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U.S. Army Institute for Research in Management Information, Communications and Computer Sciences

AIRMICS

INFORMATION CENTER PLANNING AND IMPLEMENTATION GUIDE

Revised 10/86

Final Report
(CDRL A007)
For The
Information Center Evaluation Project

Part B
INFORMATION CENTER PLANNING AND IMPLEMENTATION GUIDE (Revision)

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PREFACE

The Army Institute for Research in Management Information, Communications, and Computer Sciences (AIRMICS) is the research arm of the U. S. Army Information Systems Engineering Command,(ISEC). AIRMICS is currently conducting research into the implementation and operation of Information Centers (ICs), both in government and in private industry. One of the goals of this research was to produce this guide for use by the Army in the planning, implementation, and operation of ICs. It is based upon the experience of operating ICs in government and industry. This information was obtained from interviews, questionnaires, literature, and conferences. In an additional study, sponsored by the U. S. Army Information Systems Command (USAISC), and under the direction of AIRMICS, information was gathered from six Army installations during two site visits at each site: Fort Stewart, Georgia; Fort Monroe, Virginia; Fort Hood, Texas; White Sands Missile Range, New Mexico; Rock Island Arsenal, Illinois; and Fort Ord, California. The information gained from the experiences at each of the sites was incorporated into this manual.

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CHAPTER 1.0

INTRODUCTION

1.1 GENERAL

This guide addresses the issues raised by the introduction of personal computing in the workplace. It focuses on the issues that should be considered if the proliferation of end-user computing is to be managed within the installation; and it provides guidance to installations which are planning, implementing, or operating an Information Center (IC) to support microcomputer users.

1.2 PURPOSE

The purpose of this guide is to identify the issues which should be addressed in planning, implementing, or operating a microcomputer IC. Alternative approaches to common issues which have proven successful--in the Army, elsewhere in government, and in private industry--are discussed, as well as some of the problems that have been encountered.

This guide focuses on computer support centers, specifically microcomputer ICs. In addition to microcomputers, the IC will ultimately include all of the Information Mission Areas (IMA): audiovisual automation, telecommunications, automation, records management, and printing and publications.

1.3 APPLICABILITY

This manual provides guidance to all installations involved in the planning, implementation, and operation of microcomputer ICs.

1.4 OBJECTIVES

The objectives of this guide are to:

- Describe the background of end-user computing.
- Define the IC concept.
- Provide guidance for the planning of an IC.
- Provide guidance for the initial operation of an IC.
- Provide guidance for the continuing operation of an IC.

1.5 USE OF TRADE NAMES

To identify and properly attribute various products, a number of trade names and manufacturer's names are used in this guide. Such identification does not imply recommendation or endorsement by the U.S. Army, nor does it imply that the products identified are necessarily the best available for the purpose.

1.6 APPENDICES

Terms and abbreviations used in this guide are defined in Appendix A, which also contains definitions of terms and abbreviations commonly used in the computer industry.

A list of applicable government references is contained in Appendix B.

A bibliography is given in Appendix C.

Appendix D contains a sample user survey which may be used to aid in determining the needs of the user community.

Case studies developed from the six site orientation and evaluation visits are contained in Appendix E.

Sample materials developed by the sites visited, which are deemed to be useful to any IC are included in Appendix F.

CHAPTER 2.0

BACKGROUND

2.1 PROBLEM

The constant plea of the commander on the battlefield and the manager in the corporate boardroom has been for more and more information. With the technology available today information can be generated, processed, transferred, and stored in quantities never before imagined. It is not uncommon for the commander or manager to be inundated with information that is untimely, inappropriate, and difficult to comprehend. In short, the information received is of no real value in the decision making process. Information is one of the most precious and perishable resources. Without information that is timely, relevant, and understandable, commanders and managers cannot make sound decisions, nor can their staffs make helpful recommendations.

2.1.1 Environment

The Army has long encountered the demands for greater productivity in order to deliver more results while remaining within the constraints of its resources. Budgetary constraints are dictated by the current critical need to reduce the national debt. The constraints on funding also limit the number of personnel available to the Army. In the current economy the Armed Forces are encountering difficulties in recruiting sufficient numbers of qualified personnel. The current state of tension between the Eastern and Western Blocs necessitates that the Army maintains its forces in a high state of readiness. All of these factors, taken together, have motivated research to find ways to improve productivity. Approaches to productivity improvement include:

- Elimination of marginal activities;
- Management improvements through organizational change, mission adjustments, or work re-structuring;
- Work force training in areas where productivity deficiencies are evidenced;
- Use of more effective and efficient tools.

The IC can make its greatest contribution to productivity by supporting the use of effective and efficient tools. Then when these tools provide better access to better information, payoffs may be expected in terms of improved quality of decisions, improved performance, improved personnel motivation, reductions in effort requirements, and overall reductions in completion times for actions.

2.1.2 Technology Change

The introduction of new, more powerful technology has made it critical that the Army learn how to manage its information and the technology used to manipulate this information. These new technologies provide capabilities for communicating and revising multiple types of information in diverse high-technology user-oriented systems. The types of information include those of data, text, graphics, image, and voice. In addition to larger, faster mainframes with improved mass storage devices and fourth generation languages, the advent of the microcomputer and its user-oriented software packages has created a new era in information processing. The introduction of this new technology has been accompanied by two trends: decreased hardware costs, and increased personnel costs. The same technical advances that make cheaper computer hardware available also make it possible to implement more complex applications. Another effect of improved price and performance capability is that it is now economically feasible to justify more computer-based applications. As a result, there are more demands on the DP department for new applications than there have been previously.

There has also been a change in the background of the employees now entering the work force. Nearly all new employees have had some exposure to computers during their education. This factor means that they have more knowledge and less fear of computers than most current employees and they are demanding greater levels of service from the DP department. While programmer productivity has improved approximately two and one-half times over the last ten years, the price/performance ratio of new hardware has increased by a factor of over 100. This indicates that technology is providing opportunity at a much greater rate than programmers are capable of exploiting.

Microcomputers are an inexpensive way to deliver computing power to the user's desk for a wide range of applications. The individual has the power to create a personalized working environment from a large number of commercially available analysis tools, organizational programs, and management packages. Microcomputers have various characteristics, ranging from the "stand alone" unit to groups of micros connected over a local area network (LAN) to larger multi-user "super micros" capable of supporting a number of remote terminals. Commercially available, "off the shelf" software provides the end-user with the capability of creating complex reports, presentation-quality graphics, and merging text and graphics in written reports. Database and word processing software open up new avenues for productivity increases throughout the user community.

2.1.3 Traditional Approach

Traditionally application programs are obtained from programmers within the central data processing organization which has the responsibility for developing all programs. The early data processing applications were mainly clerical, accounting, and number-crunching applications. As hardware and software capability increased, on-line transaction-based systems were developed which consolidated databases,

coordinated functions, and permitted terminal-oriented transactions. The early applications were strictly functional-oriented with little consideration given to uses for the data outside the proponent organizational element. Management reports were in the form of listings or successive summaries, with the format specified in the early stages of design. As the need for data increased, the data processing organization became inundated with requests for minor changes to existing systems, or development of new or one-time reports for management.

2.2 USER'S PERSPECTIVE

From the user's viewpoint, the DP organization was non-responsive. The setting in which the user operated was a dynamic, changing business environment. In this setting, the user needed a quick reaction capability, to provide answers to current problems in a reasonable time frame. The DP group, already behind schedule, resisted interruptions which could only introduce further delays. There were wide differences in opinion on the time required to accomplish a particular job. The user considered the DP group inflexible because it seemed as if DP objected to even minor changes in the specifications for a program. But the most serious complaint of users was that the programs were not as useful as expected because the needs of the user had often evolved and changed significantly by the time programs were finished and delivered, Given this perspective, users perceive that microcomputers will provide an affordable, easily accessible, solution to their data processing needs, that will provide rapid results.

2.3 DP PERSPECTIVE

The DP organization felt that users did not understand the impact of their requests on DP. The DP group resented this lack of appreciation of their difficulties and complained that users always changed their minds about what they wanted and when they needed it. The personnel in the DP organization viewed themselves as the professionals who made it possible for the users to succeed, but felt that users considered programmers as expensive and only marginally useful tools.

2.4 MANAGEMENT PERSPECTIVE

Management, in addition to being concerned about the growing conflict between the users and the DP organization, became concerned about the rising clamor from the users for access to computing power via the micro computer. Management concerns include:

- Data integrity--the proliferation of data in "private" databases and the risk that these databases will not be in synchronization (i.e., everyone working from the same set of data);

- Security of data--the potential of unauthorized access to the data contained in "private" databases;

- Proliferation of terminals and the resulting impact on mainframe response;

- Proliferation of microcomputers, with the attendant risk of incompatibility and accountability;

- Loss of central managerial control of computing assets;

- Redundant applications development;

- Increased requirements for mainframe cpu and communications facilities, due to both proliferation of (1) terminals and (2) requests for microcomputer access to the mainframe databases.

2.5 EXTERNAL INFLUENCES

Within the Army, promoting end-user computing at any installation is complicated by constraints and restrictions--imposed by higher authority -- in accessing some of the "corporate" data contained in the central databases. This section presents some of the strategies of the Army as pertain to information management.

2.5.1 Three-Tier Architecture

The Three-Tier Architecture is a "first-cut" approach to producing an objective architecture. Under the concept of the three-tiered objective, a user requests an information service and the system determines the appropriate level for response. In this plan, the user would not have to know the intricacies of the software, the peculiarities of the hardware, nor the location of the data. The three tier architecture is described as follows:

TIER 1. Regional service centers using large computers interconnected by high capacity communications for rapid movement of data. These regional centers will be the shared processing resources for all Army activities. They will be used to provide consolidated information, STAMMIS processing, and all other processing not capable of being performed at the tier 2 processor.

TIER 2. Information resources required to support the organizational (HQDA, FOA, MACOM) and installation level needs. These processors will provide local data storage and processing of organization and installation level information systems.

TIER 3. At the unit or office level in the location of the information user. Users are connected to tier 2 through the base communications system. Information generated or requested at this level

will cause application processing to occur at any or all tiers based on application design and data organization.

2.5.2 The Information Mission Area Program (TIMAP)

The Information Mission Area Program (TIMAP) of the Army brings together and integrates the communications, knowledge, data, applications, and processing hardware functions to support decision makers at all levels with the best information decision support system possible.

The Information Mission Area (IMA) consists of associated resources and activities employed in the development, transmission, use, integration, and management of information. Information resources include information, doctrine, data knowledge, engineering, applications, communication, processing equipment, as well as related personnel, services, facilities, and organizations.

The Army Information Mission Area consists of three major parts: the Tactical Area, the Strategic Area, and the Sustaining Base area. Each of these three areas includes the following components: automation, communications, office automation, records management, publications, printing, audiovisual activities, and other information activities, services, and facilities.

The TIMAP is the methodology by which all programs and systems within IMA are managed, resourced, and executed. Information requirements of the Unified Command, Office of the Secretary of Defense, Joint Chiefs of Staff, and other external organizations that will be satisfied by the Army will be included in TIMAP of the Army.

The Army Information Architecture will guide the planning, control, and management of all Army information. The Assistant Chief of Staff for Information Management (ACSIM) prepares the Army Information Architecture, which describes Army information in terms of what it is, where it is, and who controls it. Each installation (or equivalent) will develop its own information architecture in accordance with the Army Information Architecture.

The Army Information Architecture is the umbrella architecture for the information mission areas. It expresses the interrelationships throughout all echelons of the Army among processes, information classes, organizations, technologies, and physical locations. An information architecture consists of an information model derived from an (1) Information Systems Plan (ISP) or other systematic analysis process, (2) a baseline configuration, and (3) an objective configuration. Together, these three information elements provide the framework for evaluating actual information needs (information model) and comparing these needs with existing (baseline) capabilities in order to ascertain how to achieve optimum capabilities (objective configuration). Through this evaluation process the manager can determine his deficiencies and prioritize his proposed solutions. The Information Management Plan (IMP) is the means through which information initiatives, that satisfy information requirements and support the information architecture, can be identified and approved. After

approval at the DA level, the IMP becomes the Information Management Master Plan (IMMP). IMMP initiatives for which resources are available may be implemented. If resources are not available, the IMMP will serve as the authority to submit funding requests to the Planning, Programming, Budgeting, and Execution System (PPBES).

2.6 ORGANIZATIONAL INFLUENCE

The Army's information manager is the Assistant Chief of Staff for Information Management (ACSIM), a principal Army general staff position. Each level of command, down to installation level, and each separate organization, should have an information manager on its staff. At the Major Command (MACOM) level this would probably be a Deputy Chief of Staff for Information Management (DCSIM); at an installation level, a Director of Information Management (DOIM); and, in a small field operating agency, a part-time information manager. The U.S. Army Information Systems Command (USAISC) is the "systems manager" and supports the commander whenever and wherever it is appropriate.

2.6.1 ACSIM

The duties and responsibilities of the Assistant Chief of Staff for Information Management include:

- Providing guidance and exercising staff supervision of the Army information management program, organizations, and systems worldwide (This includes policies, programs, plans, architecture, standards, structure, and resources.);
- Serving as proponent for, and directing the development and preparation of, specific regulations; and implementing information management policies, including Federal Information Programs;
- Developing and enforcing information management standards;
- Establishing and maintaining the Army Information Architecture;
- Acting upon recommended changes to information architectures and standards;
- Developing and approving the Army IMMP based upon MACOM and ARSTAF IMP submissions;
- Coordinating the IMMP with appropriate MACOM and ARSTAF to insure that systems meet validated needs;

- Performing periodic reviews of the Army IMMP, its goals, and its implementation to assure that it meets the Army's needs, is expeditious, and contains no unnecessary delays, steps, processes, or paperwork;

- Assigning responsibility for managing the acquisition, development, operation and maintenance, modification, and replacement of information systems.

2.6.2 USAISC

The duties and responsibilities of the U. S. Army Information Systems Command include:

- Acquiring standard items of information technology (less audio visual) and establishing requirement-type contracts for use by Army organizations;

- Developing, selecting, and executing acquisition strategies for assigned information systems;

- Developing, recommending, and enforcing technical standards for information systems (less audiovisual);

- Planning, developing, acquiring, deploying, operating, maintaining, modifying, disposing of, and replacing each Standard Army Multicommand Management Information System (STAMMIS) in support of the functional proponent;

- Providing users at all levels with necessary technical support, assistance, and advice;

- Supporting combat and material developers and life cycle managers of information systems.

2.6.3 MACOMS, O&M Commands, and Other Major Field Activities

Each of these organizations has responsibility for information management including:

- Conducting and maintaining the organization ISP, formal information studies, mission analysis, and information analysis to determine information requirements and developing the organization information model;

- Establishing information goals and objectives for the command;

- Establishing the organization information architecture in conformance with ACSIM guidance and the Army Information Architecture;

- Managing the organization information management program and establishing organization priorities for information initiatives;

- Developing and submitting the organization IMP;

- Programming and budgeting resources for the organization portion of the approved Army IMMP through the PPBES;

- Executing the organization's assigned portion of the approved Army IMMP;

- Managing the development, operation, and maintenance of assigned information systems;

- Providing information management planning guidance to subordinate commands and activities;

- Evaluating information requirements of the subordinate commands and activities, including those which are tenants on other MACOM installations;

- Including, levels of information support to be provided by the installation commander in host/tenant agreements;

- Establishing an information manager with staff responsibility for supervision of the information mission area activities within the organization;

- Establishing the DCSIM (or DOIM) as the commander or director of the supporting USAISC activity.

The organization information manager may be known as the Deputy Chief of Staff for Information Management (DCSIM) at the MACOM level, the Director of Information Management (DOIM) at the installation level, or information manager at the tenant, satellite, or regional support activity level. The duties and responsibilities of the information manager include:

- Staff supervision of the organization mission area;

- Integrating, coordinating, planning, and programming the organization's information requirements to develop and maintain the organization's information architecture and IMP;

- Advising and assisting users in the technical and managerial aspects of the requirements determination, documentation and justification process;

- Providing information support and services;

- Directing the implementation of the organization's portion of the approved Army IMMP;

- Assisting subordinate commanders in determining information requirements.

CHAPTER 3.0

INFORMATION CENTER CONCEPT

With the great influx of computer power into the workplace, comes the problem of how to support the users of this newly-found power. The IC can provide a means of helping the users through a single point of contact. It can also provide management with a strategy to deal with the problems of planning, controlling, and serving microcomputer assets.

The IC concept is the solution of preference for providing end users with the skills and support essential to long term success. This concept is proving successful in industry and many government agencies, and is currently in throughout the Army.

Because ICs are designed for specific organizations, IC mission statements vary widely. Two themes are common to most IC mission statements: (1) making technology available to the user; and (2) promoting user self-sufficiency, providing assistance as needed. The following are mission statements from government and industry ICs:

- To increase awareness of how small computer technology can enhance productivity;
- To promote greater self-sufficiency of users in the evaluation and application of computers;
- To facilitate department-wide information and resource sharing;
- To educate users in how to do their own work for some of their data processing requirements and to facilitate their direct access to data processing tools;
- To provide tools and techniques that allow users to retrieve, analyze, manipulate, and present their data and text more effectively.

The U.S. Army Military Personnel Center (MILPERCEN) IC gives the following mission statement in its brochure:

> To help end users acquire access to the computer system by guiding them through registration procedures. To train the user in the use of automation products designed for independent information processing. To provide a place and to furnish ADP products for users to work with under the guidance of trained consultants. To help users get answers to their questions and solutions for their problems by adopting their concerns as the Information Center's concerns. To provide a convenient interface between vendors and users for the showing and testing of ADP products. To publish and distribute information of interest to the ADP end user.

Section 4.3 of this guide discusses in-depth how to establish mission, goals, and objectives for the IC. Additional examples from Army sites are also given.

3.1 DEFINITION AND OBJECTIVE OF AN INFORMATION CENTER

ICs provide services which enable non-technical personnel to become self-sufficient and productive in the use of technology. The user's goal is not necessarily to acquire technical skills, but to be able to use a computer as a tool to accomplish his work more quickly, efficiently, cheaply, and with greater control of the end product.

ICs have currently been established in the Army to provide expert service to all users of microcomputers on a post, camp, base, or station. Many are providing mini, mainframe, and communications assistance as well. Ultimately Army ICs will include all of the IMA technologies, including: audiovisual automation, communications, automation (including office automation), records management, and printing and publications. This guide focuses on ICs providing microcomputer support.

3.1.1 Definition

The IC is an information, consulting, and education service providing tools and techniques that allow users to retrieve, analyze, manipulate, and present their data more effectively without being required to become computer experts. The IC staff will both assist and teach the user to satisfy many of his information needs himself. The IC also assists the end user in recognizing his acquisition needs, properly specifying them, and accelerating the acquisition process.

3.1.2 Objective

The IC promotes self-sufficiency and productivity of end users through the services it provides. These services are described in more detail in Section 4.4 and include:

- Applications consultation;
- Training;
- General support;
- Change agent.

The IC provides end users with the right products (tools) to access data on their own terms. One way to do this is through consultation. The term consultation covers such activities as answering specific questions on hardware, software, and education, as well as providing product selection assistance and demonstrations.

The IC provides training opportunities to teach the end user how to employ hardware and software effectively. The Center may also offer general computer literacy training and teach users how to access mainframe data bases. Training may include both formal and self-administered courses, exercises, or projects to be performed using the selected product.

General support activities facilitate the IC's ability to respond to the broad spectrum of requests for assistance made by users. Under general support, the IC provides assistance in the acquisition of hardware, software, and general supplies; a library of software; hotline support; and problem resolution.

As an agent of change, the IC provides a means of introducing new technology and methods into the workplace. This ensures that state-of-the-art technology is effectively being introduced into the organization.

3.2 BENEFITS OF AN INFORMATION CENTER

The entire organization benefits through the use of the IC; that is, the use of the IC maximizes the use of scarce and valuable resources in an effective and productive manner.

3.2.1 End User Benefits

Given the skills provided by the IC, end users can apply available technology to increase job productivity. Routine tasks can be automated, information processed efficiently, and the results effectively utilized in the decision making process. Enduser benefits include:

- Single point of contact for technical support;
- Improved productivity;
- More timely information;
- Improved accessibility to command data;
- Improved responsiveness to needs.

Because the IC offers integrated technical support, the end user can contact a single source regardless of whether he needs to learn a new software package, is planning a hardware acquisition, or needs consultation on a specific application. Additional advantages of the single point of contact are as follows:

- Reduces the time spent searching for the right person to answer questions concerning hardware or software;

  Provides the "same" person to talk to so that the problem does not need to be re-explained each time a call is made;

- Promotes positive relationship between IC staff and user making the IC a non-threatening place to go/call.

Microcomputer technology enables end users to automate many routine tasks that, because of their small nature, would never have been submitted to the data processing department. Examples of such tasks might include personnel rosters, meeting agendas, schedules, and executive calendars.

User productivity is increased when labor intensive tasks such as word processing for example, are reduced. Most documents go through several drafts. If the first draft is typed, or better yet, composed on a word processor, then succeeding drafts do not have to be retyped. Corrections, changes, and movement of paragraphs can be accomplished on the word processor, resulting in considerable time savings. Most tasks that are performed routinely can be accomplished more efficiently if automated, such as periodic reports, inventories, and budgets. Improved quality is often associated with increased productivity. Because a document is typed only once, for example, less time and effort is spent in redraft and correction of careless mistakes.

As repetitive tasks are eliminated, the user has the opportunity to handle more activities. Consequently, the user often finds the increased variety and challenge in his work gratifying. Heightened productivity may result from this satisfaction.

Using computers improves the quality of decision making in two ways: first, the quantity and currency of the data is increased; and second, the ability to create various simulations is possible. When more data is available more quickly, the user has more information on which to base a decision. Where procedures are in place to validate the accuracy of the information, there is no need to correct the effects of an invalid decision. The increased ability to test alternative solutions with the use of the computer enhances the problem solving process. Better decisions result. With the computer, the user can ask a series of "what if" questions and compare the outcomes; for example, the user could examine how the costs of different grades of paper would impact the total budget of a newsletter over a given period of time. In this kind of analysis the computer becomes an intelligent assistant.

The IC provides improved responsiveness to user information needs where users are provided mainframe access through their microcomputers: elimination of time usually spent filling out computer keypunch forms; reduction of the filing and maintenance time associated with voluminous computer listings; and shortening the non-productive time spent waiting for reports that are required for decision making to be processed and printed.

Several factors contribute to the ability to get information in a more timely way:

- Elimination of manual systems for augmenting machine data;
- Access to data at the time it is needed;
- Reduction of time spent searching through voluminous computer listings to locate specific or limited amounts of data.

The IC offers the opportunity for users to get improved access to command data. In order for this to be feasible, interactive query may need to be added to already existing batch applications. Security controls will also need to be considered. With access to command data departmental data, currently maintained manually, may be automated. With improved access, less time is spent waiting for special updates during the intervals between regularly scheduled report dates.

The IC supports end users with the tools and expertise required for faster implementation of already defined applications. The IC also provides improved responsiveness to departmental needs because of its ability to answer ad hoc questions on demand.

3.2.2 Management Benefits

Management realizes benefits gained through the reduction of wait time for information necessary in decision making, being able to perform ad hoc queries, and getting responses using current data:

- Improved currency and timeliness of information;
- Rapid application development;
- Earlier application payback;
- Cost containment.

In an environment where the pressure for time and data is great, the benefit of end user computing is the reduction in the wait time for the information required in management decision making.

Enduser computing tools enable automated command databases to be updated easily. As a result, they can be updated more quickly and more often. The data available to decision makers is therefore more current and is available on an ad hoc basis.

Through the assistance and end user tools available in the IC, small applications can be developed more quickly reducing the time management must spend in planning and coordinating new application development.

Earlier payback can be gained by improving the information upon which decisions are made and by reducing the direct expense for outside programming services and management time devoted to contracting for these services.

One of the potential benefits of the IC is in the reduction of installation hardware and software costs. This is because the IC provides resources to increase the effectiveness of decision making about these products. In other words, fewer inappropriate products will be purchased, and some cost containment would be achieved through the control of products purchased to insure compatibility. This same benefit can be achieved through the use of the standard Army contracts for microcomputers.

In addition, with end users satisfying a greater portion of their information needs, there may be a reduction in the use of the data processing department and a corresponding reduction in data processing charges.

3.2.3 DP Department Benefits

The IC does not replace the traditional data processing department it expands it. Without an IC, there will continue to be a need for the traditional systems approach. The result of end user computing is often a new appreciation and respect for the role and contribution of the DP. When end users become computer literate, they are better able to communicate their needs and to appreciate the capabilities of computers when they do require applications development.

In many organizations, the average end user may have very little access to, and even less knowledge of, the data processing facilities that are available. Therefore, an entirely new resource is made available to that end user.

Applications development backlogs and communication difficulties with non-technical personnel contribute to the negative reputations held by many data processing departments. Data processing departments reap several benefits with the addition of an IC. Because ICs are service oriented, they demonstrate DP's enhanced responsiveness to the requirements of users. The DP image also improves because users begin to see it as helpful rather than obstructive.

With end users taking responsibility for more of the smaller computing tasks, the data processing department can focus more attention on larger systems development projects.

3.3 CRITICAL SUCCESS FACTORS FOR AN IC

The use of Critical Success Factors (CSFs) has become a popular approach for identifying activities required for success. CSFs have been defined as the areas in which results, if they are satisfactory, will ensure successful performance for the organization. The important factor is the anticipated results of allocating resources to achieve the success factor, not the selected activities. Many managers select CSFs based on their "perceived" objectives. Review of the set of factors with upper management is an important part of the process of identifying CSFs. Communicating CSFs, both upward and downward, proves to be informative and also provides an opportunity for acceptance or modification. Discussions of modifications often create a new and significant interplay between different levels of management. When upper management accepts the CSFs, the organization is then directed to perform activities and allocate resources in accordance with the relative priorities established for these CSFs. Studies of information systems, end user services, and IC like organizations have found seven common CSFs for IC managers:

- Planning;
- Service management;
- Application directions and strategies;
- Enduser and personal computer strategies;
- Information and asset protection;
- Personnel development and management;
- Contribution to the organization.

3.3.1 CSF Number 1--Planning

Planning is the first and foremost CSF for the information service organization. The development of long-range goals and objectives, based upon the mission, goals, and objectives of the parent organization, ensures management commitment for resources. Questions that should be answered during the planning process include:

- What are your organization's information needs likely to be next year?
- What are your organization's future hardware and software needs?
- What kinds of benefits will the IC's activities realize for the organization?

Planning moves from the general to the specific. It requires development of a strategy, organization of tactics, creation of a budget, and allocation of budgeted resources accordingly. It means establishing standards so that equipment and software are not acquired haphazardly, even if the IC is not in the position to control the acquisition of the equipment and software.

The development of a strong support organization for new end user computing functions and delivery systems should be a part of every plan. The structure should reflect the organization's philosophy and also provide for the proliferation of multiple information types throughout the organization. The cultural changes that are occurring--and will continue to occur--in every organization will be vastly different from those of the past. The successful facilitator of information technology growth will provide for strong client support, quality services, and regular communications of results to executive management.

Develop a plan that considers or forecasts the direction of the organization, and place the information delivery function in a strategic position. This will help win senior management commitment and will develop the service functions into meaningful responsibilities for both DP and the IC.

3.3.2 CSF Number 2--Service Management

Successful ICs translate their objectives directly into quality service for the end user clients. No business survives unless its customers are satisfied: successful ICs maintain a high level of end user satisfaction. Speed (rapid response time and turnaround) is one component of high end user satisfaction. But end users want quality and usability in addition to speed, and the IC must balance quality and speed. The successful ICs seek new opportunities to "create" success within their user organizations. Managing user expectations provides a clearer understanding of satisfactory performance and the continuation of positive inter-departmental relationships.

The highly successful ICs provide the users with a single point of contact for resolution of information management problems. The IC should position itself between the users and both DP and the vendors. This approach keeps the IC in close touch with the users and makes the support provided more responsive.

When planning for users' services, the IC should anticipate the need to support communications and distributed systems. The successful IC will anticipate the need of a new service, and plan a strategy for responding to the need before the users realize they need such a service. When users receive new easy-to-use tools and assistance in finding sophisticated ways to accomplish their objectives, the users realize the value of their IC.

3.3.3 CSF Number 3--Application Directions and Strategies

Part of the role of the IC is to assess user application requirements and assist users in determining the best resource to fulfill their need. Strategies for software creation or acquisition should include criteria for ease of use. Other things being equal, simple applications are easiest to use and easiest to modify. This enables the IC and the end users to respond quickly to changing conditions.

But more is required from the IC than just application selection or software delivery. The decision process needs to include the direction for multiple information types with integration of software, communications, and data distribution plans. Direction should be set for new office applications, electronic mail, specialized printing, database creation, and telephony (voice) applications. A rationale, or set of guidelines, is needed for application directions and data distribution. Users need leadership for innovative use of new technology.

3.3.4 CSF Number 4--EndUser and Personal Computing Strategies

Planning for microcomputing strategies is more than just planning for the hardware. It also includes determining the direction for use of intelligence: people intelligence and workstation intelligence. Discussions with users and managers reveal that the placement of computer workstations

in front of professionals provides far greater benefits than those enumerated in the initial justification. In other words, users find more uses for the computer than they originally expected. Often a standalone micro is expected to fulfill the user's needs, but experience shows that soon many users want to connect their machines to other computers. Strategies should include priorities of when and how end users will be connected to other microcomputers, the communications gateway, or the central mainframes. The use of work groups or departmental computers can ease the workload burden on the mainframe, the communications network, software, workstations, and personnel. The most successful ICs establish standards and guidelines for information and data access that incorporate generally accepted principles.

As an organization uses new technologies, the learning curve becomes less of a challenge for those users with previous experience. Experienced users want more specialized technology as they become more sophisticated and knowledgeable about the capabilities of the technology. Personal computing strategies should anticipate this challenge and address it before users begin to demand individualized applications and hardware.

3.3.5 CSF Number 5--Information and Asset Protection

There is more to microcomputing strategy than knowing how to make use of the machines. Given the current state of the technology it is virtually impossible to protect data and software through system design alone. The end users must understand their responsibilities in information processing. Just because a new machine makes it possible for them to access protected data or copy software, it does not mean that they can do it with impunity. The IC manager must encourage the end users to conform to the requirements for security and privacy. User management also has a responsibility in ensuring that these requirements are followed. Diskettes, programs, software guides, and printed output must all adhere to the established guidelines for the handling of classified and private data.

Information and asset protection goes beyond rights and responsibilities. It requires a data security analysis, contingency planning, and procedures for back-up and recovery. Data and programs must be protected against natural catastrophes and system failures as well as human alteration. The users must also be educated in how to protect themselves. ICs should implement data security standards, system security planning, and disaster recovery plans and techniques and ensure that the user community is knowledgeable of them.

3.3.6 CSF Number 6--IC Personnel Development and Management

The IC is only as effective as the people in it. Many successful ICs select their staff on the basis of their "people skills." Product and systems knowledge is important but, unless the IC staff can communicate that knowledge to the user, the knowledge is useless. Using the skills of small group interaction, negotiating, resolving conflicts, maintaining rapport, overcoming opposition, gaining acceptance, and influencing

decisions become powerful techniques for interacting with varied users, and higher levels of management as well.

Developing good staff is not enough, however. The IC must create meaningful career opportunities for the staff in order to retain them. Most successful IC managers establish staff training as a high priority and do everything possible to ensure that their people have promising futures with the organization. They, the IC managers, must also be ever alert for opportunities to cross-train their staff with both DP and the user community.

3.3.7 CSF Number 7--IC's Contribution to the Organization

The seventh CSF is the IC's contribution to the organization. The most effective ICs are a fundamental part of the organization's overall strategy. They provide services that the organization feels are central to it's mission. The IC can make sure it is contributing to the organization by planning, providing services, creating and implementing application strategies, developing and following strategies for microcomputing, ensuring information and asset protection, and effectively managing and developing people.

The successful IC manager, in addition to all of the above, seizes every opportunity to make executive management aware of the IC's contribution to the goals and objectives of the organization. The IC manager must constantly strive to obtain user commitment to make management presentations on applications developed with the IC's assistance, detailing the benefits achieved.

3.4 PITFALLS OF AN INFORMATION CENTER

The satisfactory performance in the CSF areas ensures success. In addition, significant problems, or pitfalls have been identified by government and industry ICs that have interfered with their ability to achieve success. In some cases the problems were severe enough to lead to the failure of the IC.

3.4.1 Pitfall Number 1--Failure to Organize and Manage the IC as a Business Within a Business

The IC must be organized and operated according to sound business principles, including performing the following basic business functions:

- Planning--selecting objectives, policies, programs, and procedures (This must be a continuing process, looking ahead and ensuring that the IC has the capability to respond to the users' needs.);

- Organizing--establishing the work to be done and determining the relationships between tasks required to achieve objectives, assigning activities, and delegating responsibility;

- Staffing--selecting and training people to fill available positions; securing competent talent to perform necessary tasks for which positions are not available;

- Marketing--promoting the objectives of the organization as a whole; ensuring flexibility and adaptability;

- Evaluation--determining whether or not objectives are being achieved and taking corrective action if they are not.

3.4.2 Pitfall Number 2--Failure to Understand the Real Cost of End-User Computing

A solution is to develop a simple, informative method of tracking true end-user computing costs and keeping track of:

- Equipment;

- Software;

- Connect time;

- Training (time and dollars);

- Consulting and guidance;

- On-going support;

- Timesharing;

- Networking;

- User productivity (increases and predictable decreases);

Reference materials;

- IC staff productivity;

- DP staff productivity.

These end user computing costs should be reported on a recurring basis to:

User management;

Top management;

DP management;

- IC management.

3.4.3 Pitfall Number 3--Inaccurate Understanding of the Roles and Responsibilities of the IC by Other DP Areas

The problem can be reduced by opening the lines of communication to DP and clarifying interfaces and responsibilities. The following issues must be resolved between the IC and DP:

- Which responsibilities and functions has the IC taken from some other area?
- Which functions does the IC share with some other area? How can these responsibilities be clearly defined?
- What resources, needed by the IC or its customers, are under the control of some other area?
- What political problems exist between the IC and some other area?
- What people and knowledge resources might the IC borrow from some other area?
- How might the IC help some other area?

Among the ways the communication gap between IC and DP may be bridged are:

- Regular routine information exchanges;
- Using other DP personnel as guest speakers at user group meetings or as guest lecturers in training sessions;
- Making DP personnel satisfied customers.

As an example, Fort Hood is planning an Information Management Council which would bring together on a regular basis tactical unit information managers with the DOIM and staff.

3.4.4 Pitfall Number 4--Lack of Marketing Strategies and Plans

The IC must plan and implement targeted promotions in order to reduce the magnitude of this problem. The concerns to be addressed include the following:

- Make marketing someone's responsibility;
- Set specific goals and objectives;
- Have a contingency plan.

The elements of a marketing strategy include defining the potential targets, the products to be advertised, the location of the products and

demos, and expected costs (if any). Promotions can include such things as personal selling to management and user staff, using various publications of the IC and installation, and presentations at user meetings of various types. An in-depth discussion of IC marketing is found in Section 6.1.

3.4.5 Pitfall Number 5--Failure to Operate the IC as a Service Organization

This problem can be reduced by implementing and managing the IC as a service organization, not as a control organization. This does not mean that control of the organization's computing resources is not essential but, rather, that the IC should be seen as a friendly source of aid, not another "big brother" watching over the end-users. Other considerations include:

- Do not get bogged down in developing applications for the users, thus becoming a bypass of the DP organization and getting into the same backlog situation as DP;
- Do not promise what you cannot deliver;
- Remember that excellent service can compensate for bad products, but nothing makes up for bad service;
- Give your staff customer service training.

3.4.6 Pitfall Number 6--Lack of Top Management Commitment

Define clear and measurable objectives accountable to top management and establish procedures for reporting progress toward achieving those objectives periodically. Other considerations include:

- Management will not support what it does not understand nor what does not contribute to its goals;
- Define IC goals in keeping with management's goals and objectives and be responsive to the command's priorities;

  Determine your own measures of success and get management to approve them;
- Recognize the difference between management's being committed and being merely involved.

3.4.7 Pitfall Number 7--Not Being Successful Enough Fast Enough

Insufficient planning and preparation have caused the most headaches for the IC. Below are some techniques for reducing these problems:

- Start small but be prepared to grow rapidly. Establish plans and procedures to control the growth;
- Deliver what you promise, and do it well;
- The pilot project must be successful because it has very high visibility;
- Plan ahead to be able to provide new services as users reach new levels of computer competence;
- Seek innovative means of increasing the capability of the IC to provide user training to the greatest number of users.

3.4.8 Pitfall Number 8--Users Failure to Understand the Role of the IC

The development and promulgation of a comprehensive User's Manual is essential if the IC is not to encounter user expectations that are not achievable. This manual should clearly delineate the responsibilities of the IC and the users. To be truly effective, the manual should be sponsored by, and approved by, a person or group which is perceived as acting impartially in the interests of the total organization. The table of contents of the ADP Information Guide developed by Fort Hood is found in Appendix F.

Among the fallacies encountered in IC/end-user relations are:

- The IC will do it all;
- Documentation is not necessary;
- Security and privacy do not matter;
- Application testing and validation are not important.

CHAPTER 4.0

PLANNING PHASE

This chapter describes some of the issues which must be addressed when planning a microcomputer IC. It also presents some of the alternative means that have been taken in approaching these issues. Examples from six Army installations are included: Fort Stewart, Georgia; Fort Monroe, Virginia; White Sands Missile Range, New Mexico; Fort Hood, Texas; Rock Island Arsenal, Illinois; and Fort Ord, California. Information was gathered from these sites as part of a project to determine how ICs have been implemented in the Army. Case studies summarizing the ICs at each site are found in Appendix E. Materials developed by these sites are reprinted in Appendix F.

The planning process should be a participative and on-going function carried out by a committee composed of members representing the various groups likely to be affected by the decisions made, e.g. users, data processing, and management. Such groups may already be in existence, and bear titles such as Information Management Council, or Executive Steering Committee. The end product of the planning phase should be a strategic, or operating plan which recommends the policies and procedures need to guide the IC through its implementation and on-going operations phases.

The planning phase builds the crucial foundation for the on-going operations of the IC. The planning phase is not a luxury; it is a necessity. Occasionally an IC manager learns on Friday that he will open an IC on Monday. In that scenario, it is recommended that the activities of the planning phase occur concurrently with the first several months of the IC's operation. And, if possible, the IC should provide support on a limited basis until its operating plan is established. The phases of the planning process include:

- Complete a needs assessment and analysis;
- Define IC mission, goals, and objectives;
- Determine organizational interfaces;
- Decide service options;
- Develop strategic plan.

The importance of planning is also presented in Section 3.3.1.

4.1 COMPLETE A NEEDS ASSESSMENT AND ANALYSIS: THE ORGANIZATION

In order to provide the background for the needs assessment and analysis, an over view of the organization is needed, including a profile of the organization; what user support is currently offered in the organization; what the managers of the organization expect from the IC; and the existing resources and contraints within the organization.

4.1.1 Assessing Current Status of the Organization

A profile of the organization should contain the following information and documents:

- Installation mission;
- Tenants and/or satellite activities;
- Number of military and civilian personnel;
- Information Systems Plan (ISP);
- Information Management Plan (IMP).

As stated in Section 3.3.7, the most effective ICs are a fundamental part of the organization's overall strategy. In planning for the IC, the planning team must position the IC and its mission in line with the overall purpose of the organization. In order to effectively plan for the IC, the staff must also know who its potential users are. The information contained in the installation's ISP and IMP will provide a starting point for assessing the current and anticipated status of information systems in the installation (Section 4.2).

4.1.2 Purpose Envisioned by Management

The installation management may have specific ideas about what the IC will achieve; some possible accomplishments expected of the IC include:

- Improved efficiency and effectiveness;
- Management and control of end user computing efforts;
- Change agent;
- Improved image of DP;
- Reduce DP backlog.

These expectations may not be verbalized; therefore during the planning phase the IC should interview installation management to ascertain the purpose that managers envision for the IC. If the IC feels that management expectations are unrealistic, then clear definition of the mission and goals of the IC are an especially important part of the planning process. Further the IC may need to provide management briefings to address these concerns directly. Management concerns, and management benefits are further addressed in Sections 2.4, 3.2.2, 3.3.7, 3.4.6, and 6.1.

4.1.3 Existing User Support Services

Interviews with the installation organizational elements will provide information about existing support services, in order to prevent any unnecessary duplication of effort in the IC. The planning committee should determine:

- Support currently offered by DP to end users;
- Microcomputer training currently available via CPO, or other groups;
- What informal mechanisms of support are in use (e.g. user initiated user groups).

Potential relationships with existing support providers are presented in further detail in Sections 4.4, and 4.5.4.

4.1.4 Existing Resources and Constraints

The IC should enumerate as many existing resources and contraints as possible during the planning phase, including:

- Available funds;
- Available personnel;
- Available equipment;
- Available space.

The IC is primarily an "out-of-hide" organization, however acknowledging the given resources and constraints will enable the IC to define the scope of its mission and activities accordingly. Strategies for staffing are presented in Section 5.1, sources of equipment and space considerations in Section 5.2.

During the planning process, the IC may want to address ideas about how it could recover part or all of its operating expenses. The ICs currently operating in the government, are funded, generally, as part of an ISC equivalent (e.g., Office of Information Resources Management, Division of Automated Information Services, Office of Data Management and Telecommunications). Under this model the services of the IC are not charged directly to the user. Typically, this arrangement enables users to take advantage of the IC's services with a minimum of paper work. The IC is responsible for tracking how the IC is used and by whom. Before the Center opens, the IC management should design a system to track use of the Center. This data should be regularly reported to user management, to maintain the visibility of the Center. In addition, these reports will provide managers with comparative information should a charge-back system be put in place. ISC funding and charge-back for services provided by ISC is currently under study.

4.2 COMPLETE A NEEDS ASSESSMENT AND ANALYSIS: THE NEED

The determination of the needs of the user community and the current capability of the DP installation to support these needs are vital if the IC is to provide the types of services that meet the needs of its users. It is imperative that both user and DP management be involved in this process in order for the real needs of the organization to be addressed. Although the primary emphasis of this analysis (and of this P&I Guide) is directed toward the support of microcomputers in the user community, the information gathered in this step should also provide indications of the future directions that an IC must take in order to continue to meet the user community's needs and of the impacts of end user computing upon the DP installation.

Assessing the current status of the organization involves the determination of what systems currently exist, what data or information is currently available within these systems, and what the users perceive as major deficiencies in the current systems. The content of the data files maintained by current systems and the capability to access/extract data from those files must be determined. The existence and status of a command data dictionary must also be determined. The existing hardware, software, and data in use on the installation, and those that have been planned can be summarized in a table format, such as is shown in Figure 4-1.

The report of the command ISP study can provide an initial overview of the current state of the organization. The architectures and matrices developed by the ISP provide insight into the information needs throughout the command. Problem reports and analyses indicate the user's perspective of deficiencies in existing systems support.

4.2.1 Identification of User Types

There are three distinct categories of potential end users of an IC. They are management users, professional users, and clerical users. Each of them has differing support needs. The management user's needs are typically categorized as decision support needs, or the need to analyze alternative solutions to a problem and evaluate "what if" situations. The professional user is mainly concerned with performing various statistical analyses in connection with the control of on-going daily operations. The clerical user's main needs involve the need to manage the creation, revision, and distribution of various classes of documents. In order to determine the types of hardware and software support required, the numbers of each category of user and his primary requirements must be identified.

- Existing & Planned Hardware, Software, & Data Mainframe, Mini, or Micro Systems (circle one)

	EXISTING	PLANNED
SYSTEM		
DATA OR INFORMATION AVAILABLE ON SYSTEM		
SOFTWARE USED ON SYSTEM		

FIGURE 4-1

In addition to defining the classes of users, the current degree of "computer expertise" of prospective users must be determined. The amount and type of training resources required will vary greatly as a direct function of the users' different levels of knowledge and expertise in the use of information systems and tools. The successful IC will need to be prepared to meet these varying degrees of knowledge and expertise regardless of the range of variance encountered.

4.2.2 User Needs Survey

A thorough preliminary analysis of the needs of potential users will provide the foundation of an IC. This analysis should cover the information requirements of the users, the implied data access requirements, and the computational/manipulative capabilities necessary to support these needs. The survey should cover needs to support the user's day-to-day operations in addition to the preparation of responses to one-time queries. It should identify the data needed, its source, where it is stored, and whether it is used by other departments. The survey should solicit information regarding known future requirements, such as new or modified reporting requirements. A more detailed sample survey questionnaire is given in Appendix D.

4.2.3 Determining Type Of Support Needed

The analysis of the users' needs defined above should enable identification of software and hardware that will adequately support those needs. Analysis of the user needs surveys, plus inputs from the installation IMP, can provide source information for extraction of these needs.

4.2.4 Determining Types of Software Support Required

Several general categories of software may be required by potential users. The needs may exist in both the mainframe and microcomputer contexts. The real difficulty lies in finding a subset of the myriad of available products which will both satisfy users' needs and coexist as a coherent integrated library of productivity tools. The general categories are as follows:

- Electronic mail;
- Document preparation/word processing;
- Document storage and retrieval;
- Database query;
- Electronic spreadsheet;
- Planning/forecasting/business modeling;

- Business graphics;

- Statistical analysis;

- Report writer;

- Training;

- Communications.

A useful means of displaying the results of the analysis is the creation of a matrix with generic software needs along one axis and department identifiers along the other. Various symbols can be defined to indicate the degree of need for a type of software by a given department. An example of the matrix is shown in Figure 4-2. Note that neither the list of departments nor the list of software categories is complete.

	PER	JAG	LOG	COM	OPS	AG	ENG	IRM
Electronic mail								
Word processing								
Document handling								
Database query								
Spreadsheet								
Mathematics								
External data svcs								
Database mgmt								
Modeling								
Statistics								
Training (CBT)								
Data link								

Figure 4-2

4.2.5 Determining Types of Hardware Support Required

Hardware support requirements can be segregated into three generic categories:

- Stand-alone microcomputers with or without an internal hard disk.

- Multi-user microcomputers with one or more satellite workstations.

  Micro-to-mainframe links for either of the above, or for existing microcomputer hardware.

The plan should indicate the numbers of each of the following expected to be installed in user areas, and the numbers and types of each to be provided within the IC for training/demonstration purposes:

Microcomputers;

Printers;

Modems;

Plotters;

Terminals.

A matrix of departments versus hardware, similar to that shown for software (Figure 4-2) provides a concise means of displaying the array of hardware needs determined. It may also be used to identify those users or user areas where there exists an opportunity for resource sharing; for example, several departments may be able to share a plotter or a high-speed printer.

In addition, some consideration should be given to additional main frame host dependent hardware, typically on-line terminal services, that provide easy and direct access to existing production systems if such a capability exists or is planned for in the DP installation.

4.3 DEFINITION OF MISSIONS, OBJECTIVES, AND GOALS

Given the information gathered during the needs assessment and analysis, the planning team has understanding necessary to develop a set of missions, goals, and objectives for the IC. The overall statement of missions, goals, and objectives should include what will be done, how it will be done, who will do it, what is and what is not appropriate in an IC environment, and how the IC's performance will be measured with respect to the goals and objectives.

4.3.1 IC Mission Statement

Mission statements usually include one or more general description(s) of the purpose and intent of the IC. For example, from Fort Hood's DOIM Mission and Functions Statement:

> Provides central point of contact for all data processing and data communications assistance for III Corps and Fort Hood units and activities.

Other possibilities include:

> Promote better understanding of the capabilities of small computer technology;
>
> Play a key role in assuring the effective implementation of computer technology in Army organizations;
>
> Facilitate increase self-sufficiency of end users;

- Coordinate organizational information and resource sharing.

Additional mission statements from government and industry ICs are presented in Section 3.0.

4.3.2 IC Goals

Goals take the form of functional statements which specify more explicitly the purpose of the IC. One mission statement may be further defined by several goal or function statements. The following were excerpted from the two year projection of work tasks of the Fort Ord IC:

- [Provide] instruction center for all computer systems (PCs and mainframe) on Fort Ord;
- Maintain training aids and software library;
- Receive and investigate all new software for integration into the systems (PC and mainframe) on Fort Ord;
- Conduct software and hardware support activities.

Other possibilities include:

- To provide end users with tools and techniques which allow them to access their data on their terms, manipulate that data, and present it in meaningful ways;
- To assist installation personnel in addressing command problems by serving as a source of:
  - Equipment and program selection for problem solution by end users;
  - Technical assistance in obtaining data and operating programs;
  - Training in the use of equipment and software;

  To improve personnel productivity by expediting methods for individuals to reduce clerical effort, to develop data manipulation capabilities, and to build databases of information that can help middle-level and senior-level management to use computer methods in studies and analyses.

4.3.3 IC Objectives

The objective statements define the services and activities the IC will implement to fulfill its mission and goals. In defining the objectives of the IC, the planning team should define specific, measurable results. For example:

> Train 70% of clerical personnel on the word processing package within 90 days after the software is received.

After the mission and goals are defined, it often works well to brainstorm activities or services that will fulfill a specific goal. Once the general method (activities and services) have been defined, it is easier to define specific objectives. A sample worksheet illustrating how goals, objectives, and services support a mission statement is found in Figure 4-3.

4.3.4 Fulfilling the Mission of the IC

What follows is a discussion on how typical missions, goals and objectives of the IC can been met. General examples are given. The topics included is not intended to be exhaustive, nor are all appropriate for each IC.

- Reduction of Data Processing Backlog

Traditionally, the DP backlog is thought of as the long list of applications development and/or modification requests that are in queue waiting for DP to obtain the resources to perform. There is another backlog that is not as prominent as this: the backlog that exists because the application was so small the users felt it stood no chance for approval or because the users have given up hope of ever getting any response from the DP department. The IC will probably not have much impact upon the "known" backlog except for possibly the reduction in requests for relatively simple changes to report formats, or the reduction of time lost in responding to the urgent one-time requests for massive printouts of data. The "unknown" backlog, the size of which can be estimated from the responses to the users' needs survey (Section 4.2.2) will be the one most impacted by the IC. Objectives and goals, however, must be set with respect to both the "known" and the "unknown" backlog if the IC is to show how well it meets the needs of the user community. A measure of success might be the percentage each backlog has been decreased or the reduction in the number of special one time data printouts.

SAMPLE PLANNING WORKSHEET — GOALS, OBJECTIVES & SERVICES TO SUPPORT A MISSION STATEMENT

MISSION	GOAL	OBJECTIVE	SERVICE/ACTIVITY
• Increase awareness how computer technology can enhance productivity.	• Make employees aware of the technology available to them at their installation. • Provide information on how computers can improve productivity.	• Give briefings to 50% of division staff meetings by end of quarter. • Provide articles to installation newsletter twice a year. • Hold quarterly user group meetings.	• Briefings • User groups • Articles in newsletters, newspapers, electronic bulletin boards • Open house • Demonstrations • Film series

FIGURE 4-3

- Increase User Productivity

User productivity can be defined as a ratio of the number of hours a job took using conventional manual methods to the number of hours the same job takes using an IC product; for example, if a user took eight hours to do the job previously and it only takes one hour now, that user has achieved a productivity gain of eight. Experience from Army ICs has shown that productivity gains range from a low of 1.5 to a high of greater than ten (10) depending upon the task and upon the productivity tool used. Higher productivity increases will be achieved when the tools are better matched to the needs of the task and to the capabilities of the user. A suggested first year target for productivity gains should be an average gain of about eight.

- Improve User/Data Processing Relations

The widely divergent perceptions of the users and the DP department have been discussed in Chapter 2. The IC should be organized in such a way that all users approaching DP for assistance receive a single, coordinated solution, not a competitive run-around between the IC and the DP applications development group. This does not imply that the IC has the final say or that it, in any way, controls the activities of the applications development group. Rather, it implies that the IC should assist the users in formulating their requirements and in selecting the proper vehicle for the development of the application to meet their needs. Those applications which are inappropriate for IC involvement can be better defined prior to submission for development when the IC provides assistance to the users prior to submission.

Measurement of the degree of improvement in end user/DP relations is subjective at most. A possible means of assessing the change is through regular use of user satisfaction surveys which solicit information regarding the user communities' satisfaction with the services provided by the DP department as a whole, including the IC.

- Provide User Access to Data

User data needs may be separated into three categories: (1) private user data, (2) public purchased data, and (3) protected command data. Private user data is defined as files of data created by individual end-users that other people do not really have a need (or right) to use. These files include drafts of memos and reports, personal programs for analyzing data, plans still in the formulating stage, etc. Public purchased data includes data extracted from public access time-sharing database services. Protected command data is that which is contained in mainframe databases. It is this last type of data access that has a major impact on the planning for the IC.

Management concerns arising from providing user access to command data include: (1) impact on mainframe response time due to user access to command data files, (2) maintenance of data integrity, and (3) maintenance of data security. Options for providing user access to command data range from no access to read (extract) only access to full read/write access. No access implies that DP/IC must be tasked with developing the means of providing extracts of data to the users. Routine or on demand updates of

the extracts can then ensure data integrity and concurrency. Read_only access implies that a link between the user's hardware and the mainframe must be established, and that the user must then take the responsibility for ensuring that updates (extracts) are made in a timely manner. Read/write_access creates an additional risk to data integrity in that users may change data in command files, possibly by-passing any editing and validity checking/auditing requirements that may exist for that data. For data contained in STAMMIS or VIABLE systems, it has been mandated that there can be no updates which do not occur through the system's input facilities.

Users' data concerns include stability of data, volume of data, and control over their data. Stability and volume relate to the frequency of change and amount of change to the data during each update. Where their data is not updated via extracts from central files, there is an attendant risk of errors made while entering the updated data. Control over their data includes accessing the data when wanted and controlling who, other than themselves, can access the same data.

A measure of the degree of success in meeting this objective is calculation of the percentage of requests for data that has been fulfilled within the time constraints specified or provided at the requested intervals. A realistic initial goal should be about 75 percent during the first year and increasing to about 95 percent as the Center matures.

- Control_Proliferation_of_Microcomputers

End-users will have a perception of an IC in terms of whether it is supportive, as a source of information and assistance, or controlling, in a sense of being an obstacle or hindrance rather than a help. This perception will likely be drawn as much from the methods used to exert whatever controls are applied as from the existence of the controls themselves. The use of incentive-based techniques that encourage users to select hardware and software that has standardized can provide both assistance to users and control at the same time. An example of such a technique is through establishment of various levels of support for the products in use in the installation. Standard products would be supported in more depth than non-standard ones.

Examination of the inventory of microcomputer hardware and software can demonstrate the degree to which the IC and the standard Army contracts have successfully influenced the acquisition of products.

- Encourage_Introduction_of_New_Technology

As an agent of change, the IC can provide a means of introducing new technology and methods into the workplace. This ensures that a state-of-the art technology is effectively introduced. Through its relationship to other ICs, the General Purpose Computer Support Center (GPCSC), and the Small Computer Engineering Center (SCEC) the IC will be in a better position to evaluate new releases of software and new pieces of hardware than the end users. Therefore, the IC should be the point of contact or interface between the users and vendors of new technology.

- Improve Decision Making Process

The IC contributes to improved decision making through making more data accessible to the user and providing the tools and techniques that enable the user (decision maker) to evaluate more alternatives than currently possible using manual techniques. It can also provide the tools which enable the user to examine various "what if" situations where the decision must be made under a degree of uncertainty. These tools can also enable the decision maker to obtain more frequent, and even previously unavailable, reports to aid him in day-to-day operational management.

- Provide Capacity Planning Data

Evaluating and projecting end user computing requirements will provide vital capacity planning data for the DP department. Users' data extract needs, for example, may seriously impact mainframe response time and production scheduling. Establishment of microcomputer links will impact loading on installation communications facilities. Micro-to-main-frame links will also have a definite impact upon mainframe loading.

- Reduce External Time-sharing Costs

Where users have set up and are using outside time-sharing facilities, either because of a perceived lack of response from DP or because the proper tools do not exist on the mainframe, the IC may be able to provide users with the tools necessary to off-load some of their applications to a microcomputer.

- Enhance Data Security/Privacy Consciousness

This goal includes providing the users with the training and education as it relates to maintaining the security and privacy of the data stored electronically in their work areas. It also includes development and promulgation of procedures for backup, recovery, and physical security of the hardware/software in their areas. It may also include provision of password and encryption capabilities where necessary.

4.4 DEFINE ORGANIZATIONAL INTERFACES

The placement of the IC within ISC has been established. However, defining the IC's relationship with other organizations on the installation is part of the planning process. This step is placed before "decide service options" because the IC will need to define its relationships with other providers of user support (e.g. CPO, DP, Tactical ICs) before making final decisions about the services it provides. The IC will need to determine what resources can be shared, and which activities must be supported separately.

4.4.1 Organizational Location

The IC reports directly to the DOIM as specified in AR 5-3. This relationship is depicted in Figure 4-4. The IC provides a single point for user contact to obtain information systems support, and access, as appropriate, to USAISC resources (see Figure 4-5). The importance of the IC mission makes it imperative that the DOIM receive direct reports from the IC. The IC will draw upon expertise within the DOIM organization to satisfy many of the user's needs. The IC will also draw upon the ISC elements external to the DOIM to satisfy the remainder of the user's needs.

4.4.2 ISC Technical Support Structure

The IC does not stand alone but is part of the entire technical support structure, one that covers all aspects of the information systems architectures in planning. ISC currently has various support systems available or being implemented including:

- The Information Systems Engineering Command (ISEC) with the General Purpose Computer Support Center (GPCSC) and Small Computer Engineering Center (SCEC);
- O&M Commands, such as the 7th Signal Command with its USAISC-Pentagon and its Regional Data Centers;
- Information Systems Management activities, such as PM Super Computer, TACMIS, and other field offices.

Although all the resources listed above do not directly interface with the end user, the user will receive the benefit of their expertise through the local IC. Of special note are the GPCSC and SCEC. The GPCSC provides customer service and general information services for NDI systems, such as the INTEL 310 and IBM-PC. It will serve as the central point for distributing information to all DOIM/IC organizations. It will also be the focal point for all user problems and queries that cannot be resolved at lower organizational levels. A key function of the GPCSC is the certification program, under which commercial equipment and software will be evaluated to ensure that they work satisfactorily, are architecturally compliant, have adequate documentation, satisfy established standards, and can be supported. Another essential function of the GPCSC is a technical review of state-of-the-art commercial equipment and software before it is available to the customer base. Figure 4-6 depicts the three areas of support provided by the GPCSC, and lists contact numbers.

DIRECTORATE OF INFORMATION MANAGEMENT (DOIM)

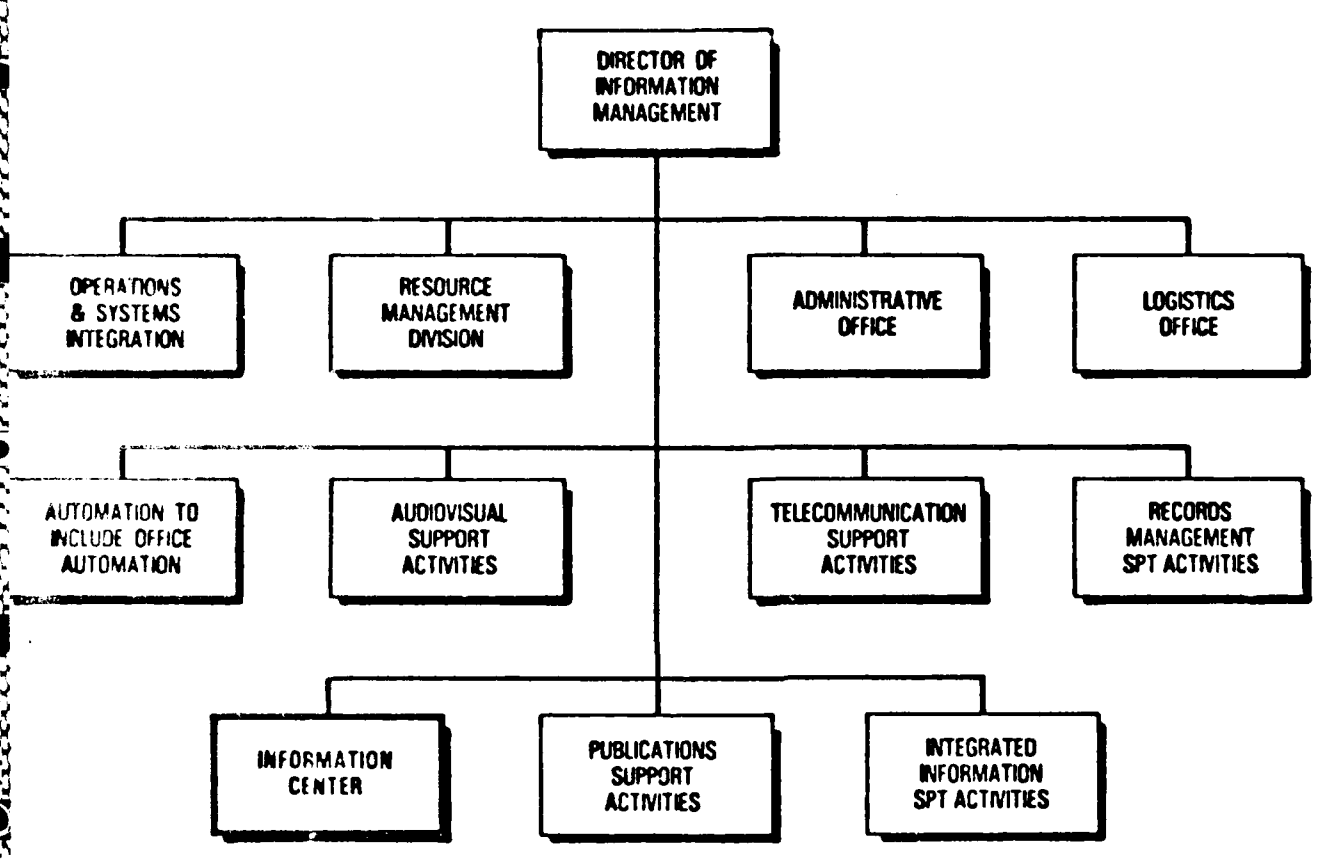

FIGURE 4-4

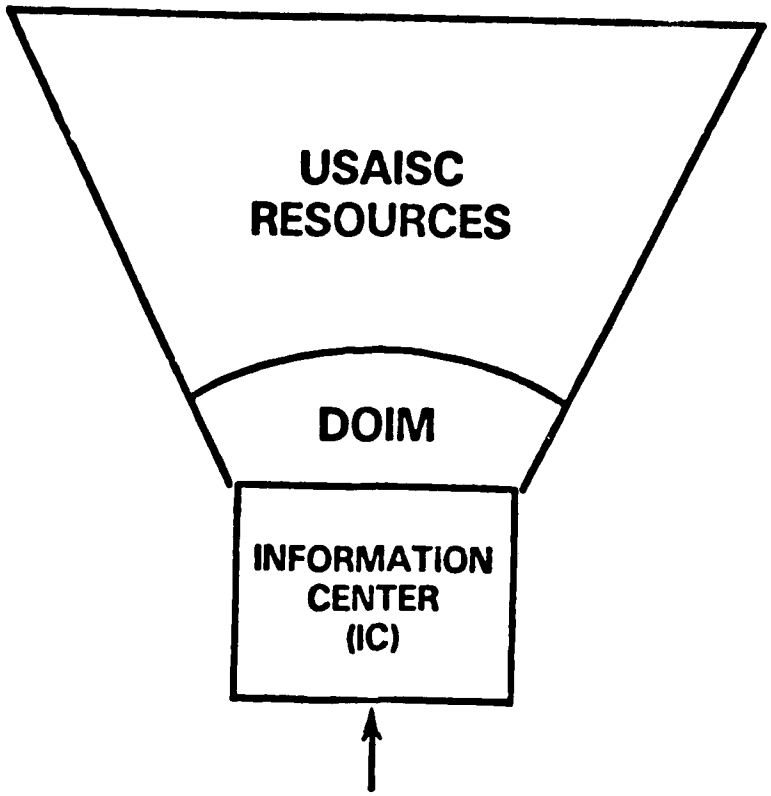

FIGURE 4-5

Support from the SCEC is requested through GPCSC. SCEC is an operating section of the Computer Systems Branch of ISEC. The mission of ISEC is to (1) maintain a laboratory facility for mini and microcomputer hardware and software evaluation, prototype development, and demonstration; and (2) provide consultative services to Army users and designers of small computer systems worldwide. SCEC serves as the highest level engineering activity within ISC responsible for all issues relating to micro/mini computer hardware, operating systems, and communications. It also serves as the highest level of hardware support available within the Army. The major functional areas of the SCEC are shown in Figure 4-7.

4.4.3 DOIM ICs and Tactical ICs

There may be several tactical units garrisoned at an installation which has an IC. The installation, or DOIM IC is usually responsible for providing additional support to these tactical units and the ICs formed for these units. The tactical IC operates as a focal point for both the tactical user chain and the technical support from ISC, while the tactical unit is in garrison. Resources are maximized when duplication of effort is avoided. To give an example of how this works, four of the six tactical units at Fort Hood have developed their own ICs. The tactical ICs focus heavily on training. The tactical units can also take advantage of the training offered by the DOIM IC, and make use of the help desk as well. Appendix E describes the Fort Hood tactical ICs in greater detail. Formal agreements, such as a Memorandum of Understanding will be useful in defining the degree of support to be provided, be developed and that the tactical IC include procedures for the tactical users to obtain services from the installation's IC.

ISEC – GENERAL PURPOSE COMPUTER SUPPORT CENTER (GPCSC)

CUSTOMER SERVICE

IC/USER ASSISTANCE

- Hotline/Helpline
- Technical Guidance
- Trouble Shooting
- Problem
  - Report Processing &
  - Trend Analysis
- Consultation
  - Needs Analysis
  - System Configuration
  - Software Selection
  - Application
  - Development Guidance
- Limited - Onsite
  - Assistance

AV 364-5100/5101/5035

GENERAL INFORMATION SERVICES

INFORMATION DISSEMINATION

- Micro Newsletter
- DOIM Information Packages
- Order Tracking
- Electronic Bulletin Board
- IC Planning Support
- User Groups
- General Information

AV 364-5102

TECHNOLOGY SUPPORT

TECHNOLOGY MANAGEMENT

- Configuration Management
- Army-wide Requirement
- Analysis
- Specifications
- Software Evaluation
- Software Standards
  - Preferred Software
  - Standard Software
- Product Information
- Product Fact Sheets
- Technical Library
- Future Technology

AV 221-6042

GPCSC 800 Phone Numbers:
Virginia Only – 800-468-7783
Nationwide – 800-626-3206

Provides Key Support to Installation Garrison Information Centers

FIGURE 4-6

ISEC – Small Computer Engineering Center (SCEC)

ENGINEERING

PERFORMS:
- Benchmark testing
- Integration support
- Development of multi-vendor communications interfaces

As pertains to U.S. Army micro/mini hardware, operating systems, and communications

CUSTOMER SUPPORT

Resolves hardware difficulties that cannot be resolved at lower organizational levels

CUSTOM SYSTEM DESIGN

Hardware engineering design support beyond local design capability

ALL REQUESTS OF SCEC CHANNELED THROUGH GPCSC

FIGURE 4-7

4.4.4 The IC and CPO

During the planning phase the IC should determine how it can work effectively with the CPO to provide training. There are several possibilities. The IC can develop courses offered through CPO. Alternately, the IC can teach microcomputer classes with its own staff, but have those classes filled by CPO. Or, the IC can develop classes to balance those offered by CPO. Training programs are an administrative burden to the IC, so it is to the advantage of the IC to make use of the expertise of the CPO whenever practical. Many new ICs focus heavily on training, which is offered in house. As they mature, the trend is to contract out training or to shift part of the responsibility to the organization's training office. This trend is also found in the Army. At Fort Ord, for example, microcomputer courses were developed and scheduled by the IC. Recently the IC turned over to CPO the function of scheduling users for the training. At Fort Hood, a written Memorandum of Understanding defines the responsibilities of the DOIM IC, CPO, and DAMO with regard to the training offered by the IC. A copy of this document is found in Appendix F.

4.4.5 The IC and Other DP Divisions

As set forth in the Army AR 5-series and discussed in Section 3.4.3, there may be considerable overlap between the IC and the other divisions of the DOIM directorate. The responsibilities of the IC and the other divisions must be clearly established prior to the implementation of the IC if there is to be a minimum of friction between the IC and the other DOIM components. The functions currently assigned to the DOIM divisions are summarized as follows:

Operations and Systems Integration

- Coordinate and supervise the provision of information services and products by all information operational activities;
- Recommend the allocation/reallocation of resources to operational activities for the accomplishment of the directorate mission;
- Supervise the execution of information system life cycle management;
- Plan and supervise the execution of information systems and services training;
- Plan and supervise the fielding and integration of new/upgraded information systems;
- Enforce compliance with existing information management policies, standards, and guidance;

Recommend and execute procedures and policies to accomplish more efficiently and effectively the directorate's operational mission with emphasis on the internal integration of information subfunctional activities.

Resource Management

- Interpret, develop, supplement, and promulgate information management policy;

- Establish and maintain garrison and installation information management standards, goals, and objectives;

- Develop, recommend, and monitor, as the functional proponent, all civilian and military, manpower, personnel and training programs related to the information mission area;

- Develop garrison, and coordinate and integrate installation information requirements;

- Develop and maintain garrison, and coordinate and integrate installation information models and architectures;

- Validate garrison, and provide comment concerning installation tenants' information requirements;

- Develop, recommend, and integrate garrison and installation technical information systems configurations;

- Develop, promulgate, implement, and enforce data management procedures and standards;

- Recommend information priorities;

- Develop and recommend garrison and installation information support force structure/organization;

- Develop and execute information management plans;

- Develop and recommend information fiscal and manpower plans, programs, and budgets;

- Execute the garrison information budget;

- Review, analyze, and evaluate all information resource management actions.

Logistics Support

- Develop and execute logistics plans in the areas of maintenance, supply, transportation, facilities, and personnel in support of garrison-provided information systems and facilities;

- Manage garrison, and monitor installation information asset inventories;

- Provide logistics input into all information management plans, programs, and budgets;

- Ensure adequate logistic support of all new/upgraded garrison provided information systems.

4.5 Define Services to be Provided

The purpose of the IC is to provide tools and techniques that will allow users to retrieve, analyze, manipulate, and present their data more effectively without being required to become computer experts. These tools and techniques are provided through a variety of services. Activities offered and supported by ICs in industry, the Army and other government agencies are summarized in the chart on the following pages.

4.5.1 Selecting Service Options

Several factors should be considered when selecting the number and breadth of the services offered by the IC. Typically, ICs are in the position of having somewhat static resources to meet constantly expanding needs. Generally, it is easier to set parameters on services offered, expanding them later, than to reduce service offerings. In spite of limited resources, ICs can be very ambitious in what they accomplish. The goal is to examine service offerings constantly to determine how to provide them more efficiently and effectively. For example, one Center used to schedule demonstrations twice a week. After a year, it decided to substitute quarterly product expositions. The result was that more users attended the first quarterly exposition than had attended all of the previous year's demos combined. In addition, the expo format gave the Center greater visibility. The activities listed for more than one service category in the foregoing chart indicate a possible multiplier factor where one activity can serve more than one purpose.

IC SERVICES

Category:				
Consultation	Training	General Support	Change Agent	Activity:
X				Applications development (micro and/or mainframe)
		X		Applications development library
		X		Applications problem resolution
	X		X	Classroom training
	X			Computer based instruction
X				Cost benefit analyses
		X		Custom programming
		X		Data administration
		X		Data dictionary management
X	X	X	X	Demonstrations (by staff or vendors)
		X		Disaster recovery
		X		Documentation
		X		Electronic mail support
		X		Equipment repair and maintenance
X	X	X	X	Expositions
	X		X	Film series
		X		Graphics production
		X		Group purchases
		X		Handicapped employee assistance

IC SERVICES (cont'd)

Category:				
Consultation	Training	General Support	Change Agent	Activity:
		X		Hardware and/or software acquisition
X				Hardware and/or software configuration
X	X	X	X	Hardware and/or software for hands-on evaluation
		X		Hardware and/or software for production support
		X		Hardware and/or software installation
X		X		Hardware and/or software justification assistance
		X		Hardware and/or software policy guidelines or standards
		X		Hardware and/or software problem diagnosis
		X		Hardware and/or software procurement processing
		X		Hardware and/or software procurement review or approval
X				Hardware and/or software specifications
		X	X	Hardware and/or software testing and evaluation
		X		Help line, help desk, or hot line
		X		Inventory management
		X		Linkage to data bases
		X		Loaner equipment
		X		Mainframe interface: monitor access to corporate data
		X		Mainframe interface: down load for manipulation on micro

IC SERVICES (cont'd)

Category:				
Consultation	Training	General Support	Change Agent	Activity:
X				Needs analysis and user requirements definition
	X	X	X	Newsletter
		X		Office automation planning
	X			One-on-one training
		X		On-going applications support
		X		Public domain software
X	X	X		Resource groups and persons
	X		X	Seminars
X				System design
X		X		Technical library
	X	X	X	Technology updates and briefings
		X		Time sharing terminals
X	X	X	X	User groups
X	X	X	X	User's guide
	X	X		Video tapes
X	X	X	X	Vendor display area
X	X	X	X	Vendor liaison

It is important for the IC to define and publicize clearly what services it will offer so users will know what they can and cannot expect. The following criteria, based on previous steps in the planning process, will measure the potential effectiveness of a service or activity:

- Mission, goals, and objectives established for the IC;
- Installation needs;
- Number and diversity of organizations supported.
- Available resources;
- Number of and diversity of products supported;
- Other available services;
- Future needs.

The success of the IC will be measured by its ability to meet stated objectives. Therefore, the selection of specific services must be guided by the mission, goals, and objectives established for the Center (see Section 4.3). Service offerings provide the mechanism which enables the IC to fulfill its objectives.

No two ICs offer exactly the same services because no two installations are alike. The needs of the users, and the number and diversity of organizations to be supported, help define the IC's services. The needs assessment discussed in Sections 4.1 and 4.2 will be useful when evaluating alternative service offerings.

The amount of human and financial resources available to support the IC will have an impact on the services it offers. For example, ideally an IC should follow-up with students individually after they have completed instructor-led training to: (1) evaluate training effectiveness, (2) reinforce concepts, and (3) encourage the user to continue to use the Center. However, a Center with a limited staff might decide to focus its training resources on classroom training. In this example, evaluation of the training could be accomplished with written forms completed in the classroom and the follow-up left to the initiative of the user.

The number of hardware and software products supported by an IC also have an impact on the services offered by the Center. Where the organization has standardized list of a limited number of products, the IC can provide in-depth technical assistance. Where there is a variety of hardware and software currently in use in the installation, the IC may not be able to provide the same comprehensive technical assistance. Then the IC must consider several alternatives. The Center may elect to offer technical support for all products at an introductory level, or it may decide to support some products in greater depth than others. If it is the goal of the Center to promote some level of standardization, the Center may encourage this standardization by supporting specific products with more services.

If the users at an installation already have access to some computer-related services, the IC should examine how it can avoid duplication of effort. The Center may elect not to offer a service if it is already available; it may decide to incorporate that service into the IC; or it may work cooperatively and offer the service jointly.

When deciding what service options to adopt, it is advantageous to try to predict what the need for the service will be and how it will change over a period of time. For example, if the Center guarantees a three-hour response time to requests for technical assistance, it must be prepared to meet that guarantee when there is a significant number of requests.

4.5.2 Service Categories

ICs offer a variety of services. For example, the IC may provide consulting, training, general support, and serve as an agent of change. Specific activities support each of these broad categories of service. Because the IC is an integrated approach to serving end users, the service areas often overlap. In addition, a single activity, such as a newsletter, may support more than one service category. This point is illustrated in the chart found in Section 4.5.

4.5.3 Consultation

Consultation has been defined as evaluating the user's needs and providing an approach to meet that need. For example, the user may want to know if his application is appropriate for a microcomputer and, if so, what products will best satisfy his requirements.

New computer users often lack the confidence and terminology to express their needs. Sometimes the user may have only a vague notion of what he wants to do. Usually, however, the user knows what he wants; he just cannot express it. Therefore, the consultant often spends considerable time helping the user identify his problem.

The IC might want to develop a check list of questions which the user and the consultant complete together or which the Center gives users in advance of their appointment with the consultant. This mechanism allows the user to begin clarification of his needs. Examples of ADP requirements/request formats used by Forts Monroe and Hood are found in Appendix F. The information gathered might include the following points:

- Brief description of the project;
- How the need is currently met;
- Purpose of automating the task and expected outcome;
- Potential impact of automating the task;

- Hardware and/or software currently available to the user;
- User's computer experience;
- User's criteria for selecting hardware and/or software (e.g., ease of learning, particular specifications);
- Priority of the project;
- Anticipated time frame;
- Amount of user's time devoted to development;
- How individual automation requirements fit into overall automation architecture.

The Center may also consider requiring an IC orientation or a basic computer literacy course before the user can make an appointment for consultation. Several Army ICs, including those at Forts Stewart and Hood, require that users take an introductory training course before they ever receive a PC.

In addition to identifying the application need, the IC may also assign the consultant the role of advising or assisting the end user in determining:

- System design:
- Hardware and software configuration;
- Cost/benefit analysis;
- Sources for help in development of the application (e.g., training options, user groups, resource persons).

After the user has clarified his need, the IC often offers several resources to enable the user to make a wise decision about which product to use and/or procure. These might include such things as the following:

- GPCSC evaluations;
- Hands-on trials;
- Product demonstrations conducted by IC staff;
- Product demonstrations provided by vendors at periodic fairs or expos, or scheduled individually;
- IC staff's expertise;
- Third-party evaluation in periodicals and reference guides;
- Vendor literature;
- Shopper's course.

One factor that may influence the user's choice is the availability of support for different products in the IC. Providing technical assistance and training for specific products may encourage his selection.

4.5.4 Training

Many ICs consider training their primary function. A goal of the IC is to enable users to become self-sufficient in satisfying many of their information needs. It is the responsibility of the Center to teach the skills the user will need.

There are a number of vehicles available for providing training to the end user:

- Instructor-led lectures;
- Instructor-led hands-on courses;
- One-on-one instruction;
- Commercially-prepared computer-based instruction (provided with software or purchased separately);
- Video-based instruction.

In addition, instructor-led courses can be developed in-house or bought from a company or consultant. While the IC may elect to use in-house staff to conduct training, classroom training is available from many other sources. Options include the following:

- Local base education and CPO (see also 4.4.4);
- Contractors;
- Colleges and universities;
- Government Services Administration (GSA);
- Office of Personnel Management (OPM);
- DoD Computer Institute;

The practice of developing and teaching courses in-house gives the IC greater control over quality. It also enables the training to incorporate Army-specific applications and terminology. These activities require tremendous staff resources, however. Consequently, the IC may decide to direct users to other sources for training, or to secure training for users from other sources.

If instructor-led training is offered, the Center may expand its training staff by asking expert users from functional areas to develop

and/or teach courses. The advantage of this approach is that an individual who uses a hardware or software product daily often will explore its possibilities to a greater extent than someone who learns the product for the purpose of teaching it. IC staff might be appointed to teach introductory level courses, while the expert user might be asked to teach advanced courses. Users frequently enjoy teaching occasionally but, because of work responsibilities, may be available only once a month or every other month. If many expert users teach for the IC, this arrangement may increase the time it takes to plan and schedule courses. In addition, the IC may need to provide these expert users with formal or informal instruction on classroom techniques and communication skills.

Another way to expand the training capabilities of the IC is to create a train-the-trainer program. This program trains existing trainers, expert users, and other interested personnel in classroom techniques and IC curriculum. These individuals then provide the training in their own functional areas. These training offerings may not be scheduled or monitored by the IC.

During the Planning Phase, the IC should evaluate the effectiveness of these approaches according to its specific situation. The Center may determine there is a large need for general computer literacy training and instructor-led training would be effective. It may also conclude that the need for training on a specific application package is small, so that a computer-based tutorial would meet the requirement for training in that area. Alternately, the Center might choose to use computer and video tutorials as a supplement to instructor-led training. If the Center determines that most of its users are computer literate, it may focus its resources on providing technical assistance and opt to provide all introductory training via video tapes.

Whenever possible, it is best to offer as many training alternatives as possible. The Colonel with a tight schedule may prefer individually-paced computer-based tutorials that can accommodate his schedule. Another individual might prefer group instruction where an instructor is always available to provide help.

The IC will want to balance the mix of its training offerings to meet the needs of both first-time users and experienced users. For example, the IC should not get so focused on the backlog of personnel waiting for introductory training that it fails to address the needs of more sophisticated users. Initially, the IC may need to concentrate on introductory training, but eventually that need may dissipate and be replaced by advanced training or new product training. Even from the beginning, there will be a demand for intermediate and advanced training. It is important to allow for this flexibility when building a training program. In planning the curriculum, the IC may want to consider having prerequisites for some courses to ensure a minimum common experience level for students in the class. The IC may elect to design an articulated training program with a suggested sequence of courses, as shown in Figure 4-8.

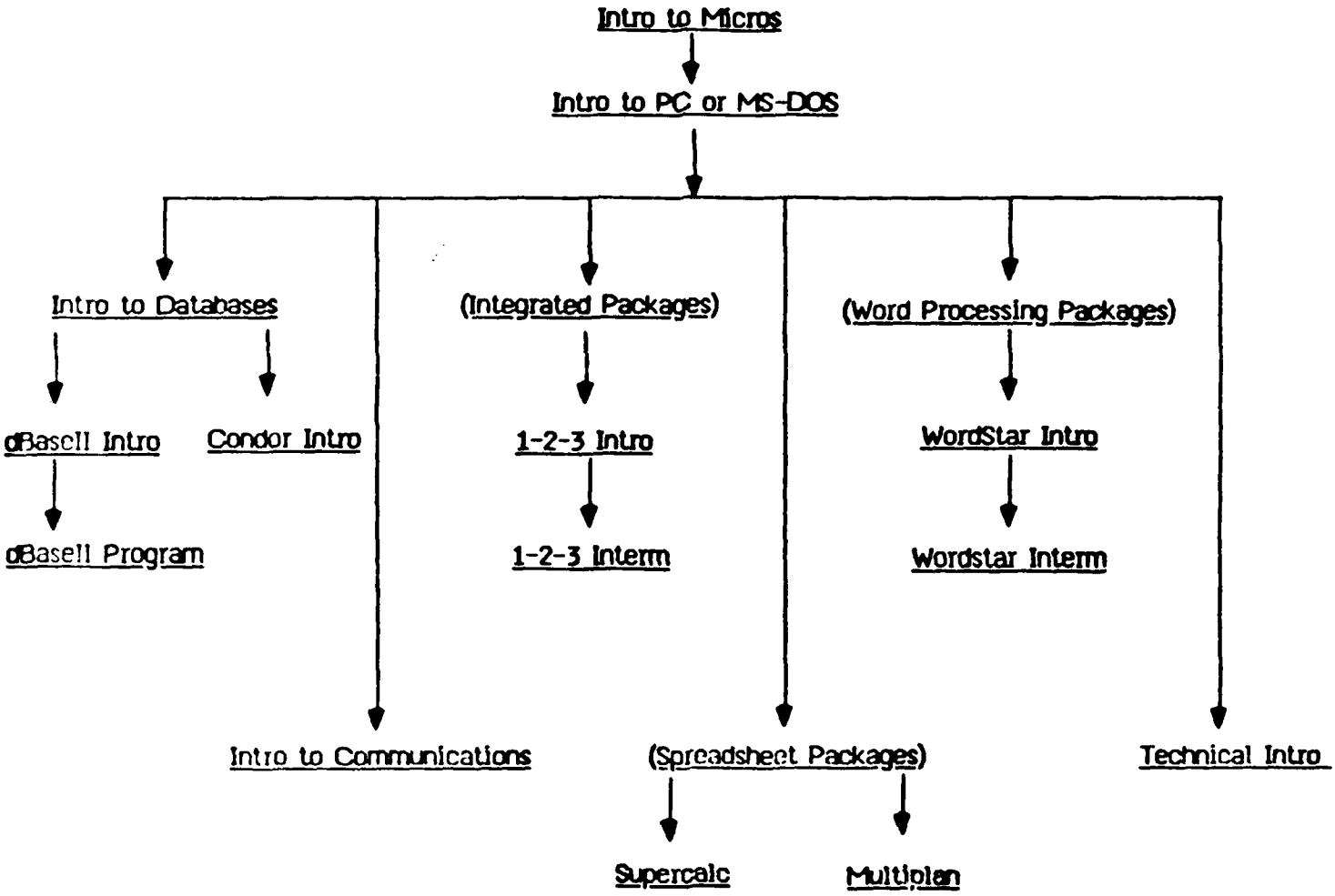
Intro to Micros
Intro to PC or MS-DOS
Intro to Databases
(Integrated Packages)
(Word Processing Packages)
dBaseII Intro
Condor Intro
1-2-3 Intro
WordStar Intro
dBaseII Program
1-2-3 Interm
Wordstar Interm
Intro to Communications
(Spreadsheet Packages)
Technical Intro
Supercalc
Multiplan

FIGURE 4-8

As part of the Planning Phase, the IC should establish the procedures it will use to schedule classes/students, to record attendance, and to evaluate courses. For example, the Center may wish to require an application-for-training form establishing training need and current level of proficiency. Or, the Center may make arrangements for these details to be handled by the CPO. The Center will also need to decide what hardware, software, and facilities it will need to support its training efforts. If the IC offers classroom training, it will have to determine how many students will be in the classes and, if the course has a hands on component, how many students will share a terminal or computer.

When the IC has determined its training offerings, policies, and procedures, it should provide this information to the users in a general user's handbook, a newsletter, or a separate document.

The IC should provide an introduction for users. This orientation might include the following:

- Relationship of the user to the IC;
- Introduction to the IC facilities;
- Introduction to the IC services;
- Levels and kinds of product support;
- IC operating procedures;
- How to use the IC's services.

The IC can provide this information in several ways:

- Tour of the IC;
- Short course;
- Segment incorporated into training offerings;
- Slide or video show.

While this introduction could take any of the above forms, pertinent information should be posted in writing and available in a user's handbook or brochure.

All computer training can be provided by one or more of the vehicles listed above. It should include courses such as:

Introduction to computer concepts;

- Introduction to microcomputers;
- Micro to-mainframe communications;

Introduction to databases;

- Introduction to programming concepts;
- Introduction to problem solving using computers;
- Introduction to spreadsheets;
- Introduction to word processors;
- Introduction to computer graphics;
- Introduction to micros for _____ (specific management level);
- Microcomputer system design and configuration;
- Introduction to micros for _____(specific functional areas);
- Introduction to artificial intelligence;
- Introduction to back-up and recovery procedures;
- Computer security;
- Hardware/software selection;
- Technical introduction to microcomputers;
- Introduction to ____(specific hardware/software product);
- Introduction to programming with _____(specific language or software product);
- Intermediate _____(specific hardware/software product);
- Advanced ____(specific hardware/software product).

For the first-time user, the IC should provide a general introduction to computer literacy. This course, designed for individuals with little or no previous knowledge of computers, would emphasize practical information. The major purpose of this training is to give users the opportunity to overcome any hesitation or resistance they have about computer technology. Topics might include:

- Definition of concepts and terminology;
- What computers can and cannot do;
- How computers work;
- Application demonstrations.

The IC may want to offer additional computer literacy courses, focusing on topics such as communications or databases; or these concepts may be included as part of training on specific applications packages.

The IC will also need to offer training in the use of specific hardware and software products, probably at the introductory and advanced levels. A hands-on component will enforce the concepts presented.

4.5.5 General Support

Under the general support activities, the IC provides assistance in the acquisition of hardware and software; a library; hotline support; problem resolution; and access to other ISC resources, such as GPCSC, SCEC, RDCs, BMA, etc.

Many ICs provide technical assistance to users. This on-going support is designed to provide help to users who are having problems with specific software application or hardware products. For example, a user may request assistance from the IC for a program he has written that is not working properly. The IC may then advise the user on how to de-bug the program and offer general guidance on programming techniques. Because a goal of the IC is to enable users to become self-sufficient, even these technical support activities might emphasize the techniques used to resolve the problem so that, on another occasion, the user may be able to solve the problem on his own. Technical support may include the following activities:

- Hardware/software problem diagnosis;
- Hardware/software problem resolution;
- Disaster recovery;
- Product installation.

The IC may provide technical support through one or more of the following mechanisms:

- One-on-one assistance;
- Help lines/hot lines or help desks;
- Reference materials;
- Resource groups/persons;
- User groups.

Technical support in the form of one-on-one assistance is often available over the telephone or on a walk-in basis. However, complex problems often require follow-up research, additional appointments, and sometimes "house calls." The IC may wish to describe all requests on forms in order to record IC usage. In addition, in ICs where a staff member is not always

available or on call to provide technical support, these forms record the requests for later resolution.

The difference in a hotline and a helpline is time. A hotline implies immediate problem resolution, whereas the helpline implies guidance and/or assistance that is not of an immediate nature. A help desk may describe a physical location where users can bring their technical problems, or it may imply the availability of assistance on a walk-in basis. Logs of requests for assistance are part of the IC's record of accomplishments, and also a way to track problems until they are fully resolve. Fort Monroe' automated help desk log is described in Appendix E. Sample logs from Forts Monroe, Hood, and Ord are found in Appendix F.

ICs may choose to require an appointment for any kind of technical assistance. This approach gives the staff greater ability to manage and control their schedule, but tends to detract from the benefit of the IC's providing rapid response to problems. The users may perceive an IC as inadequate if appointments are required for all requests for assistance or if there is too much delay in the IC's responding to their requests. The IC may want to establish a response-time goal so that the users know what to expect.

The IC may provide reference materials to substitute for (or supplement) one-on-one assistance. Product manuals and reference guides may be made available to users in the IC or, in some cases, be checked out of the technical library.

One way of expanding the technical support that an IC offers is to create resource groups or identify resource persons. The IC may, for example, sponsor a microcomputer users group within the organization. Alternatively, the IC may ask knowledgeable employees to serve as resource persons, to be called on when the IC receives questions in the resource person's area of expertise. Both resource groups and persons encourage networking within the organization and, as a result of the increased communication, duplication of effort or "reinventing the wheel" can sometimes be avoided.

User groups sponsored by the IC promote the sharing of information between different departments. In addition, they provide a way for the IC to maintain contact with the user community. Typical user group activities include demonstrations of new products and the sharing of problems and solutions. Several types of user groups may be beneficial, including:

- General groups (e.g., microcomputer users);
- Product specific groups;
- Generic function groups (e.g., financial planners).

In addition, these groups may be organized on the local installation or regional level.

User groups have been used successfully at White Sands Missile Range for more than twenty (20) years. Four (4) different groups currently meet: (1) Work Place Automation (WAS); (2) microcomputer; (3) Intel; and (4) scientific and engineering users. User groups meetings are scheduled monthly during duty hours. The first half of the hour-long meetings are devoted to a formal presentation by a subject matter expert. The last half of the meeting takes the form of a roundtable, where users share problems, solutions, and lessons learned. Meetings are advertised in the weekly installation newspaper, and on bulletin boards.

The Fort Stewart User Group is scheduled to meet on the third Wednesday of each month during regular working hours. The stated purpose of the meetings is to:

> "provide for information interchange, discussion of application developments, and any other items useful to the group as a whole."

All microcomputer users are invited to attend and anyone having an item of interest may have it placed on the agenda. Speakers are usually obtained for these meetings. The IC maintains a library of public domain software under the auspices of the user group. This software is available to users without charge. Users having an application that is of such general application that it may be utilized by other users in the group, are urged to submit the application for inclusion in the library. Forms and instructions for documentation and submission have been distributed to the user group members. Minutes of each meeting are distributed to all users, and may contain copies of other articles, notices, or announcements of general interest. Appendix F contains examples of user group related correspondence. Demonstrations, other than to the user groups, are scheduled on an ad-hoc or as requested basis.

Even though the installation may have an existing library which houses technical reference materials, ICs generally provide reference materials for the convenience of their users. A technical library within the IC provides a resource for both the user and the IC staff. Depending upon the information systems activities at a specific installation, technical libraries may range in size from a few periodicals on a shelf to a full-service library. Before the IC opens, decisions must be made about the contents and administrative procedures of the technical library. The library could include:

- Manuals, books, and periodicals;
- Hardware and software manuals;
- Commercial software products for hands-on trials;
- Public domain software;
- Applications developed by end users;
- Books on specific hardware and software products;
- Computer periodicals;

- Reference guides;

- Vendor literature;

- Article files.

The IC will need to determine during the planning phase if the library materials can be checked out and, if so, for how long. It may also decide that all the materials are to be used only for reference within the IC. Another option the IC may elect is to combine these strategies. Some materials, either because of their cost or popularity, may be designated for reference use within the IC, while others may be checked out. Because of software licensing restrictions and as a precaution against piracy, it is not generally considered wise to make software products available for lending (except for public domain software).

Many ICs are involved in some aspect of the procurement process. The IC may become involved in the process in several ways, including:

- Establishing guidelines and standards;

- Justification preparation;

- Procurement review and authorization;

- Negotiating purchases or requests for bids;

- Vendor liaison;

- Product distribution;

- Product repair and maintenance;

- COR/COTR responsibilities.

The Fort Stewart IC is involved in the procurement of micros through the following: (1) determining technical configuration with the user, specifically, will it work as the users anticipates, and does it fit the standard information architecture, (2) receiving the equipment and verifying working order, (3) issuing the hardware and software to the user, and (4) conducting a four-hour introductory course at the time of delivery. In addition, the IC maintains an automated report entitled the DOIM DPI Inventory/Hand Receipt Report. This report lists all equipment and software with the associated costs and serial numbers.

The IC at Fort Monroe has implemented procedures so that the user can describe his functional requirements, and can be automated without the need to understand ADP acquisition or equipment configuration. An outline for the basic functional requirements for automation support is found in Appendix F. The process includes the following steps: (1) define requirements; (2) IC recommends configuration; (3) submit documentation for approval; (4) submit request for procurement; (5) perform site survey; (6) equipment delivery; (7) inventory and hand receipt to user; and (8) equipment installation.

The sequence for procurement of ADP resources at Fort Hood is as follows: (1) user identified need; (2) IC analyst helps user identify requirements; (3) user completes capabilities requirements form (a copy is located in Appendix F); (4) requirement goes to the plans and management office for approval; (5) requirement goes to automation division chief who transfers it to a program analyst when it is mainframe related, or to the IC when it is PC related; (6) the IC configures the system; (7) the configuration, a project design plan, and a dollar estimate go to the user for review; (8) item ordered; (9) user receives training; and (10) IC provides installation assistance.

Although this is primarily the concern of the GPCSC and SCEC the IC may test and evaluate specific products for the installation, or individual users. In some cases the IC may decide to recommend a standard product; in others, the IC evaluations are made available to support the decision making of the users. The IC may also create general policy and guidelines regarding the selection of hardware and software products.

The IC may prepare or assist in the preparation of, a written justification and cost analysis to fund the purchase or lease arrangements. Some ICs require that they review and authorize all hardware and software procurements, or those above a certain threshold. Knowing what products are in use in the installation enables the DOIM to manage its resources better. Also, during the review process, the IC may have the opportunity to combine user requests and negotiate a lower price based on volume. Alternatively, the IC may serve as a liaison between the vendor and the user to ensure that the user's technical requirements are met with the best possible product at the best possible price.

As a part of its procurement activities, the IC may negotiate and maintain a central maintenance contract for equipment. While the cost savings of a large contract may be significant, the inventory control system required would also be significant. A more practical alternative may be to diagnose when a product requires repair and then to arrange for the repair.

Administrative support provided to the installation is described below. Possible areas of support include:

- Mainframe interface;
- Mainframe administration;
- Production support;
- Information management planning.

Although the IC mandate to-date is to support microcomputer end users, it may provide services to support end users' access to mainframes. The IC may provide, for example, the following services to its users:

- Access to Army corporate databases;
- Mainframe workstations;

- Time-sharing terminals;

- Downloaded data from the mainframe for manipulation on the micro;

- Links to remote computer services.

However, there are occasions when an IC will need to (or will choose to) support mainframe administration. The benefit of this involvement is the increase in end user awareness of the larger computing picture. Mainframe administration areas include:

- Data administration and management;

- Data dictionary management;

- Issuing log-on IDs and passwords;

- Allocating disk work space;

- Establishing profiles of data stored;

- Documenting update/backup/recovery procedures.

ICs may support the production activities of the installation in several ways. The IC may provide equipment which can be

- Scheduled in the IC on an on-going basis;

- Scheduled on a one-time basis for priority projects;

- Loaned in the event of equipment failure;

- Loaned temporarily.

To support the installation, the IC may house special graphics equipment which could not be justified for a single application but would be cost effective if shared. The same philosophy holds for other peripherals such as high-speed printers, letter-quality printers, hard disks, etc.

The IC may become involved in one or more aspects of information management planning, such as office automation efforts or electronic mail. The staff may contribute to these planning efforts, or the IC may be involved in supporting these efforts through training and dissemination of information.

4.5.6 Agent of Change

As an agent of change, the IC provides a means of introducing new technology and methods into the workplace. This ensures that state-of the-art technology is effectively introduced into the installation.

For change to take place there must be a sponsor, who legitimizes the change; the agent, who introduces and implements the change; and the target, who must change. New technology will be accepted much more readily if the target of change sees the benefits of the technology. Therefore, any introduction of new technology must include a convincing demonstration of how the technology will help the user.

It is the role of the IC to introduce new technology into the organization. The IC can provide current technology awareness through several mechanisms:

- Equipment display areas;
- Demonstrations in the IC;
- Presentations at staff meetings;
- A component of regularly scheduled courses;
- Special courses or technology updates;
- Newsletter articles;
- Information files;
- Making available the results of product testing and evaluation.

4.6 DEVELOP_STRATEGIC_PLAN

The strategic plan documents the planning process and describes the major events which must take place to accomplish the implementation and operation of the IC. Specifically, the plan includes:

- Background information;
- A summary of the data gathered and decisions made at each step of the planning process;
- A description of the implementation process and schedule;
- A strategy for operating the IC;
- Definition of how success will be measured;
- A projection of the future development of the IC.

The implementation section of the plan assigns responsibility for each of the activities, and sets a schedule of events. Typical events to be included in the schedule are identification and training of IC staff, identification of training classes and courseware for the classes, preparation of the IC facilities, procurement of equipment and materials, and advanced announcement of the opening of the facility.

The plan also describes how the Center will be operated to ensure that services are responsive to user needs. It identifies the mission, goals, and objectives established for the Center, and the methods that will be used to demonstrate the accomplishment of the same. The strategic plan also projects the future needs of the installation and the associated impact on the IC in such areas as staffing, service offerings, facility requirements, and center operations.

CHAPTER 5.0

IMPLEMENTATION PHASE

During the first, or planning phase the IC committee examined how the IC could best meet the needs of the organization. If that preparatory phase provides the foundation of the IC, the implementation phase provides the framework. This second phase focuses on the activities, policies, and procedures that will prepare the IC for on-going operations. The experiences of six Army installations (Fort Stewart, Georgia; Fort Monroe, Virginia; White Sands Missile Range, New Mexico; Rock Island Arsenal, Illinois; and Fort Ord, California) are presented.

The following activities need to be completed during the Implementation Phase:

- Select and train staff;
- Determine and acquire supported products;
- Facility design and site preparation;
- Establish operating policies and procedures;
- Implement and evaluate prototype IC.

5.1 SELECT AND TRAIN STAFF

After the planning phase is completed, the first priority is to determine how the IC will be staffed, and then to identify and assign personnel. Staffing early in the implementation phase allows for staff orientation and will provide the manpower necessary to accomplish the remaining activities of the second phase. It is not the intent of this guide to indicate where IC staff will be obtained, but rather to provide some suggestions regarding strategies for staffing the IC. Examples of how Army installations have staffed their Centers are also included. Staffing activities and considerations include:

- Factors impacting staff size;
- Staff qualifications;
- Government classification series;
- Sources of staffing;
- Staff responsibilities and roles;
- Staff training;
- Staff retention and morale.

5.1.1 FACTORS_IMPACTING_STAFF_SIZE

Unfortunately there is no set formula for determining the size of an IC staff. A number of factors impact staff size:

- Requirement to support micro activity;
- Other IMA technologies supported by the IC;
- Number and breadth of services offered;
- Size of the user community;
- Level of computer literacy of the user community;
- Number and diversity of user projects supported;
- Available resources.

Given the extent of services offered by the typical IC, experience in industry and in government agencies indicates five professional staff members, on the average, are needed. The range is from one to eighteen. The range of staff size in typical Army installations is from one to fourteen (see also Appendix E). When planning for staffing, some organizations develop ratios of IC staff to users. These formulae vary widely, from one staff member for every 10 users, to one staff member for every 150 users. While staff size may be related to the size of the user community, ultimately the needs of the installation dictate the staff size.

5.1.2 Staff_Responsibilities_and_Roles

Staffing is critical to the success of any organization. Like any service organization, the reputation of the IC will be created by the individuals who staff it. The IC's services should be determined before planning staffing requirements. The specific responsibilities and skills of the staff will be dictated by the services to be provided by the IC. The responsibilities of the IC staff are considerable, and may include:

- Assisting users in selecting correct products for their applications;
- Providing education in the form of training courses and seminars;
- Providing administrative support such as log-on IDs and passwords;
- Arranging for access to authorized data and providing extracts of that data as requested;
- Providing direct support in problem solving, documentation techniques, debugging, test and evaluation, security and privacy requirements, etc.;

- Interfacing with other DP divisions on behalf of the users;

- Assisting users in planning and justifying end-user computing resource usage and acquisition;

- Providing technical support in resolving problems related to the hardware or software, or system or product enhancements;

- Evaluating new technology to determine its applicability.

How staff functions are combined into positions may vary based upon the number of staff slated for the IC. The following functions should be covered:

- Center administration and management;

- Marketing;

- Hardware and software consulting;

- Training;

- Administrative support.

The organization chart of the Fort Ord IC (Figure 5-1) indicates how a staff organization has been structured at one installation. While each of these individuals would have specific areas of responsibility, some activities may overlap. At Fort Ord, for example, the six civilian staff members are all GS 334 series. Two are designated as PC trainers, two are responsible for on-line support, and two handle hardware. IC management, PROFS administration, and maintenance are tasked to specific individuals. Although training is the primary responsibility of the PC trainers, they also serve as consultants. Because he already knows the individual, a user may feel more comfortable asking a technical question of his instructor, than the officially designated IC consultant.

5.1.3 Staff Qualifications

Two basic qualifications are needed for all staff members of the IC: communication skills and technical skills. Solid technical skills corresponding with the needs of the installation are the backbone of an IC. However, for the IC to be successful, IC staff must be able to communicate technical concepts to non technical personnel. In fact, the second Cwrth

TYPICAL ORGANIZATIONAL CHART
Fort Hood Information Center

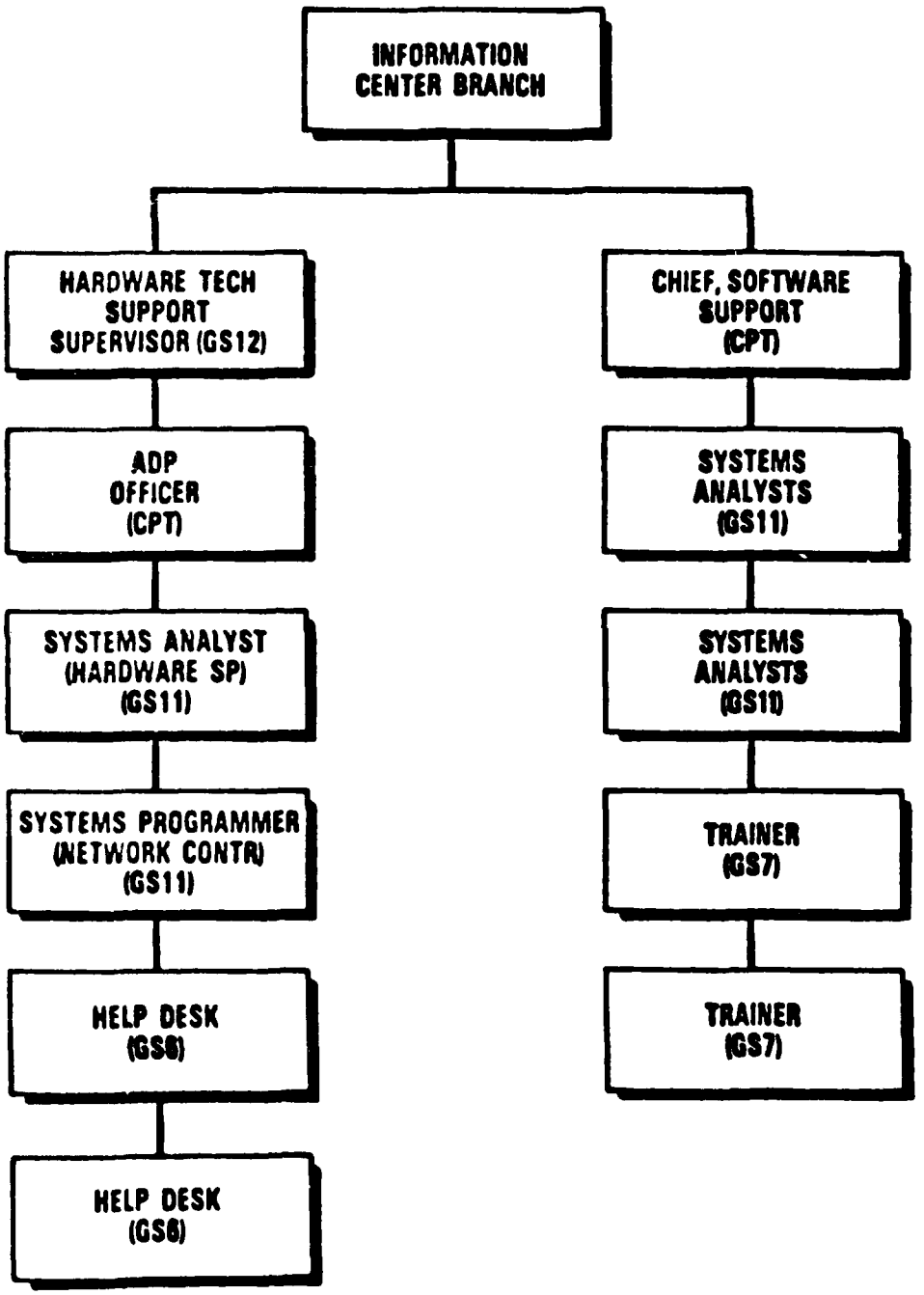

FIGURE 5-1

IC Survey reported that survey participants identified communication skills as the most important attribute for IC staff.

In addition, other qualifications for staff include:

- Interest in helping users;
- Independent work habits;
- Self-starter;
- Creative problem-solving skills;
- Flexibility;
- Business skills;
- Management skills;
- Sales skills;
- Training skills;
- Organizational ability;
- Team player;
- Patience and persistence;
- Interest in keeping current with technological developments.

5.1.4 Government Classification Series

Typically, government and Army ICs include some of the following classification series:

- *Computer Specialist (334);
- *Computer Assistant (335);
- Computer Scientist (1512);
- *Management Analyst (344);
- Communications Specialist (390);
- Program Assistant (301);
- Technical Information Specialist (1412);
- Education and Training Technician (1702);

- Education and Vocational Training (1710);

- *Training Instruction (1712);

- Clerk/Typist (322).

Sample position descriptions, provided by Army installations, for the series marked with an * are reprinted in Appendix F.

5.1.5 Sources for Staffing

The IC may be staffed by installation personnel, or a combination of installation and contract personnel. ICs at installations with a large military presence often include military personnel on their staff. Three of the case study sites, described in Appendix E, have military personnel. The manager at one of these sites, Fort Hood, is a military officer. Figure 5-1 shows how military and civilian personnel are integrated into the Fort Hood IC organizational structure. The IC at Ford Ord uses military personnel to man the help desk.

If the IC decides to use in-house staffing, it can structure the staff in several ways. The IC may want to establish a core staff and to supplement the staff through short-term details from other functional areas on a rotating basis. This structure has two advantages:

- The number of permanent staff needed for the IC may be smaller;

- Functional members return to their respective areas as "super users" who can provide on-going support to their units and possibly reduce some of the demands for services placed upon the IC. These individuals would be the first source of assistance for users within their functional areas.

There are some inherent dangers in the concept of the "super user," both with respect to the initial identification of the individual and with respect to his future availability. For example, the person initially selected for rotation to the IC may be the one who can best be spared (e.g., all the "good" people cannot be spared). Upon his return from rotation, the "super user" may become so involved with helping other micro computer users that this activity has a negative impact on his job performance.

Staffing some services of the IC with contract personnel may provide needed flexibility. For example, when the IC opens it may be difficult to predict the exact level of staffing required. Under a contract arrangement, provisions can be made to add or delete staff as needed. In addition, contractor staffing eliminates the need for the installation to establish personnel slots for the IC, and unsatisfactory individuals can be terminated more easily. The help desk at Fort Monroe is staffed by contract personnel; Rock Island Arsenal uses contract personnel to provide training.

5.1.6 Staff Training

The training needs of the staff will vary depending upon their backgrounds and the products and services supported by the IC. Because of the service orientation of the IC, all staff will need to enhance their communication skills. In addition, staff orientation and training should include:

- Installation mission;
- IC concept;
- IC's mission, goal, and objectives;
- Hardware and software products supported by the IC;
- Standard operating policies and procedures.

Because the approach of the IC will be unfamiliar to most staff, new employee orientation should include a session on the IC concept. Special emphasis should be placed on the fact that the IC and its staff exist to serve the user. The IC staff must know (or find) answers to users problems but, for the IC to be successful, the staff must also be perceived as approachable, helpful, and able to explain answers in non-technical terms. The salesperson's adage, "The customer is always right," applies to the IC as well.

Before support on hardware and software products can be provided to installation users, the IC staff must be trained to use the products. The depth of expertise required for each product will vary depending on how widely it is used in the installation. If the IC plans to promote products that are not currently in use, the staff must also have the expertise required to convince users that the product delivers what it promises. Various activities will enable the staff member to become proficient with the product. He can become familiar with the overall scope of the product through a class, demonstration, or self-study. Installing the product will broaden his technical perspective. Writing start-up instructions for the end-user will force the staff member to look at the product from the user's perspective. To become thoroughly familiar with a software product, he should also work with several typical applications to broaden his knowledge of the package. Time and responding to user inquiries will further develop staff expertise.

In addition to developing product expertise, this training format has another advantage. When the staff member develops start-up instructions for the end-user, he is also producing an important product for the IC. These instructions may be gathered into hardware and software procedural notebooks which will provide a valuable reference for both staff and users.

Product specialists may be identified based upon previous experience and individual interest although, ultimately, the IC will need to provide support for all the products in use at the installation. If the IC uses the concept of levels of support presented in Section 5.3.3 the same matrix (Figure 5-4) can also serve as a training plan. Those supporting a product

on an introductory level may not require any formal training, while those providing advanced support will probably need classroom training and significant hands-on experience.

Maintaining a high level of technical expertise when technological advances occur continually is of utmost concern to the IC. Consequently, staff training and development plans must be established. IC staff, in order to stay current with the latest technical developments, may require substantial training. Seminars, conferences, and product demonstrations will contribute to maintenance of proficiency. In addition, the availability of the resources of a Technical Library, described in Section 4.5.5, is desirable. Assigning personnel to be responsible for specific products and journals will help to develop product specialists and will spread the responsibility of keeping current with the technology among the staff.

It is also essential that staff be thoroughly familiar with the IC's Internal Standards and Procedures Manual. This will enable them to represent the IC and its capabilities accurately, to ensure that required records are kept, and to help guarantee adherence to policies and procedures. If the user is handled in an organized manner, made possible by standards and procedures, he will feel comfortable and confident in the IC. In addition, he will know what to expect on subsequent visits to the IC.

5.1.7 Staff Retention and Morale

The selection and development of a good staff is not enough to guarantee high performance on an on-going basis. The IC must provide the means for the staff to maintain professional competence and must develop meaningful career options for them. An upward mobility program developed by the MILPERCEN IC is reprinted in Appendix F. Training, both formal training, and experience provided on the job is another way to sustain staff. The working environment of the Center is stressful because of constant user demands. Therefore, periodically the IC manager will need to ask the staff to focus on the big picture.

5.2 THE IC FACILITY

The tasks associated with establishing and furnishing the physical facility are placed early in the implementation phase because of the lead time required to procure products, and perform any necessary site renovations. During the implementation phase, the IC should identify, order, and install furniture, hardware, software, or other items dictated by its service offerings, and submit any work orders need to prepare the site for the IC.

5.2.1 Determine and Acquire Supported Products

Potential products to be supported by the IC will be identified during the planning phase based on: installation standards, the user needs survey, and the services offered by the IC. The IC can compile a wish list, and determine priorities for making purchases. Some items, multiple copies for classroom use, for example, may be needed immediately. Others, such as a projection unit, would be ideal, would not be considered essential. A generic shopping list could include:

- Copies of standard software packages;
- Computer-based and/or video based tutorials;
- Standard hardware and peripherals;
- Terminals;
- VCR;
- Graphics hardware and software;
- Projection system (overhead, slide, or large screen);
- Reference guides, subscriptions, and other library materials;
- Surge protectors;
- Related supplies (printer paper, plotter pins, diskettes).

The IC may acquire hardware and software products through purchase, vendor loan, installation loan, or surplus. Vendors are often eager to lend products to the IC. However, the IC should have a formal agreement indicating a specificied loan period, and a procedure for equitable treatment of all vendors. ICs also borrow equipment from the user community, for short periods of time. For example, Fort Ord borrowed six computers from users to furnish its training facility, until it was able to procure its own equipment. Surplus equipment can be used in the Center, even if it is outdated. In its demo area, the Fort Stewart maintains most of the configurations still in use in the installation. This allows the staff to replicate a users situation, when they seek to resolve his problem.

5.2.2 Facility Design and Site Preparation

Planning the physical facility of the IC includes three key considerations: location, space allocation, and necessary renovations.

Convenience is the most important requirement for selecting the location of an IC. If the IC is located near the user's work site, it will be easier for him to take advantage of the IC's services. A survey of Army microcomputer users indicates that users go to the most convenient source when seeking microcomputer assistance. The IC should be located on a route

that receives heavy foot traffic. Such a highly visible location markets the IC to potential users who may miss other marketing efforts: it invites the attention of the curious.

The space must be large enough to accommodate all of the services the IC will offer. Although much of the space can be multi-functional, ideally the space should also be divided into areas appropriate for the various services, i.e., a large area for group training or demonstrations, a more private space for one-on-one training or consultations. Staff work areas and storage space must also be identified. The use of modular furniture to divide the space promotes flexibility, which may be important as the services of the IC evolve with the needs of the installation.

Once the space has been identified and divided into functional areas, substantial effort will likely be required to provide a conducive work environment and to satisfy the physical requirements of the technology. Because new users may be hesitant and resistant to computer technology and because of the physical stress associated with using computer screens and keyboards, every possible effort must be made to give the IC an inviting and comfortable work environment. Human factors to consider and plan for include non-glare lighting (adjustable if possible), privacy at the work station, and easily adjustable chair, keyboard, and screen heights.

In addition to consideration for the user when the IC facility is being planned, requirements of the technology must be incorporated into the design, such as the following:

- Supplemental electricity;
- Air-conditioning;
- Static electricity control;
- Physical security;
- Disaster altering;
- Ducts or other provisions for routing cables.

Supplemental electricity and air-conditioning must often be provided in order to make an existing space usable. A separate power supply may be needed to avoid voltage deviations and to assure adequate supply. In addition, raceways for the power supply provide an ideal solution for the need to supply current to numerous pieces of equipment and yet maintain a neat appearance. Careful consideration must be given to the placement of supplemental air conditioning units because these units are often extremely noisy. Because static electricity can destroy computer data, space planning should incorporate options for reducing static. Possible solutions are:

A humidifier (connected with the air conditioning system);

Anti-static mats and sprays;

Plants.

Provisions for the protection of the cables used to interconnect the components of computer systems must be made. Options include either over head cable trays (with or without a dropped false ceiling) or raised deck ing to permit cable installation below the flooring.

While the space is being renovated to accommodate the equipment, it is the ideal time to make any physical changes required to ensure the security of the equipment. These changes may include dead bolt locks, alarm sys tems, window locks, and heavy screens and/or bars.

Figure 5-2 illustrates the layout of the support center facilities at the Nuclear Regulatory Commission. Classroom areas are located in a sep arate facility.

5.3 ESTABLISH OPERATING POLICIES AND OPERATING PROCEDURES

Operating policies and procedures fall into two categories: those that define the internal operation of the IC, and those that define its external operation. Internal procedures may include file naming conventions used by the staff, for example. External procedures may define how long a user can keep a periodical he has checked out of the library.

5.3.1 Internal Operating Policies and Procedures

While a published external policies and procedures, or user's guide, should contain a statement of the IC's mission and objectives, the internal manual should include what will be done, how it will be done, and by whom. It should be written as a procedural guide from the viewpoint of the IC staff; for example, while the User's manual may explain that a potential user must obtain a log-on ID from the IC, the internal guide should tell procedurally just how this can be accomplished. Formal written procedures help ensure the smooth administration of the IC so that administrative difficulties do not interfere with the service provided to the user. The standards and procedures should include:

- Individual responsibilities of each staff member;
- Procedures for determining user services required and criteria for selection of applications to be supported;
- Procedures for establishing training courses, scheduling courses, and evaluating training results;
- Procedures for providing direct assistance such as manning the help desk, informal and formal consulting, etc.;
- Procedures for monitoring and enforcing data security and privacy regulations;

TYPICAL FACILITY LAY-OUT

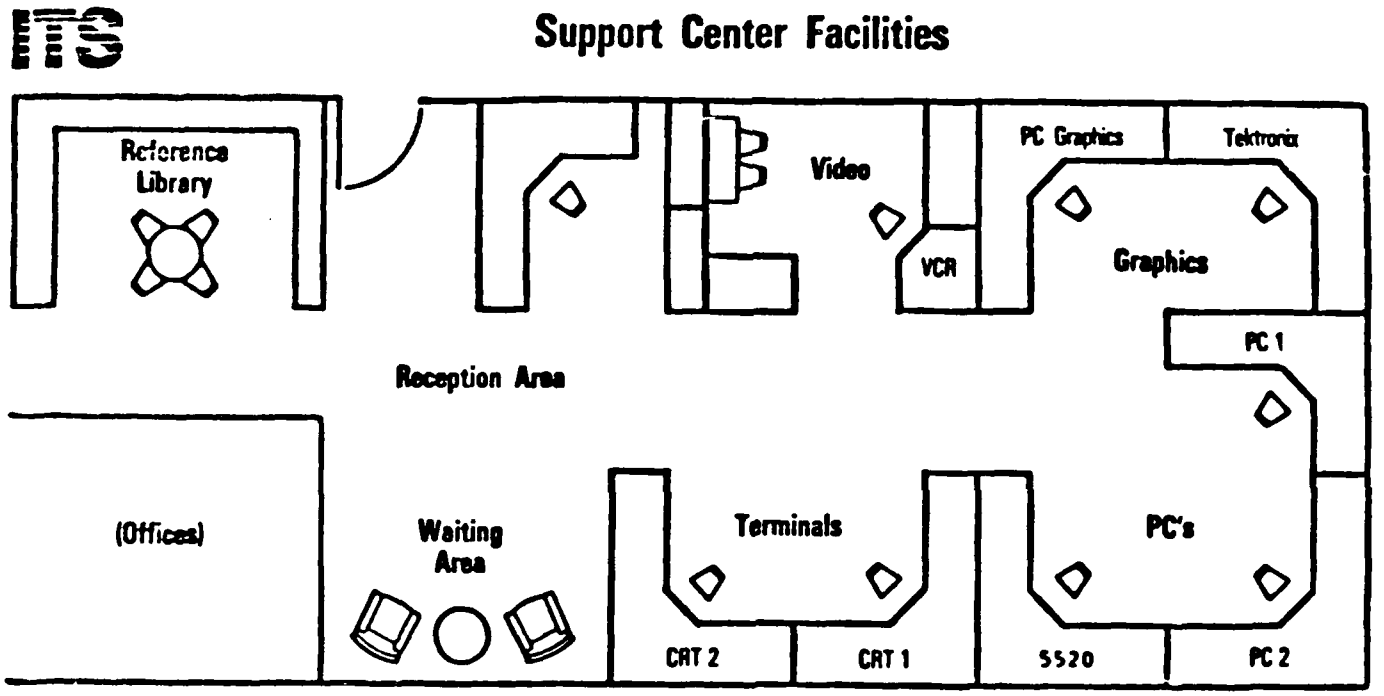

FIGURE 5-2

- Procedures for monitoring and enforcing microcomputer hardware and software security policies;

- Procedures for providing technical support in testing new products, investigating hardware and software problems, etc.;

- Procedures for obtaining Data Processing assistance for data extracts, database backup and restores, and distribution of outputs;

- Procedures for resource planning, control, and justification;

- Procedures for marketing of the IC;

- Administrative procedures such as log-on ID assignment, job accounting, internal reports, ordering hardware, software, supplies, manuals, etc.;

- Procedures for measuring IC effectiveness;

- Procedures for internal staff career advancement and training;

- Procedures for contacting external activities such as the GPCSC for assistance.

5.3.2 External Operating Policies and Procedures

It is important to establish and document the IC's policies and procedures so that users expectations are accurate. A user's manual is an ideal way to make this information available to the user. Relevant sections should be posted in the Center. The following polices and procedures should be defined:

- Hours of operation;

- Hardware/software/library loan;

- Security;

- Levels of support;

- Admittance/sign-in;

- Scheduling center services;

- IC responsibilities;

- User responsibilities.

Most ICs are open normal installation working hours. Fort Monroe recently extended its help line support into the evening hours. Some centers use answering machines to record calls for assistance after hours. An IC with a small staff will not be able to operate for as many hours as the Center that can stagger staffing.

If the IC loans hardware, software, or library materials to the users, the Center will need to specify a loan period. Most commerically available software comes with copy right restrictions. To protect itself legally, the IC should require the user to sign a statement indicating that he will not copy the software.

Software, documentation, and other IC assets are relatively portable. The IC may want to post specific policies restricting the kinds of materials that can be brought into the Center (e.g. briefcases, diskettes) to provide security to its assets. The IC may also ask the walk-in user to follow a sign-in procedure requiring positive identification and statement of intent.

The IC should consider establishing a list of supported products, and to describe the level of support it provides for each product. This concept was also described in Section 5.1.6. Under this concept standard products, in wide use would be supported more fully than specialized applications. Levels may be defined as described in Figure 5-3.

LEVEL	TYPE OF SUPPORT PROVIDED
Advanced	Fully supported: all questions will be answered; IC will maintain copies of hardware and software for demos and hands-on trials; new users may be referred to a (new) later version that is compatible with this (earlier) version. (For example, dBASE III has been replaced by dBASE III +. Current users of dBASE III receive advanced support, but new users will be strongly encouraged to implement their application using dBASE III +.)
Intermediate	IC staff may have some expertise, but no in-house training is available; no on-site hardware or software is available for demos or hands-on trials.
Introductory	IC has literature from various sources and contact points outside the organization that may be contacted for assistance.

Figure 5-3

A sample support structure showing staff responsibilities at different support levels is shown in Figure 5-4.

Operating policies and procedures describe the services offered by the IC and how the individual can use those services. Are training forms (e.g. a 1556) required? Appointments may be required for some kinds of consultations, particularly those involving application needs analysis, for example.

LEVELS OF SUPPORT - Sample Support Structure

XYZ SOFTWARE PRODUCT

Highest Level of Support Offered: **Introductory** **Intermediate** **Advanced**

(circle one)

Staff	Introductory	Intermediate	Advanced
ADP Manager	●	●	
Computer Specialist	●	●	●
Technical Information Specialist	●		
Training Specialist	●	●	●
Clerk / Typist	●		

FIGURE 5-4

Operating policies also describe the responsibilities of the IC and of the user in satisfying the users' information needs. The IC's responsibilities are delineated in Section 5.1.2. The users, in order to achieve maximum benefit from the IC, also have responsibilities:

- Attend seminars and education courses, ensuring that any prerequisites for the courses have been met;
- Plan and justify resources used, with IC assistance as requested;
- Code own applications (depending on the installation's policy);
- Document own applications;
- Adhere to IC programming/coding guidelines as promulgated in the User's Manual;
- Research appropriate manuals to resolve own debugging or informational questions before calling for help;
- Have appropriate documentation ready for the IC consultant when he/she responds to a request for assistance;
- Be committed to principles of privacy, security, and suitability for usage of data;
- Understand the problem from its business perspective;
- Identify the data needed;
- Develop a business case and a statement of benefits;
- Adhere to the policy prohibiting software piracy.

The table of contents for Fort Monroe's Customer Support Division SOPs is found in Appendix E.

5.4. IMPLEMENT_AND_EVALUATE_PROTOTYPE_IC

Whenever it is feasible, a prototype project will greatly benefit the IC. The prototype should be selected with care, because the project needs to be successful. For example, the IC may select a branch or division which has a keen interest in implementing end-user computing. This project gives the staff the opportunity to test how its procedures work. As the internal standards and procedures are implemented, they should be critically evaluated to determine if any changes need to be made before the IC opens to the entire installation. The prototype project also gives the IC the opportunity to demonstrate its capabilities to the user community. In addition, the prototype provides the IC with a success story to use in its initial marketing efforts.

CHAPTER 6.0

OPERATIONAL PHASE

The planning and implementation phases of the IC are designed to provide a solid base for the actual operation of the IC. Although substantial time and effort necessarily go into the preparation phases of the Center, it is the operational phase of the IC that will be most visible to the installation. Maintaining a service facility such as an IC requires the Center manager and staff to be responsive both to the day-to-day needs of the users, and to the evolving needs of the organization. Successful operation of an IC demands a significant commitment to the entire process of planning, implementing, and ultimately operating the Center on an on-going basis.

6.1 MARKETING

The opening of an IC often creates a high level of interest that can be capitalized on. Planning for an opening day or event requires a concentrated marketing effort. The focus of this marketing is to create awareness of the IC. Special announcements to the media, strategically placed leaflets, table tents in the NCO Club, and posters are possible marketing mechanisms. Making presentations at staff meetings and special interest groups is an excellent way to promote awareness and increase interest.

In addition to special announcements about the opening, the IC may also prepare an IC brochure, the first newsletter, and a slide or video show to be used both in the initial promotion and after the IC has opened. Information included in communications about the IC could cover:

- IC concept overview;
- IC mission and goals;
- Introduction of IC personnel;
- IC services;
- Hardware and software products supported;
- Key policies and procedures.

6.1.1 Official Opening

Special opening-day events provide a highly visible focus for the start of the IC. Speakers, representing ISC and others, will connote the significance of the IC. Scheduled or on-going demonstrations of hardware

and software products, and opportunities for hands-on experience are popular. Some IC openings are so successful that similar open houses are repeated annually.

At an open house, when interest is high, is an ideal time to begin to build information about the actual IC users. A mailing list database can be started. Special application interests can be recorded for follow up later.

6.1.2 Recording Marketing Efforts

From the first, the IC will want to track its marketing efforts to provide information for future marketing. The IC may want to compile a notebook with examples of the marketing materials it produces and copies of articles published about the IC. In addition, photographing the opening and other special events will provide visuals for later marketing efforts and become part of the marketing record.

6.1.3 On-going Marketing Plan

Developing a marketing strategy is an important aspect of the on-going operations of the IC. Successful marketing will help to ensure the IC's own success. As soon as the IC's mission and services have been established, marketing efforts can begin. From that point on marketing is an on-going effort made by the IC to communicate with the user community. The need for marketing never disappears.

Marketing is integral to on-going operations because marketing, if successful, will generate users for the IC. The IC must plan how it will meet the demands produced by marketing.

The purpose for marketing an operating IC are to explain the IC concept, to describe the services offered and how to use them, to elicit support, to invite use, and ultimately to assure usage. Initially, the IC will want to communicate its mission and services to the user. This need never disappears but, after the IC is established, additional marketing efforts will be focused on reaching new audiences and providing information about new offerings or special events.

6.1.4 Targeted Marketing

While the message communicated may vary, the key to every successful marketing campaign is to target the message to a specific audience. This means that the IC must know generally who its audience is and have data about that audience. Information gathered in the User Needs Survey described in Section 4.2 will be valuable here as well. To targeted specific groups, the audience can be divided in several ways:

- Management level;
- Functional area;
- Department;
- Level of experience (new or experienced user).

Marketing to management is one of the most crucial of all marketing efforts for the IC. To ensure its continued operation, and to gain additional resources when needed, the IC must have the support of those who make the decisions controlling its resources. The IC must make sure that the installation management (1) has accurate perception of the IC's role and purpose, and (2) is aware of the accomplishment of the IC. Executive management may lend its support to the IC initially for a diversity of reasons. Some hope the IC will cut down on the mushrooming DP development backlog. Others view it as a way of modifying the users' expectations of an uncaring and unresponsive DP organization. User management may become disenchanted because its expectations have been raised to too high a level and it finds that the IC is not the cure-all for all its informational needs. Often ICs provide a valuable service, much appreciated by the users. However, if the IC does not make this information known, management may never know. Some possible ways to market to installation management audience are:

- Acknowledge and address concerns;
- Demonstrations of products of special interest to managers (electronic mail, calendars, etc.);
- Providing evaluations of actual performances versus planned accomplishments;
- Frequent updates, with information on use;
- Success stories.

6.1.5 Marketing Tools

Ultimately, the best public relations an IC can have is the satisfaction of its users. The concept of the IC as a service provider must be

incorporated into all of the dealings between IC staff and end-users. In addition, a wide range of media can be used to market the IC, including:

- Demonstrations;
- Open houses;
- Tours;
- Slides or video shows;
- Base newspaper articles;
- IC newsletter;
- Management briefings;
- Seminars;
- Expos;
- Electronic and traditional bulletin boards;
- User groups;
- Testimonials from satisfied users.

The IC at Fort Hood printed the card shown below for its users. Such a card can be put in the phone card file, or taped to micro or terminal for quick reference.

(Space for card)

A copy of MILPERCEN's IC brochure is reproduced in Appendix F.

A monthly, bi-monthly, or quarterly IC newsletter for IC users will help to establish an on-going partnership with the user community. Such a publication can be distributed through internal mail, via electronic mail, traditional or electronic bulletin board, or as a supplement to the base newsletter. The newsletter could include:

- Listing of IC personnel and phone numbers;
- New IC services;
- Training schedules and course descriptions;
- Seminar schedules;
- New products available in the IC;
- Application development activities in user areas;
- Product tips and suggestions;
- User group activities;
- User information exchange (e.g., "have" and "want" lists);
- Upcoming special events;
- Case studies (ways computers are being used);
- New technological developments.

6.2 OPERATING A RESPONSIVE IC

The IC could provide a set of the most efficient services possible but, unless the services provided match the end-users' needs, they will not be useful to the users. The IC manager can use the following techniques to ensure the services the IC offers best meet the users needs:

- Understanding the user population;
- Creating a network of local support experts, i.e. functional experts in each user area to provide input to the changing needs in their respective areas;
- Conducting regular market research studies;
- Building "feedback loops" into service offerings;
- Doing capacity planning for facilities and staff;
- Placing the support where it is needed;
- Watching for the "user drop-out".

To be successful, the IC must translate its objectives directly into high quality service for its end-user clients. No organization can survive unless its clients are satisfied and the successful ICs maintain a high level of user satisfaction. User satisfaction is usually measured in terms of speed, quality, and usefulness of the services provided. The speed and usefulness of responses to users' problems, either with software or hardware, are of prime importance. User dissatisfaction with the IC's responses may be characterized by a decline in requests for services or a decrease in the user's computer activity profile. Either case calls for immediate corrective action in order to maintain the desired service levels.

In order to develop and implement strategies for continued operational success, the IC manager must maintain awareness of command strategies and objectives; current technology trends; and end user computing needs. The IC must remain responsive to the needs of its installation. The IC should periodically compare the use of its services with the Center's stated mission. Use of services are a partial indication of need, and can provide valuable information to the manager on how he should use his limited resources.

6.3 MEASURING THE EFFECTIVENESS OF THE IC

The IC manager must continually monitor the operations of the IC and should be ever on the alert to capture success stories for use in continued justification of the IC, make on going justification a standard business practice, and start to collect appropriate statistics from day one. Some methods for collecting statistics relate to IC usage:

- Log visitor log (see Figure 6-1);
- Help desk log (see Appendix E);
- Course evaluation forms (see Appendix E);
- Capabilities statements prepared.

In addition to the usage statistics that are easily collected, the IC must continually strive to obtain feedback from the users in terms of productivity improvements achieved and savings obtained. All of the figures and success stories must be presented in the frame of reference of how the IC has contributed to the overall missions and objectives of the organization. Productivity improvement, cost savings, and cost avoidance statistics include:

Reduced outside time-sharing costs;

- Improved user productivity (new tasks accomplished not previously possible, or man hours saved over previous methods of doing tasks);
- Headcount increase avoidance;

SAMPLE LOG SHEET

Date: _____

PURPOSE OF VISIT
1. Equipment Malfunction
2. Initial Configuration Asst.
3. Software Problem
4. General IC Info.
5. Training/Demo Request
6. Help in locating/accessing data
7. HW/SW Upgrade Decision Asst.
8. Vendors
9. Other (describe)

IC VISITOR LOG SHEET

NAME	PHONE	DEPARTMENT	IN	OUT	CALL	VISIT	PURPOSE OF VISIT

Table 6-1

- Reduced overtime or compensatory time;

- Reduced travel and communications costs;

- Reduced application development costs;

- Reduced program maintenance costs;

- Fewer DP-produced reports.

These figures should be presented to management at regular intervals. These presentations provide an opportunity to increase management's understanding of the IC's role and responsibilities in supporting the end user community and to educate top management about end-user computing and its tools. This education is necessary to provide an awareness of what person al computers can do, as well as an appreciation of how these tools can be used as decision support aids. It also serves to create an awareness on the part of top management that learning to use personal computers requires time and a commitment, just as with any other tool.

6.4 OBSTACLES TO GROWTH

The manager should be concerned with identifying these obstacles and developing contingency plans to reduce the impact of them. The results of user and executive interviews and staff surveys will help to point out possible problem areas. Major obstacles encountered could include:

- Insufficient budget;

- Inadequate staff;

- Mismatched support programs;

- Inaccessible data;

- User reluctance;

- Poor DP support.

6.5 EVALUATION OF IC SERVICES AND OPERATION

The IC must continually re-evaluate its internal administrative and operational procedures in order to improve the quality of service provided to the users. As new services/products are introduced, the current methods of supplying support to these services/products may not be effective. In addition, the IC must continually evaluate the utility of services offered and products supported. Procedures must be established for setting up a transitional period when introducing a new service/product or dropping an old one. The length of the transitional period can vary, depending upon the degree of difficulty expected to be encountered in converting existing applications to the new product.

6.6 FUTURE NEEDS

Today's environment is characterized by an ever widening gap between DP support resources, the application development process, and the IC's ability to provide on-going support for an increasing number of users. The IC should anticipate the need to support communications and network systems and new easy-to-use tools, and help the users to find sophisticated ways to accomplish what they want. In addition to the ever increasing number of new users who must receive initial training in end-user computing, the IC must be prepared to offer advanced training for the older or more mature users who are ready to utilize more sophisticated ways to increase their productivity. The IC must be alert to recognize the changing needs of the user community, through analysis of feedback, and be ready to respond to these new needs when the users are ready for more advanced techniques. It must be prepared to follow up on leads from users about new applications of old technology or new technology offerings, demonstrating to the users that the IC cares and is responsive to their needs and desires.

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APPENDIX A

TERMS AND ABBREVIATIONS

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APPENDIX A

A.1 TERMS, ABBREVIATIONS, AND ACRONYMS USED IN THIS GUIDE

This part of this Appendix contains definitions of terms and abbreviations used in this IC Planning and Implementation Guide.

Application	A set of procedures, manual or automated, which supports the performance of a business process
Audiovisual	The use of sound and visual material or processes to communicate information (Audiovisual functions include, but are not limited to, motion picture, photography, sound and video recordings, audiovisual production, graphic art, and audiovisual libraries.)
Automation	Systems which use automated electronic equipment and related information technologies to support information procedures and processes in either tactical or non-tactical environments (The technologies include, but are not limited to, micrographics, word processing, copiers, communications, printing, and general purpose data processing.)
Baseline configuration	A baseline configuration consists of a current inventory of information resources and a pictorial description of how that inventory satisfies the organization's information model
Binary	The numerical base by which a computer operates - base 2 (Since a computer's electrical circuitry understands only the ON and OFF states, it operates on strings of ON and OFF signals, which represent the numbers 1 and 0, respectively. Thus the number twenty-nine is represented as 11101 in a binary code.)
CBT	Computer-based training
Corporate data (Command data)	Data which is used by more than one department and usually is stored in a centrally controlled file system (This data usually requires that stringent verification/validation/auditing procedures be utilized.

Data	A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or automatic means
Information architecture	A framework that depicts the relationships of all elements involved in information management within an organization (Within the Army, it is used to provide a blueprint for developing specific plans and actions in the planning, control, and management of all Army information.)
Information management	Activities which are required to plan, organize, analyze, manage, and control information resources effectively
Information mission area	The resource requirements and associated information management activities employed in the development, use, integration, and management of information
Information management plan (IMP	A plan projecting information processing requirements and capabilities used to obtain program and resource allocation approval
Information model	A pictorial representation of the processes, information classes, information flow, and elements of an organization and all relationships among these factors
Network	In data communication, a configuration in which two or more terminal installations are connected
Node	In a data network, a point where one or more functional units interconnect data transmission lines
Objective configuration	A means of depicting an organization's optimum information and resource capabilities needed to support the mission (This configuration is not limited by resource availability and is adjusted to reflect emerging technologies.)
Office automation	Systems that use automated equipment and technologies to support information activities typical of an office environment (The technologies include, but are not limited to, micrographics, text editing, copying, communications, printing, and general purpose data processing.)

Peripherals	In a data processing system, any equipment distinct from the central processing unit that may provide the system with outside communication or additional facilities
Private data	Data that is used within, one installation,one department, or one individual is and stored in locally controlled files
Records management	Includes activities concerned with the management of correspondence; reports; forms: directives and publications; mail; distribution; maintenance, use, and disposition of recorded information; declassification of recorded information; and the implementation of responsibilities under the Freedom of Information and Privacy Act
STAMMIS	Standard Army Multicommand Management Information Systems (centrally designed, centrally maintained and modified management information system that is operated by one or more MACOM)
TIMAP	The Information Mission Area Program (the Army's program to manage, integrate, and approve requirements in the three Army information areas: Tactical/Strategic, Joint/National, and Sustaining Base)

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A.2 GENERAL COMPUTING TERMS AND ABBREVIATIONS

This part of this Appendix contains definitions of general terms and abbreviations used in the computing industry.

Alphanumeric	Pertains to a character set which contains letters, digits, and usually other characters such as punctuation marks
Analog	Pertains to representation by means of continuously variable physical quantities such as voltage or sound level (Contrast with digital.)
Artificial intelligence	A hardware/software system that is designed to emulate human responses of thought processes (Still in its infancy, current AI research includes the area of "expert systems," which are programs that can approximate the methodology of humans who are experts in a particular area of study.)
ASCII	American National Standard Code for Information Exchange - the standard code, using a coded character set consisting of 7-bit coded characters (8-bits including parity check), used for information interchange among data processing systems, data communications systems, and associated equipment
Asynchronous	Events occurring without regular time relationships, unexpected or unpredictable with respect to the execution of a program
Band	In data communication, the frequency spectrum between two defined limits
Bandwidth	The difference, expressed in hertz, between the two limiting frequencies of a band
Baseband	In the process of modulation, the frequency band occupied by the aggregate of the transmitted signals when first used to modulate a carrier
BASIC	Beginners All-purpose Symbolic Instruction - a high order computer programming language

BAUD	In asynchronous transmission, the unit of modulation rate corresponding to one unit interval per second
Bisynchronous	Binary synchronous transmission - data transmission in which synchronization of characters is controlled by using timing signals generated at the sending and receiving stations
Bit	Term for a binary element; in the binary numbering system, either of the digits 0 or 1; the basic unit of information in computers
Bootstrap	A program that starts a computer (Generally, "booting" clears the machine memory, loads the operating system, and sets up the machine to begin work on a particular application.)
BPS	Bits-per-second - In serial transmission, the instantaneous bit speed with which a device or channel transmits a character
Buffer	An area of storage that is temporarily reserved for use in performing an input/output operation into which data is read or from which it is written; synonymous with I/O area
Bus	One or more conductors used for transmitting signals or power
Byte	A binary character string operated upon as a unit and usually shorter than a computer word
Channel	In data transmission, a means of one-way transmission (Contrast with circuit with two-way transmission.)
Chip	A minute piece of semiconductive material used in the manufacture of electrical components (An integrated circuit is on a piece of semiconductive material.)
Coaxial cable	A cable consisting of one conductor (usually a small copper tube or wire) within and insulated from another conductor of large diameter (usually copper tubing or copper braid)

COBOL	Common Business Oriented Language - an "English-like," high-order, computer programming language
Compiler	A translation program that converts high-level instructions into binary code
Concatenate	To link together, as in joining two word processing files
CP/M-86	Control Program/Microcomputer-86 - a sixteen-bit architecture operating system based upon the Intel 8086 chip, under license by Digital Research
Cursor	A movable spot of light on the screen of a display device, usually indicating where the next character will be entered
CVT	Constant Voltage Transformer - a device which maintains voltage to a power line in a constant manner
Daisy wheel	An interchangeable element electronic impact printer, offering faster print speeds than a selectric typewriter printer and producing a fully formed character
Data base	A collection of data organized to suit a particular application (The term applies to both personal and private information banks as well as to commercial data services such as Compuserve.)
Data communications	The transmission, reception and validation of data
DOS	Disk Operating System - a disk resident programming system that provides operating system capabilities
Dot matrix	A method of display character generation in which each character is formed by a grid or matrix pattern of dots
Download	To call for, and receive, a file from another computer
DSDD	Dual-Sided/Dual-Density - the capability to record on both sides of a diskette in dual density format

Field	A category of information in a data file, or a prompt on a data entry screen (Fields in an employee file might include name, address, and social security number.)
Full Descenders	The ability of a visual display unit to project the full character of a lower case alphanumeric letter, especially those having descending "tails" such as the lower case letters "p", "q", "y", etc.
Hacker	A person "addicted" to computers; one familiar with programming and/or the technical aspects of hardware (It is more frequently used as a descriptive rather than a derogatory term, except when used in connection with the recent spate of teenagers who have penetrated various computer systems and networks.)
Handshaking	The initial exchange between two data communications systems prior to data transmission (The first unit sends a signal, then waits for an appropriate signal in response. The specific sequence in this exchange is called a protocol.)
Hard copy	A paper printout (It is "hard" in the sense that it can actually be held, as opposed to a screen display.)
Hertz	A unit of frequency equivalent to one cycle per second
HOL	High Order Language - a programming language in which one statement, when processed by an interpreter or compiler, generates several machine language instructions (Contrast with assembly or machine language.)
Interface	A connection between devices, systems, and use that allows power or data transmission (A keyboard is a user-to-machine interface.)
K	When referring to storage capacity, equals two to the tenth power, or 1024 (bytes) in decimal notation
LAN	Local Area Network - pertaining to a localized data communications system

Language translator	A general term for any assembler, compiler, or other routine that accepts statements in one language and produces equivalent statements in another language
Macro	A command that allows a few keystrokes to reproduce a longer string of characters
Megahertz(MHz)	One million hertz
Memory	One of the essential components of a computer's central processing unit; the area where information and programs are actively stored and processed [Memory contains both ROM (permanent Read Only Memory) and RAM (Random Access Memory, a temporary memory, the contents of which can be modified at will).]
Multiplexor(mux)	A device capable of interleaving the events of two or more activities or capable of distributing the events of an interleaved sequence to the respective activities
Operating system	Software that controls the execution of computer programs and that may provide scheduling, debugging, input/output control, accounting, storage assignment, data management, and other related services
Parallel data	Pertaining to the simultaneous occurrence of transfer transmission of bits constituting an entity of data over a data circuit
Parity	Used as a method for error checking in binary code; refers to an even or odd sum of bits (A special bit, called the parity bit, is used to give each byte even or odd parity. If the bits in a given byte in an even-parity system add up to an odd number, an error has occurred in that byte.)
Pixel	A contraction of the words "picture element"; the smallest dot that can be displayed on a system's viewing screen
Protocol	A set of rules governing communication between two systems
Random Access Memory (RAM)	In microcomputers, generally refers to Read/Write (RAM) memory which can be altered under program control

Register	A storage device having a specified storage capacity such as a bit, byte, or computer word and usually intended for a special purpose
Read Only Memory (ROM)	Non-volatile memory which contains commonly used programs (ROM cannot normally be altered.)
RS232	An industry standard male to female hardware interface pin connection
Sectors	The smallest addressable space on a microcomputer's disk media; the evenly-divided sub-sections on a track which hold the stored data
Serial data transfer	The sequential transmission of the bits constituting a data entity over a data circuit
SSDD	Single-Sided/Dual-Density - the capability of recording only one side of a diskette in dual-density mode
Synchronous data transmission	Synchronous communication occurring when two computers communicate using a common timing signal that tells both when the next bit of data is being sent
System memory	Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent execution or processing (Contrast to auxiliary storage: disk, tape, etc.)
Topology	In data communication networks, a schematic arrangement of the links and nodes of the network
Tracks	(Refers to disk storage media) Concentric circles on a disk; the smallest physical division of data storage on a floppy disk
Tree-structured directories	A hierarchical arrangement of files on a mass-storage device (Tree-structured directories allow directories to be stored like files inside other directories. The "root directory", or main directory, contains files and, optionally, subdirectories. Subdirectories, in turn, can contain additional files and directories.)
UPS	Uninterruptable Power Source - that power source which is normally on a separate circuit/line

Utility	A software program that performs a routine task (Such tasks might include sorting, editing, printing, or recovering lost data from a disk.)

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APPENDIX B

REFERENCES

B.1 ARMY AND DoD PUBLICATIONS

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APPENDIX B

This Appendix provides lists of regulations and standards that may apply to the planning, implementation, and operation of an Information Center.

B.1 ARMY AND DoD PUBLICATIONS

ARMY REGULATIONS

AR 5-1	Army Management Philosophy
AR 10-5	Department of the Army Organizations and Functions
AR 11-39	Army Command and Control System Program
AR 15-21	Army Command and Control Council
AR 18-3	Automatic Data Processing Management Information System
AR 18-7	Automatic Data Processing Management Review Guide
AR 18-7	Data Processing Activity Management, Procedures, and Standards
AR 18-12 Series	Standard Data Elements and Codes
AR 18-22	Army Inventory of Data Systems (AIDS)
AR 25-1	Information Management, The Information Mission Area Program (TIMAP)
AR 25-5	Army Information Management Program
AR 27-60	Patents, Inventions, and Copyrights
AR 34-4	Battlefield Automated Systems Interoperability Management
AR 190-13	The Army Physical Security Program

AR 310-3	Preparation, Coordination, and Approval of Department of the Army Publications
AR 310-34	Equipment Authorization and Utilization Policies and Criteria and Common Tables of Allowances
AR 310-49	The Army Authorization Documents System (TAADS)
AR 335-Series	Management Information Control
AR 340-16	Safeguarding "FOR OFFICIAL USE ONLY" Information
AR 340-17	Release of Information Records from Army Files
AR 340-18	The Army Functional Files System
AR 340-21	The Army Privacy Program
AR 380-5	Department of the Army Information Security Program
AR 380-20	Restricted Areas
AR 380-35	DA Communications Intelligence Security Regulation
AR 380-40	Policy for Safeguards and Controlling COMSEC
AR 380-380	Automation Security
AR 525-1	The Department of the Army Command and Control System
AR 530-1	Operations Security
AR 530-2	Communications Security
AR 530-4	Control of Compromising Emanations
AR 710-2	Supply Policy Below the Wholesale Level

TECHNICAL BULLETINS

TB 18-13	Army Information and Data Systems: DPI Site Selection/Preparation
TB 18-21	Management Information Systems ADP Staffing Estimators and Staffing Estimation Techniques for Army TDA Units
TB 18 22	Management Information Systems Using Test Data Generators to Reduce Software Development Costs
TB 18 100	Life Cycle Management
TB 18-101	Planning Programming and Evaluation System
TB 18-102	Quality Program
TB 18-102-1	Verification and Validation Handbook
TB 18-103	Army Automation, Software Design and Development
TB 103-1	Software Design and Development-Networking
TB 104	Testing of Computer Software Systems
TB 106	Deployment, Operations and Termination of Automated Data Systems
TB 18-109	Economic Analysis
TB 18-110	Configuration Management
TB 18-111	Army Automation, Technical Documentation
TB 18 112	Training Management for ADP Systems
TB 18-114	Computer Performance Measurement and Evaluation
TB 18-115	Army Information Processing Standards (AIPS) Program

TB 18 115 1	Army Information Processing Standards (AIPS) Program Standards	ADP
TB 18 115 2	Army Information Processing Standards (AIPS) Program Elements and Codes	Data
TB 18-122	Planning Guide for Software Conversion	
TB 380-41 (Series)	Procedures for Safeguarding Accounting, and Supply Controlling COMSEC Information	

DA PAMPHLETS

DA PAM 18 1-1 Army Inventory of Data Systems

DA PAM 18-2 User's Guide for Identifying Automatic Data Processing Equipment (ADPE) Requirements

DA PAM 18-4 Data Processing Installation Review/Evaluation Checklist

DA PAM 18 7 Data Processing Installation Management Guide

DA PAM 18-7 Automatic Data Processing Management Review Guide

DA PAM 18 8 A Software Resource Macro-estimating Procedure

DA PAM 18-12 Management Information Systems BASOPS Handbook for Commanders

DA PAN 25-1 Army Architecture

DA PAM 710 2-1 Using Unit Supply System (Manual Procedures)

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MILITARY STANDARDS/DoD STANDARDS

MILS 52779A	Software Quality Assurance
MIL-STD-1815A	ADA Programming Language
MIL-HDBK-334	Evaluation of a Contractor's Software Quality Assurance Program
DOD-STD-7935	DoD Standard, Automated Data Systems (ADS) Documentation

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B.2 FEDERAL INFORMATION PROCESSING STANDARDS (FIPS) PUBLICATIONS

FIPS PUB 0	General Description of the Federal Information Processing Standards Register
FIPS PUB 1-1	Code for Information Interchange
FIPS PUB 2	Perforated Tape Code for Information Interchange
FIPS PUB 3-1	Recorded Magnetic Tape for Information Interchange
FIPS PUB 7	Implementation of the Code for Information Interchange and Related Media Standards
FIPS PUB 11-2	Dictionary for Information Processing
FIPS PUB 15	Subsets of the Standard Code for Information Interchange
FIPS PUB 16-1	Bit Sequencing of the Code for Information Interchange in Serial-by-bit Data Transmission
FIPS PUB 17-1	Character Structure and Character Parity Sense for Serial-by-bit Data Communication in the Code for Information Interchange
FIPS PUB 18-1	Character Structure and Character Parity Sense for Parallel-by-bit Data Communication in the Code for Information Interchange
FIPS PUB 20	Guidelines for Describing Information Interchange Formats
FIPS PUB 21-1	COBOL
FIPS PUB 22-1	Synchronous Signaling Rated Between Data Terminal and Data Communication Equipment
FIPS PUB 24	Flowchart Symbols and Their Usage in Information Interchange
FIPS PUB 28	Standardization of Data Elements and Representations

FIPS PUB 29	Interpretation Procedures for Federal Standard COBOL
FIPS PUB 30	Software Summary for Describing Computer Programs and Automated Data Systems
FIPS PUB 31	Guidelines for Automatic Data Processing Physical Security and Risk Management
FIPS PUB 38	Guidelines for Documentation of Computer Programs and Automated Data Systems
FIPS PUB 39	Glossary for Computer Systems Security
FIPS PUB 41	Computer Security Guidelines for Implementing the Privacy Act of 1974
FIPS PUB 45	Guide for the Development, Implementation, and Maintenance of Standards for the Representation of Computer Processed Data Elements
FIPS PUB 46	Data Encryption Standard
FIPS PUB 49	Guidelines on Computer References Measurement: an Introduction
FIPS PUB 56	Guidelines for Managing Multi-vendor Plug-compatible ADP Systems
FIPS PUB 57	Guidelines for the Measurement of Interactive Computer Service Response Time and Turnaround Time
FIPS PUB 60-2	I/O Channel Interface
FIPS PUB 61	Channel Level Power Control Interface
FIPS PUB 64	Guidelines for Documentation of Computer Programs and Automated Data Systems for the Initiation Phase
FIPS PUB 65	Guidelines for Automatic Data Processing Risk Analysis

FIPS PUB 67	Guidelines for Selection of Data Entry Equipment
FIPS PUB 68	Minimal BASIC
FIPS PUB 69	FORTRAN
FIPS PUB 72	Guidelines for Measurement of Remote Batch Computer Service
FIPS PUB 73	Guidelines for Security of Computer Applications
FIPS PUB 74	Guidelines for Implementing and Using the NBS Data Encryption Standard
FIPS PUB 76	Guidelines for Planning and Using a Data Dictionary System
FIPS PUB 77	Guidelines for Planning and Management of Database Applications
FIPS PUB 83	Guidelines on User Authentication Techniques for Computer Network Access Control
FIPS PUB 86	Additional Controls for Use with American National Standard Code for Information Interchange
FIPS PUB 87	Guidelines for ADP Contingency Planning
FIPS PUB 94	Guidelines on Electrical Power for ADP Installation
FIPS PUB 96	Guidelines for Developing and Implementing a Charging System for Data Processing Services
FIPS PUB 99	A Framework for the Evaluation and Comparison of Software Development Tools
FIPS PUB 101	Guidelines for Life Cycle Validation, Verification, and Listing of Computer Software
FIPS PUB 102	Guidelines for Computer Security Certification and Accreditation

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APPENDIX C

IC BIBLIOGRAPHY

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IC BIBLIOGRAPHY

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APPENDIX D

SAMPLE USER SURVEY QUESTIONNAIRE

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SAMPLE USER SURVEY QUESTIONNAIRE

This survey is being conducted for the purpose of identifying the computer support requirements of users as they relate to the establishment of an Information Center (IC). The IC will provide the knowledge and skills needed to user microcomputer technology productively. The expected benefits include improved productivity, improved quality of work products, improved responsiveness to department needs, and reduced waiting time for information required in management decision making. Your feedback is important so that the IC can effectively plan how to meet your requirements.

Please answer the following questions. If there are multiple reports/queries that apply to the questions, please use additional sheets to answer each part of the question for each report/query. Thank you.

1. Please describe your job (you and your subordinates) as it is today.

   _____

   _____

   _____

   _____

   _____

   _____

   _____

2. As a part of your job, do you generate any reports or answer one-time inquiries?_____

   a. How long does it take you (percentage of your time)?

      _____

   b. How many people does it take?

      _____

   c. How much overtime does this require (if any)?

      _____

   d. What is the frequency of the reports?

      _____

3. Where do you get your data for your reports and inquiries?

---

a. Is the data hard to get?

---

b. Is the data accurate?

---

c. Is the data extracted from existing reports?

---

d. Is the data in usable form (relevant)?

---

e. Is the data timely?

---

f. Of the data that you get, what percentage do you use?

---

g. Do you have any special cut-off requirement?

---

h. Do you have to clean up the data?

---

i. What is the distribution of your reports/queries?

---

4. Do you keep/store/maintain any data for your own use?

---

a. Where do you keep this data?

---

b. What media is this data on?

---

c. Who else uses your data?

---

5. After you deliver a report, how often are you asked to change, expand, and/or modify that report?

---

a. How much effort does it take?

---

b. How much time does it take?

---

6. In generating your reports, what kind of special functions or skills do you require? Check all that apply.

a. Mathematics (statistical analysis)

b. Graphics

c. Text processing

d. Electronic mail

e. Subscription data services

f. Modeling

g. Education (computer - assisted - instructions)

7. With regard to the next 12 months, are there any planned changes to your mission, work processes, reporting requirements, auditing, etc.? If so, describe.

8. What DP services are you using today?

9. Do you use any outside time-sharing services?

10. Are you satisfied with the current availability of data?

11. If you could have the opportunity to change things, what would you do differently?

12. Do you have any additional information that you feel would be of interest to our study team?

13. Please complete the chart on the next page, indicating the support currently needed by you and your subordinates. Check both those needs that are immediate, and those you anticipate in the next year.

• Support Needed by Users

	NEEDS OF CLERICAL USERS		NEEDS OF PROFESSIONAL USERS		NEEDS OF MANAGEMENT USERS	
	Immediate	Future	Immediate	Future	Immediate	Future
Software:						
Artificial Intelligence						
Communications: Electronic Mail						
Communications: Local Area Networks						
Communications: PC – Mainframe Links						
Data Bases						
Electronic Calendars						
File Management						
Graphics						
Integrated Packages						
Instructional						
Languages						
Modeling						
Project Management						
Spreadsheets						
Statistics						
Word Processing						
Capabilities:						
Access to Mainframe						
Communications						
Specifics (Non-shared) Personal Computing						
Support Desired:						
Application Problem Resolution						
Classroom Training						
Computer-Based Instruction						
Demonstrations						
Hardware and/or Software Acquisition						
Hotline						
Mainframe Access						
Newsletter						
One-on-One Training						
On-Line Data Searching of Commercial Data Bases						
Technical Library						
User Group						
Hardware:						
Modem						
Personal Computer						
Plotter						
Printer						
Lap-Top Computer						
Terminal						

APPENDIX E

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INFORMATION CENTER CASE STUDIES

INSTALLATIONS AT A GLANCE

	Fort Stewart	Fort Monroe	White Sands Missile Range	Fort Hood	Rock Island Arsenal	Fort Ord
Command	FORSCOM	TRADOC	AMC	FORSCOM	AMC	FORSCOM
Activity/ Tenants	24th Inf	HQ TRADOC	Missile Test	III Corps 2nd Armd 1st Cav 6th Cav 3rd Sig CATA	Army Armament Munitions and Chemical Activity	7th Inf
Military Personnel	15,000	1,200	1,400	38,000	370	20,000
Civilian Personnel	2,600	1,800	4,000	5,600	10,000	3,500
IC Planning Begun	05/84	10/85	10/85	83-84	09/84	NA
IC Implemented	07/85	10/85	07/86	84	01/85	04/85
IC Staffing	2 C 1 M	14 C 0 M	1 FT C 9 PT C	9 C 3 M	12 C 0 M	6 C 2 M
POC	912-767-2036	804-727-3516	505-678-1271	817-287-8466	317-782-2825	408-242-4567
Program Highlights	Backup Equipment	Product Standards & Auto Help Desk Log	User Groups & Networking Expertise	Memo of Understanding Re: Training & Tactical ICs	Manager Training & Computer Coordinators	Training Facility

Note: Information regarding number of military and civilian personnel, and tenants and activities at each installation taken from ARMY: The Magazine of Landpower 35,no.10 (October 1985).

FORT STEWART

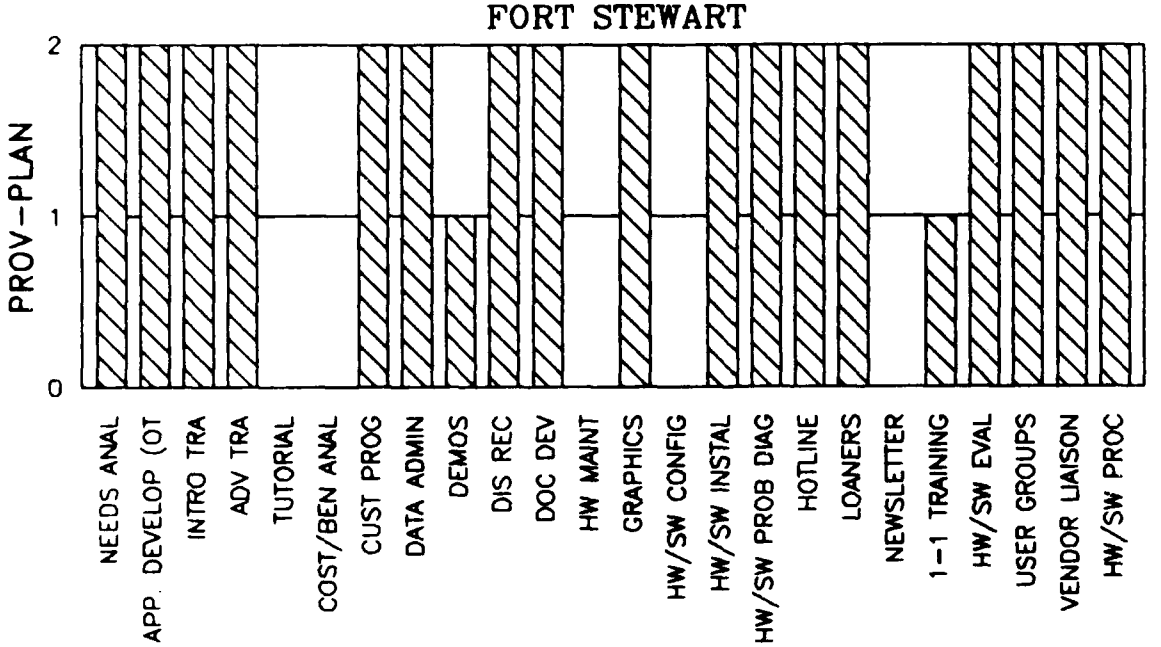
Fort Stewart, Georgia is the home of the 24th Infantry Division, and has a population of 15,000 military and 2,600 civilians. The IC at Fort Stewart was officially implemented 1 October 1985 and encompasses the functions of the former Automation Management Office (AMO). Many IC like services were offered before the official implementation of the IC. In keeping with the microcomputer focus of this guide, this case study centers around the microcomputer end-user support offered by Fort Stewart. Microcomputer support has been offered since 1984. Further description of the IC is found in Appendix F. Figure E-1 shows which services are currently being provided (height = 2) and those which will be provided within the next year (height = 1).

The Fort Stewart User Group is scheduled to meet on the third Wednesday of each month during regular working hours. The stated purpose of the meetings is to:

> "provide for information interchange, discussion of application developments, and any other items useful to the group as a whole."

All microcomputer users are invited to attend and anyone having an item of interest may have it placed on the agenda. Speakers are usually obtained for these meetings. The IC maintains a library of public domain software

FIGURE E-1 SERVICES PROVIDED



under the auspices of the user group. This software is available to users without charge. Users having an application that is of such general application that it may be utilized by other users in the group, are urged to submit the application for inclusion in the library. Forms and instructions for documentation and submission have been distributed to the user group members. Minutes of each meeting are distributed to all users, and may contain copies of other articles, notices, or announcements of general interest. Appendix F contains examples of user group related correspondence. Demonstrations, other than to the user groups, are scheduled on an ad-hoc or as requested basis.

The IC supports end-users with a terminal on a mainframe computer or a stand alone microcomputer, and plans to initiate support for networked microcomputers in the near future. It attempts to fully support software purchased from a list of recommended software and will support other software on a case basis. There are approximately 180 micros currently in use on Fort Stewart, all in a stand-alone mode. The micros represent approximately thirteen different models, and many more configurations. The IC has a backup machine in its demo area for most of the different models in use. This allows the staff to replicate a user's situation over the phone.

The IC maintains an application which defines various standard system configurations. These configurations are primarily based upon the items available on the standard GSA lists. Given a set of processing requirements, the application can print out a configuration listing showing the items to order, stock number, price, and provide an order total.

The Fort Stewart IC is involved in the procurement of micros through the following: (1) determining technical configuration with the user, specifically, will it work as the users anticipates, and does it fit the standard information architecture, (2) receiving the equipment and verifying working order, (3) issuing the hardware and software to the user, and (4) conducting a four-hour introductory course at the time of delivery. In addition, the IC maintains an automated report entitled the DOIM DPI Inventory/Hand Receipt Report. This report lists all equipment and software with the associated costs and serial numbers.

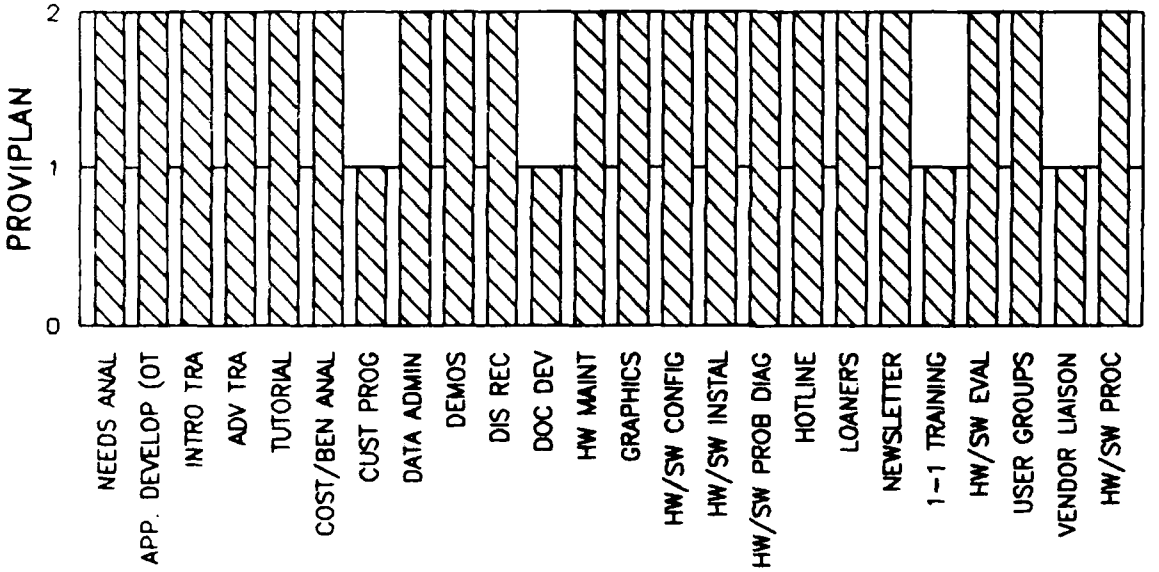
FORT MONROE

Fort Monroe, Virginia is the headquarters of the Army Training and Doctrine Command, and has a population of 1,200 military and 1,800 civilians. Their IC was officially implemented in July 1985; planning was initiated in May 1984. An implementation plan for the IC, or the Physical Information Center (PIC) as it is called there, was developed. A draft of that plan is found in Appendix F.

The Fort Monroe IC is located in the Customer Support Division (CSD) of the Data Processing Field Office (DPFO). The IC is staffed by a combination of civilian and contractor personnel. A summary of the services currently offered, and those planed by this IC are shown in Figure E-2. Formal classroom training on microcomputer hardware and software is offered by the Training Branch, Application Systems Division, DPFO.

FIGURE E-2 SERVICES PROVIDED

FORT MONROE



SERVICES

The help/info desk was established in September 1983, to handle ADP related hardware, software, and communications problem calls. The IC has developed an automated help/info desk log, Information Center Events Processing System, ICEPS to track the status of problems called in to the help/info desk. This log is updated daily; the daily logs are rolled into a weekly report. A monthly report is currently being developed. A sample copy of the daily log is found in Appendix F.

Periodic demonstrations of new and existing hardware and software are conducted in the IC. The IC also has copies of many of the most popular

software packages available so that a user may come in and "test drive" a given package before making the decision to buy. In addition, several written overviews of popular software packages have been developed and distributed to the users. The IC is planning to start a newsletter and User Groups within the next year.

Fort Monroe uses Information Systems Officers (ISOs), who are located in the functional areas, and who have ADP knowledge. Users go to their ISO first when they have a problem, then if the problem cannot be resolved at that level, the ISO contacts the IC. The ISOs meet monthly. Users also go through ISOs for ADP procurement requests.

A single-user microcomputer standard has been identified for HQ TRADOC and Fort Monroe. The IC strongly supports this standard, and provides assistance to those using the standard products. Other, non-standard, products, are in use, but the users are made aware that in-depth support may not be available on these products.

The Fort Monroe IC is in the process of developing product specialists in the areas of word processing, spread sheets, databases, project management, and graphics. Staff development, in order to create these specialists, has been emphasized.

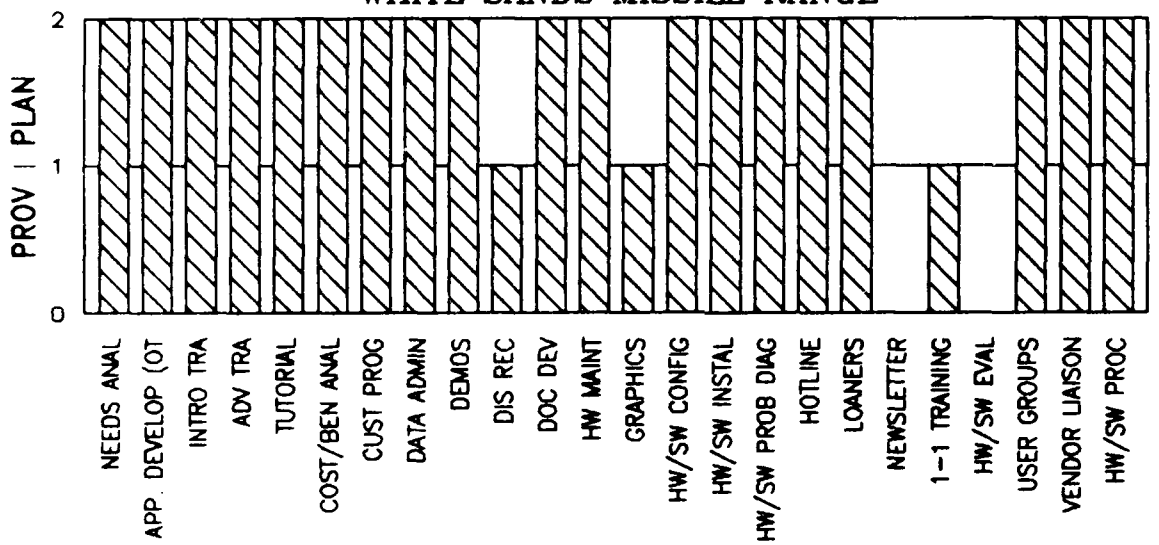
The IC has implemented procedures so that the user can describe his functional requirements, and can be automated without the need to understand ADP acquisition or equipment configuration. An outline for the basic functional requirements for automation support is found in Appendix F. The process includes the following steps: (1) define requirements; (2) IC recommends configuration; (3) submit documentation for approval; (4) submit request for procurement; (5) perform site survey; (6) equipment delivery; (7) inventory and hand receipt to user; and (8) equipment installation.

WHITE SANDS MISSILE RANGE

White Sands Missile Range, New Mexico is the Army's main missile test site and has a population of 1,400 military and 4,000 civilians. Computer users have traditionally been supported at White Sands jointly by the Computer Systems Directorate (CSD) and the data communications shop. 1 July 1986 marked the official beginning of the IC. The IC had been planned since October 1985. A summary of the user support services offered by White Sands is shown in Figure E-3. Services planned, but not currently offered are also indicated.

FIGURE E-3 SERVICES PROVIDED

WHITE SANDS MISSILE RANGE



SERVICES

User groups have been used successfully at White Sands Missile Range for more than twenty (20) years. Four (4) different groups currently meet: (1) Work Place Automation (WAS); (2) microcomputer; (3) Intel; and (4) scientific and engineering users. User groups meetings are scheduled monthly during duty hours. The first half of the hour-long meetings are devoted to a formal presentation by a subject matter expert. The last half of the meeting takes the form of a roundtable, where users share problems, solutions, and lessons learned. Meetings are advertised in the weekly installation newspaper, and on bulletin boards.

Training is sponsored by the Scientific Systems Division of the CSD. An annual training needs survey is conducted, and training for the entire

year is scheduled based on the survey. A copy of the needs survey, and a course evaluation form are found in Appendix F. Actual classroom training is conducted by contract personnel, but the course curricula is set by the staff.

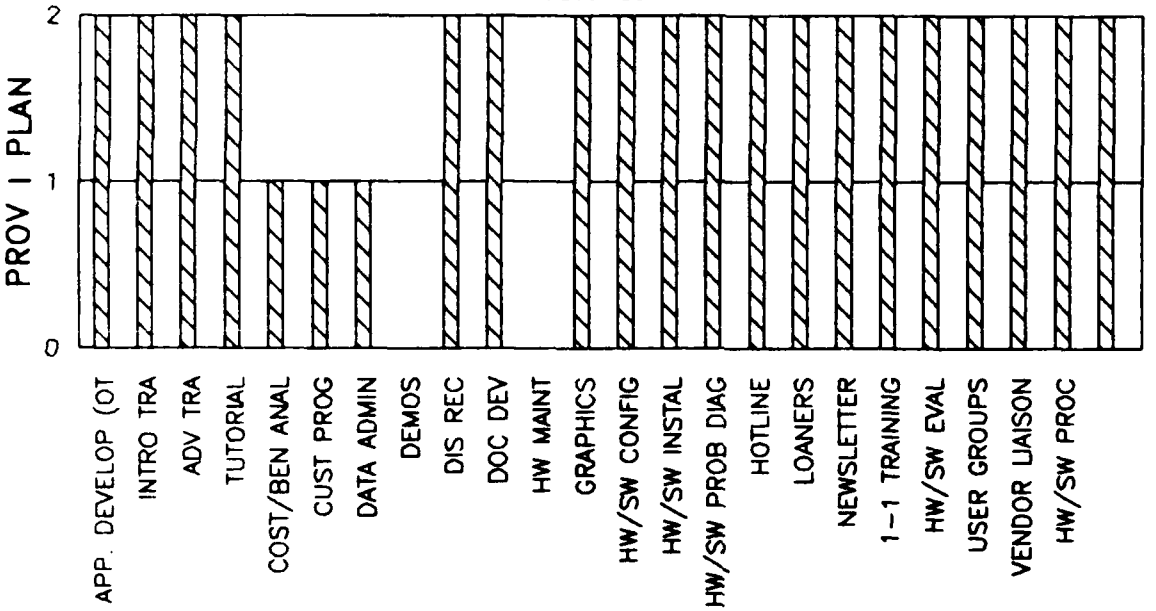
White Sands conducts an annual survey of all elements on post to solicit information on applications in use, including software developed by users. The survey results in a published catalog which lists the application area, how the software is used, the organization, and a point of contact, for each application. IC also maintains an automated library of public domain software available to users without cost.

FORT HOOD

Fort Hood, Texas is the headquarters of III Corps, 2nd Armored Division, 1st Cavalry DIvision, 6th Cavalry Brigade, 3rd Signal Brigade, and Combined Arms Test Activity and has a population of 38,000 military and 5,600 civilians. The IC at Fort Hood has been in existence since 1984; planning for the center was begun during 1983-4. A summary of those services currently offered by the IC, and those planned, is shown in Figure E-4. In addition to the current centrally located IC, two additional ICs are planned at each end of the post.

FIGURE E-4 SERVICES PROVIDED

FORT HOOD



SERVICES

Training is offered and conducted by IC staff. Users are required to participate in training before they are issued a PC. The IC offers training on the installation's standard software packages, and provides training geared to managers as well. The Civilian Personnel Office (CPO) conducts a semi-annual training requirements survey, and schedules students for training. Both civilian and military personnel are eligible for training. A local college has agreed to accept courses offered by the IC for credit. The responsibilities of the DOIM IC, CPO, and DAMO are described in a formal Memorandum of Understanding. A copy of this document is in Appendix F.

The four (4) of the six (6) tactical units at Fort Hood have established their own ICs, which focus heavily on training. Users begin with the vendor supplied tutorials that come with the software packages. They then progress to paper tutorials, developed by the tactical ICs, with exercises based on work requirements. When the user has completed this tutorial, he develops an application, with the help of the tactical IC, specific to his job situation. This training sequence may take place over a period of several months, with the user spending approximately four (4) hours a week in the tactical IC. An Information Management Council is planned, which would bring together on a regular basis the tactical unit information managers with the DOIM and staff.

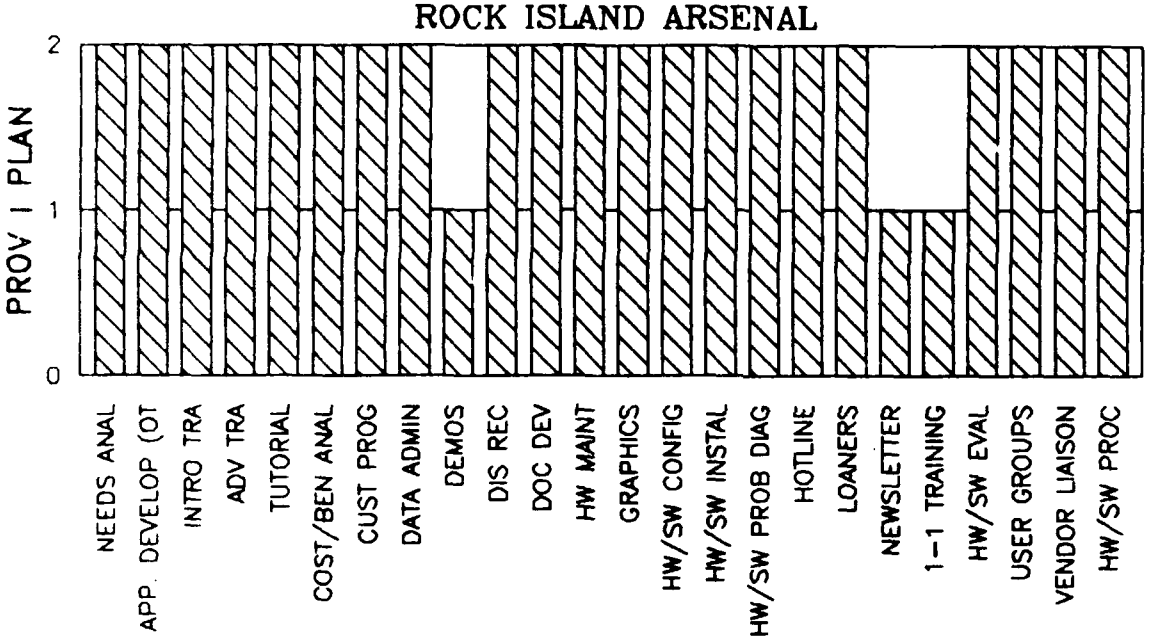
The sequence for procurement of ADP resources is as follows: (1) user identified need; (2) IC analyst helps user identify requirements; (3) user completes capabilities requirements form (a copy is located in Appendix F); (4) requirement goes to the plans and management office for approval; (5) requirement goes to automation division chief who transfers it to a program analyst when it is mainframe related, or to the IC when it is PC related; (6) the IC configures the system; (7) the configuration, a project design plan, and a dollar estimate go to the user for review; (8) item ordered; (9) user receives training; and (10) IC provides installation assistance.

The Center estimates that 90% of the users purchase the installation standard hardware and software products. The IC does not promise to provide in-depth support of products not listed on the standard list.

ROCK ISLAND ARSENAL

Rock Island Arsenal, Illinois is the headquarters of the Army Armament, Munitions and Chemical Command and has a population of 370 military and 10,000 civilians. The IC at Rock Island was implemented on 1 January 1985 and a reorganization was expected 1 October 1986. Planning for the Center was initiated in September 1984. The installation has been working with an IC like concept for more than eight (8) years. A summary of the services currently offered by the IC, and those planned, is shown in Figure E-5.

FIGURE E-5 SERVICES PROVIDED



SERVICES

The IC at Rock Island has developed applications for users; an atypical function for an IC. Working closely with the end-user, a Manpower Tracking System, an Acquisition Tracking Center, and several other applications have been developed for the installation.

The IC has developed a training course for managers, which includes demonstrations of the software packages most widely used on the Island. The course was prepared and is presented using Energraphics software, and a projection unit. This program has top management support, and has been recommended by the Commanding General. A copy of the DF to all Rock Island directorates, and a course outline is included in Appendix F.

The IC surveys users every two (2) to three (3) three months to ascertain training requirements. Responses are returned on a DF. The IC offers a three (3) day training course which is conducted by the Chicago branch of the Office of Personnel Management (OPM). Commercially available paper and computer based tutorials are also available for users, by appointment.

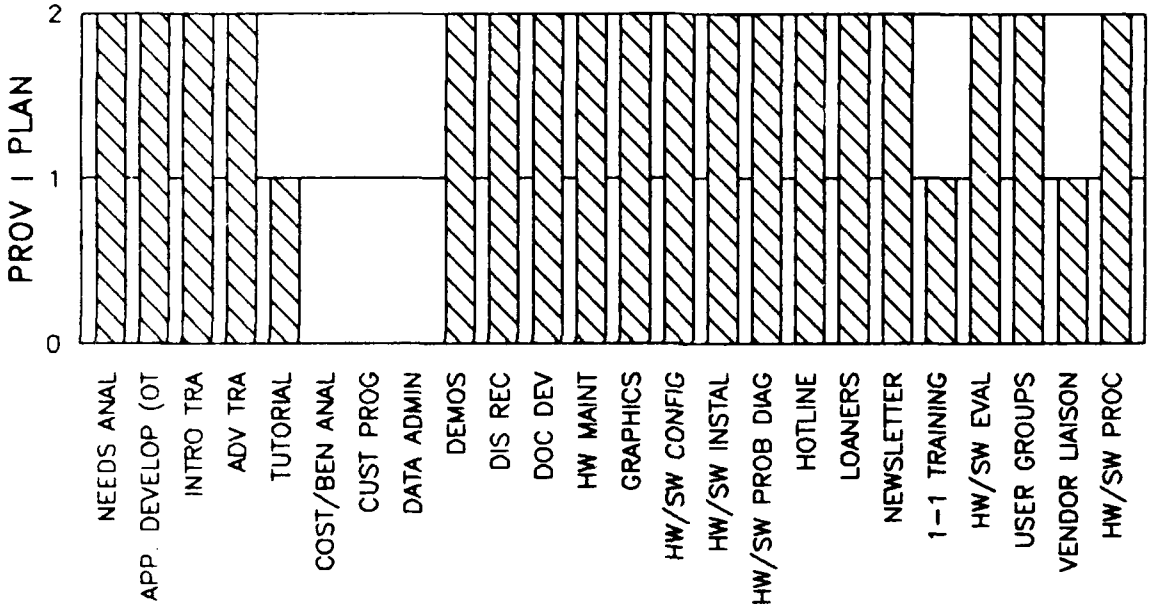
Each directorate at Rock Island has a Computer Coordinator (CC). This is a full-time staff position. The CCs function as mini ICs. Users go to their CC first, when they have an ADP related problem. The CCs set up applications--often providing user friendly menus, distribute passwords, and provide one-on-one training for users. The CCs use the IC as a resource when they need additional. Because the CCs are located in the directorate, their knowledge of the particular business area is often useful when helping the user.

FORT ORD

Fort Ord, California is the home of the 7th Infantry Division, and has a population of 20,000 military and 3,500 civilians. The IC was an outgrowth of the 1983 ISP; the Center was officially implemented in April 1985. A two year projection of work tasks was formualted in November 1985. Currently the IC occupies two (2) buildings. One building is devoted to training, and is also the location of the help desk. The second building includes staff offices, and the software library. A summary of the IC's services, both those currently offered and those planned, is found in Figure E-6.

FIGURE E-6 SERVICES PROVIDED

FORT ORD



SERVICES

The IC has developed training courses, which include paper tutorials. These tutorials allow the user to replicate the classroom exercises after he returns to the office. An outline of one of these tutorials is found in Appendix F. The classes meet for half a day, for one week. The instructors, members of the IC staff, are also available for one-on-one consultations with users. The computer classroom is also available to users when courses are not in session. The classroom is currently furnished with six (6) PC borrowed from the functional areas; the IC has it own PCs on order. Initially, the IC scheduled users for training. This function was recently turned over to the CPO. The IC is currently considering arranging classes according to GS grade level to ensure more homogeneity in the classroom.

A trouble tracking sheet has been developed by the IC. A copy of this sheet is located in Appendix F. This system ensures that trouble calls are followed until the problem is resolved.

The Center maintains a software library which contains four (4) to six (6) copies of popular software packages, including several tutorials. Users can check out software from the library.

Hardware and software is hand receipted to the users from the IC. The IC manages the contracting and configuration aspects of procurement. Moneys are transferred to the IC for purchases.

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APPENDIX F

MATERIALS DEVELOPED BY ARMY ICs

TRAINING

PROBLEM TRACKING LOGS

USER GROUPS

ADP REQUIREMENT/REQUEST

IMPLEMENTATION PLANS

SOPS

POSITION DESCRIPTIONS

INDIVIDUAL DEVELOPMENT PLAN

USER GUIDES

NEWSLETTERS

BROCHURES

IC PROGRAM DESCRIPTION

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ROCK ISLAND ARSENAL

DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
AMSMC-MSS-I	Educating Mid/High Level Managers

TO ALL DIRECTORATES FROM AMSMC-MS DATE 0 2 JUN 1986 CMT 1

Mr. Christison/jer/22825

1. The CG has recently recommended instruction for mid/high level managers in an abbreviated workplace automation course. The purpose of this instruction is to give the manager an awareness of the capabilities and to share experiences in using the new high tech tools.

2. The course will survey recent developments in hardware/software and provide demonstrations on how they are being applied to assist in improving productivity in the workplace (encl). Many areas have reported a 15-20 percent increase in productivity with isolated cases of 80 percent. The use of these tools has contributed to cost avoidance in the millions of dollars.

3. Training sessions will be held each Wednesday, starting 04 Jun 86 (1200-1500) in the AMSMC-MSP conference room, building 104, 2nd floor, west wing.

4. To implement this training, request each directorate appoint a POC to coordinate scheduling with AMSMC-MSS-I, Ralph Christison, extension 22825.

D. L. O'Melia

DAVID L. O'MELIA
Director, AMCCOM Information Management

Incl
As stated

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED

☆ U.S. Government Printing Office: 1983—406-863

EDUCATING MID/HIGH LEVEL MANAGERS

I. Workplace Automation Tools
   COMMAND MENU
   a. E-MAIL
   b. Word Processing (DEMO)
   c. Spreadsheet (Demo)
   d. Data Base (INFO, (DEMO) PC-INFO, FOCUS, dBASE III)
   e. Graphics
   f. Project Management (Display)
   g. LSSA Tool Kit
   h. MFWS Concept

II. Networking (Connectivity)
   a. PRIMENET
   b. LAN, SUBLAN
   c. DDN

III. Training Sources
   a. OPM (LOTUS, dBASE, WORDSTAR, CROSSTALK)
   b. INTEL (Chi)
   c. Local Community Colleges (SCC)
   d. Information Center
   e. AMETA

IV. Information Management Plan (IMP)
   a. Approval
   b. Funding

V. Hardware Availability

a. PRIME MINI (PRIMOS/UNIX)

b. INTEL MICRO (UNIX)

c. MICRO (MS-DOS)

d. DA MINI

e. Tri-Service (Zenith)

VI. Interoperability

a. Uploading/Downloading (text)

b. Exchange Files

(1) FOCUS - LOTUS 1-2-3

(2) INFO - dBASE III

(3) LOTUS 1-2-3 - LOTUS 1-2-3 (via tele lines)

(4) INFO - INFORMIX

(5) INFORMIX - PRIME - CCSS

(6) WORDSTAR - PRIME- MILNET

VII. Major Micro/Mini Operational Systems

a. ATC

b. CMC

c. MISS War Room

d. FAA Charts RD (AMC)

e. FAA Charts IBEA (VCSA)

f. Manpower Budget

g. PARR/COB/IOB
BPRR

VIII. Computer Coordinators

a. Identification

b. Duties

IX. User Groups (Information Exchange)

a. INTEL User's Group (Bulletin Board)

b. PC User's Groups

c. PRIME User's Groups

DISPOSITION FORM

F use of this form, see AR 340-15; the proponent agency is TAGO. S: 30 Apr 86

IEI RENCE OR OFFICE SYMBOL	SUBJECT
STEWS-PO-T	FY 87 Survey Needs for INTEL 310 AND WYSE PC's Software Training

O Training Coordinators: FROM PO-T DATE 11 Apr 86 CMT 1
Ms. Gregorcyk/bg/678-1533

AD	DPCA	JA	PO	IR	ATOR-TRM	OTD
SLCAS	DE-BM	NR-LM	PR	TE-SE	RU	AMXTM-CW-WS-R
C	ID	OD	SA-E	ARRADCOM	SLCVA-RMS	NOMTS
IC	IG	PA	SA-R	AMSTE-MO-W	DMA	TC
RM	IS-MA	✓PL	SD	ASNC-TWS	HSHM-MHC	DALO-TAM-WH

1 Attached at Enclosure 1 is a request by IM-CS-S for FY 87 Needs Survey for INTEL 310 and WYSE PC's Software training.

2 Please forward survey results to STEWS-PO-T, Attention: Joan Gregorcyk, NLT 30 Apr 86.

3. If there are any technical questions concerning the attached survey, please contact Mr Joe Silva, 678-1408.

David Leonard

Encl

DAVID S. LEONARD
Chief, Training & Development Division

STEWS-PL-P

TO PO-T FROM PL DATE 29 APR 86 CMT 2
Mr. Foster/kl/678-5670

The requested survey results are enclosed.

Encl
nc

CLYDE J. TREAT
Director, Plans and Quality Assurance

DA FORM 2496 PREVIOUS EDITIONS WILL BE USED

The purpose of this survey is to determine FY 87 training needs for the Intel 310s and Wyse PCs. Listed below is the most common software for these systems. For each item, please indicate the number of persons in your organization who will require training during FY 87. If a particular subject you are interested in is not listed, please enter it in the line marked "other" and write a brief description. Please make entries only on those software packages which your organization has or will possess.

XENIX (INTEL 310) CURRICULUM Organization 82

4	iDIS & E-Mail
6	iWORD
____	Lyrix
____	Multiplan
6	iDB
3	Informix
____	High Tech Business Graphics
____	PBG 200
3	iPC
3	iDB DBMS Administraion
3	Informix DBMS Administraion
2	System Administration
____	Other _____
____	Other _____

MS-DOS (PC) CURRICULUM

6	PC using MS-DOS
8	MultiMate
____	WordStar
____	SuperCalc2
____	Lotus 1-2-3
____	Symphony
____	Framework
____	DBase III
3	Crosstalk
____	Harvard Project Manager
____	Energraphics
____	Multiplan
4	Knowledgeman
____	Graffhopper
____	Pertmaster
____	Open Access
____	Other _____
____	Other _____

Encl 1

DOIM STUDENT INFORMATION

NAME (LAST, FIRST)	RANK	TELEPHONE NUMBER

MACOM	UNIT

CLASS (CHECK ON)

[ ] WORDSTAR [ ] LOTUS 123

[ ] DBASE III [ ] CMS

[ ] APLDI [ ] PROFS

[ ] INTRO TO MICROCOMPUTERS

CLASS COMPLETION DATE

DOES YOUR OFFICE HAVE THE FOLLOWING: (CHECK ONE)

SYSTEM	YES	NO	ON ORDER
MICROCOMPUTER			
DOS			
WORDSTAR			
LOTUS 123			
DBASE III			

FORM 1 MAY 86 **5100-2** DOIM)

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WHITE SANDS MISSILE RANGE

IM-CS-S CLASS QUESTIONNAIRE

Instructor _____ Course _____ Date _____

For questions 1-5, indicate whether you agree with each statement. Negative responses may necessitate comment.

	Yes	No	Comments
1. The length of the course was appropriate.			
2. The level of difficulty was correct.			
3. The text, handouts, etc.			
a. were sufficient in quantity or number.			
b. were clearly written and understandable.			
c. proved quite helpful.			
4. Class assignments			
a. were relevant and useful.			
b. were reasonable in length and difficulty.			
5. Exams and quizzes			
a. were reasonable in number.			
b. were reasonable in length.			
c. gave balanced testing of topics covered.			
d. were graded fairly and objectively.			

(CONTINUED ON REVERSE)

WHITE SANDS MISSILE RANGE

Please answer question 6 in regards to class presentations and lectures given by the instructor.

6. Class presentations and lectures:

	Good	Adequate	Lacking
a. Well organized and prepared.			
b. Sufficient time spent on each topic.			
c. Explanations clear and understandable.			
d. Student's freedom to ask questions and express opinions.			
e. Instructor's handling of questions and class discussions.			
f. Instructor's use of available facilities.			
g. Instructor's volume and clarity of speech.			
h. Atmosphere of class stimulated desire to learn.			
i. Overall effectiveness.			

7. What did you like best about this course? What were its strong points?

8. What did you like least or feel should be changed?

9. Would you recommend this course to your colleagues? To what degree?

10. Additional comments, if any.

PARTICIPANT EVALUATION
(CPR 400)

Use reverse for additional comments

Course Dates

Course Title

1. What did you expect to gain from this course?

2. Did it meet your needs?

3. What is your overall evaluation of the course? (Circle the letter)

Excellent	Very Good	Satisfactory	Unsatisfactory
A	B	C	D

4. Evaluate the effectiveness of each instructor. (Use letter scale in 3 above and add your comments.)

Name	Rating	Reason

5. What did you particularly like about the course...What were its strengths?

6. Do any parts of the program need improvements? [ ] NO [ ] YES (Please explain)

7. Did the course achieve its objectives? [ ] YES [ ] NO (If not, please explain)

8. General Comments:

Signature (Optional)

FORM 1 OCT 83 1008 (CPO) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

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DEPARTMENT OF THE ARMY
HEADQUARTERS III CORPS AND FORT HOOD
FORT HOOD, TEXAS 76544

REPLY TO
ATTENTION OF

MEMORANDUM OF UNDERSRANDING
BETWEEN
CIVILIAN PERSONNEL OFFICE, CORPS AUTOMATION MANAGEMENT OFFICE, HEADQUARTERS COMMAND, AND DIRECTORATE OF INFORMATION MANAGEMENT

SUBJECT: Computer Related Training

The following items are agreed to by the undersigned:

1. DOIM will:

a. Provide computer related training for both mainframe and microcomputer based systems. Training is currently provided in CMS, APL/DI, microcomputer operations, Lotus 123, WordStar, and dBase III. Classes will be added/deleted by the DOIM as requirements dictate.

b. Provide a schedule of classes to be presented twice a year; in December for the January-June period and in June for the July-December period. Scheduling will be based on requirements input from CPO, Corps AMO, and Hqs Cmd.

c. Allocate attendance quotas for the classes to CPO, Corps AMO, and Hqs Cmd based on requirements provided by the above organizations.

2. CPO, Corps AMO, and Hqs Cmd will:

a. Identify personnel to attend classes in accordance with quotas provided by DOIM; CPO-civilian personnel, Corps AMO-MSC military personnel, Hqs Cmd-Hqs Cmd military personnel.

b. Conduct a computer training requirements survey twice a year and provide results to DOIM by 10 December and 10 June of each year.

c. Act as the single point of contact for personnel (as indicated above) requesting computer related training.

SUBJECT: Computer Related Training

3. Effective date: This agreement becomes effective 15 Nov 85.

T. J. Leonard
COL, AG
DOIM

DATE 25 Nov 85

R. S. Newberry
LTC, SC
Corps AMO

DATE 12 Nov 85

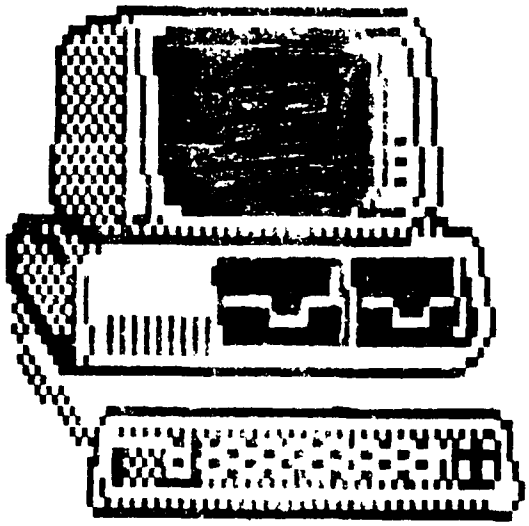
Donald L. Trent
LTC, AD
Commander, Hqs Cmd

DATE 12 Nov 85

James E. Hiltz
Civilian Personnel Officer

DATE 25 Nov 85

DOS/MICAOS TRAINING COURSE



USAISC-DOIM INFO-CENTER

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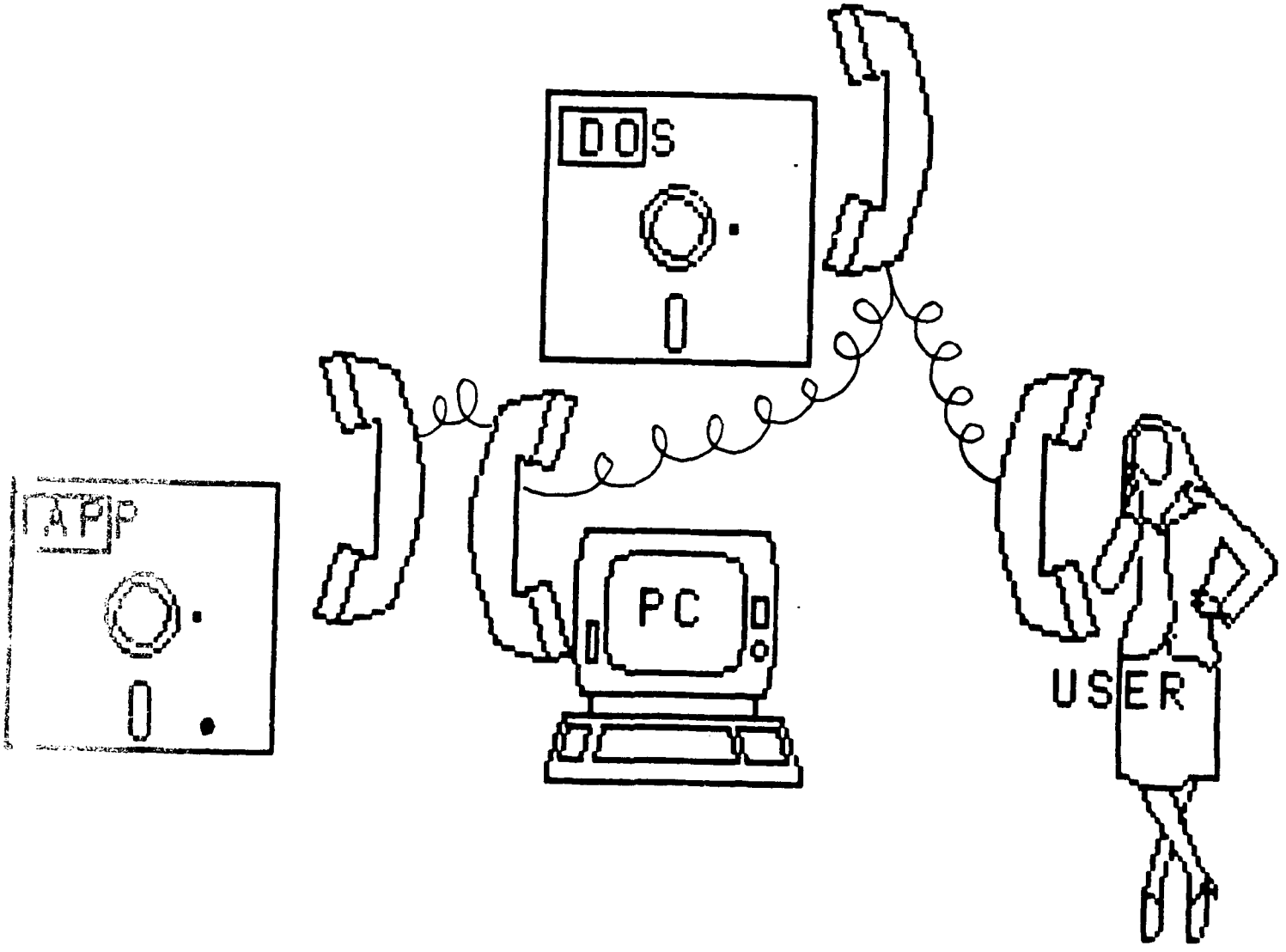
INTRODUCTION TO DOS

The Disk Operating System (DOS) is a set of programs that help you run the microcomputer. You can think of DOS as a translater who help you communicate with the computer and application software. At the same time DOS will organize you files and help you take care of them.

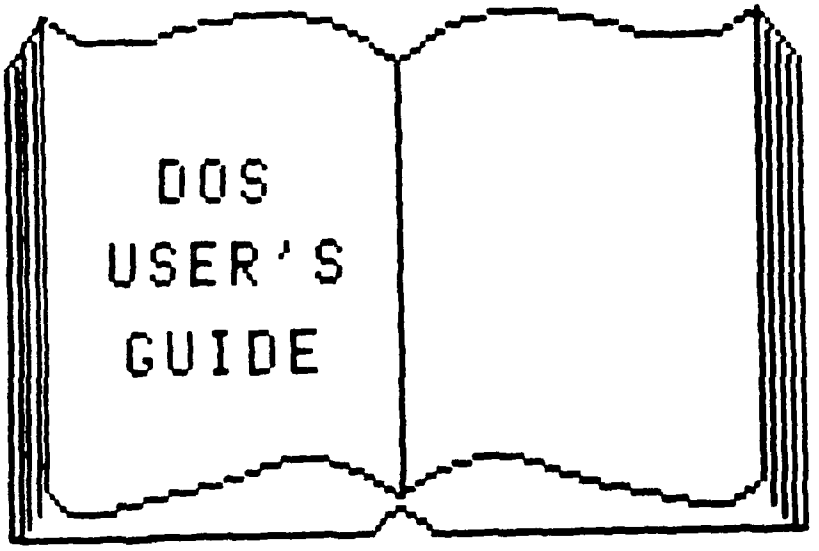


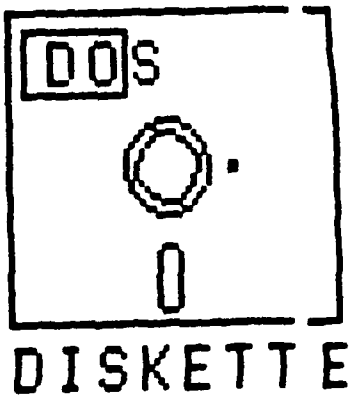
ABOUT YOUR DOS USER'S GUIDE AND DISKETTE

DOS comes with your computer. The DOS diskette is located in the back of your **DOS USER GUIDE** in a plastic pocket.

This is what comes with DOS:

1. DOS USER'S GUIDE
2. DOS DISKETTE

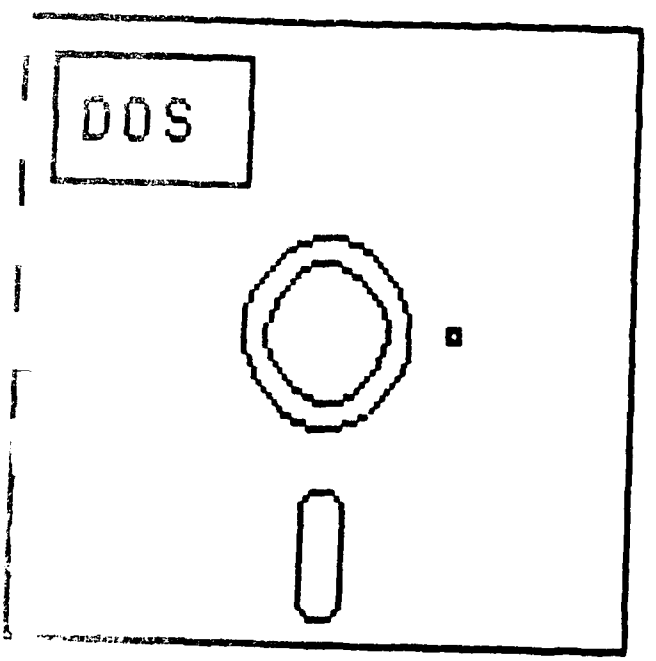


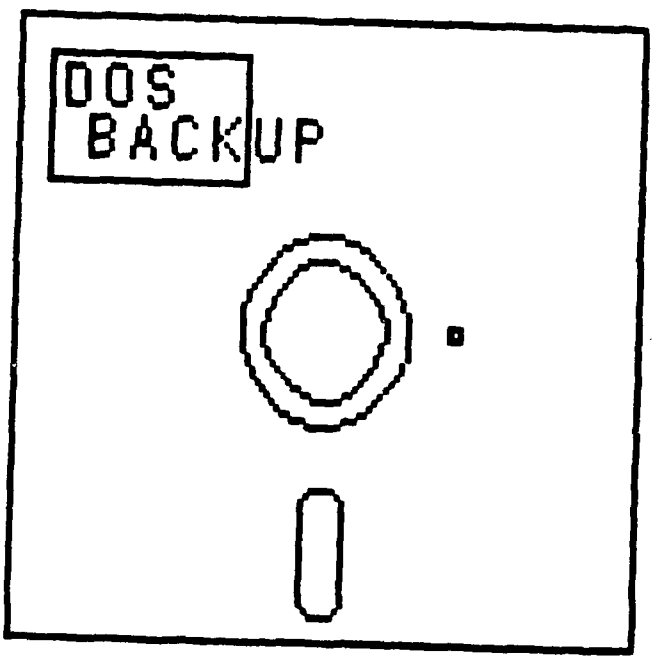


COPYING YOUR DOS DISKETTE

The first thing you need to do after setting up your computer is to make a working copy of your DOS diskette. That way you will not be shut down if your DOS diskette becomes misplaced or damaged.

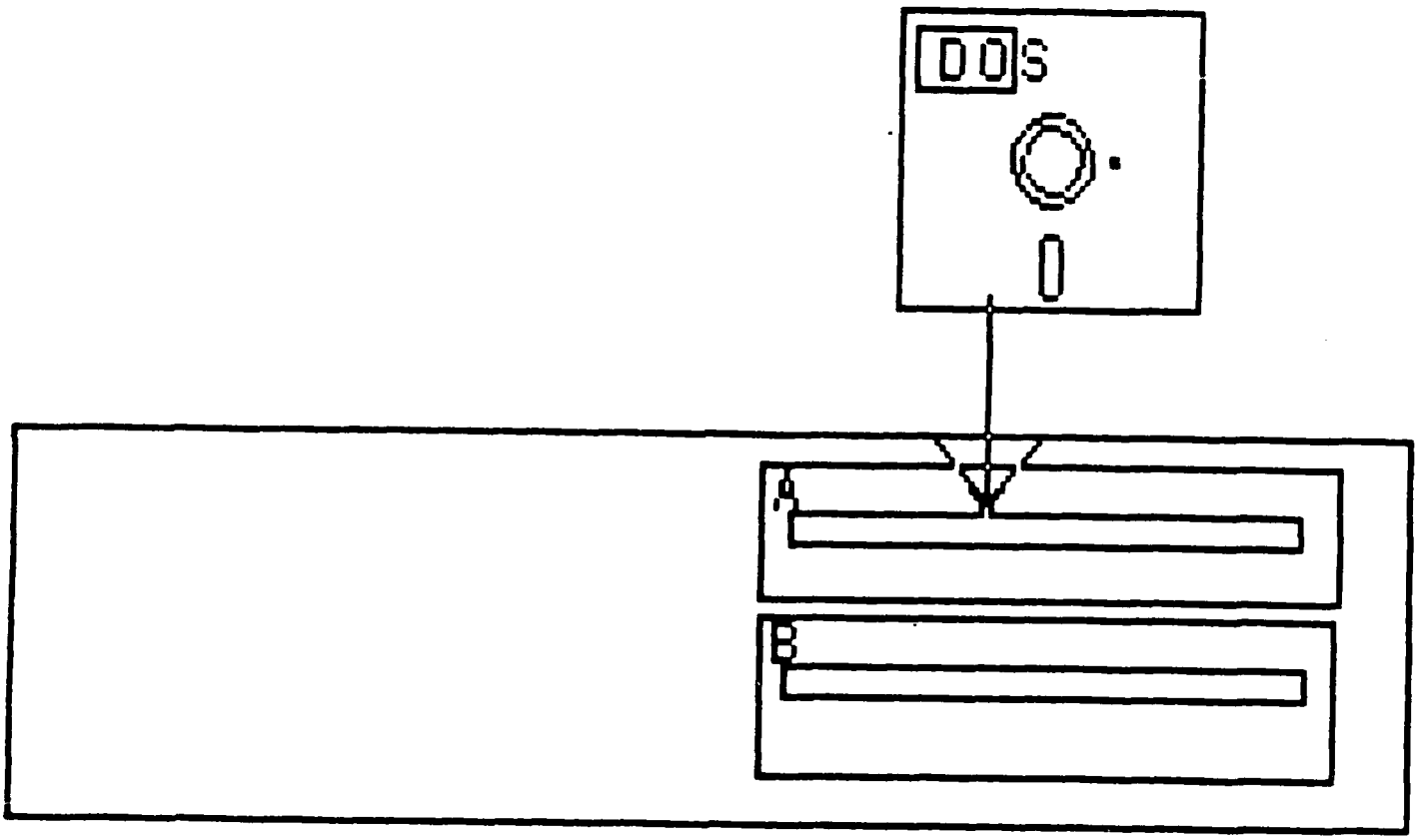
When you make a backup diskette, you should label and date it using a felt-tip pen. Store the original diskette in a safe place, be sure to put it in a protective envelope.





WHEN DO YOU NEED DOS IN THE COMPUTER

You need to put DOS in the computer when you first turn it on. Place the disk labeled DOS in the A drive and turn the power switch on. The computer will read what is on the disk and load it into memory. Only part of the commands are loaded into memory, these are called internal commands. You will not need the DOS diskette in the A drive. The commands that are not loaded into the memory are called external. To use this set of commands you must have the DOS diskette in the A drive.



INTERNAL COMMANDS

DIR
COPY
ERASE
RENAME
TYPE

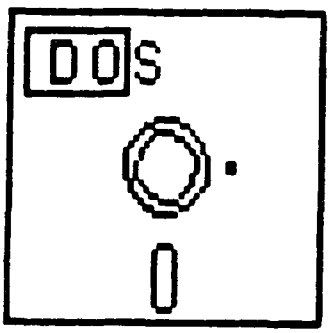
You do not need the Dos diskette in drive A for these commands to work.

EXTERNAL COMMANDS

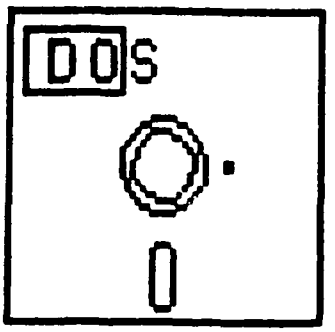
FORMAT
DISKCOPY
DISKCOMP
CHKDSK

You need the DOS diskette in the A drive for these commands to work.

NO



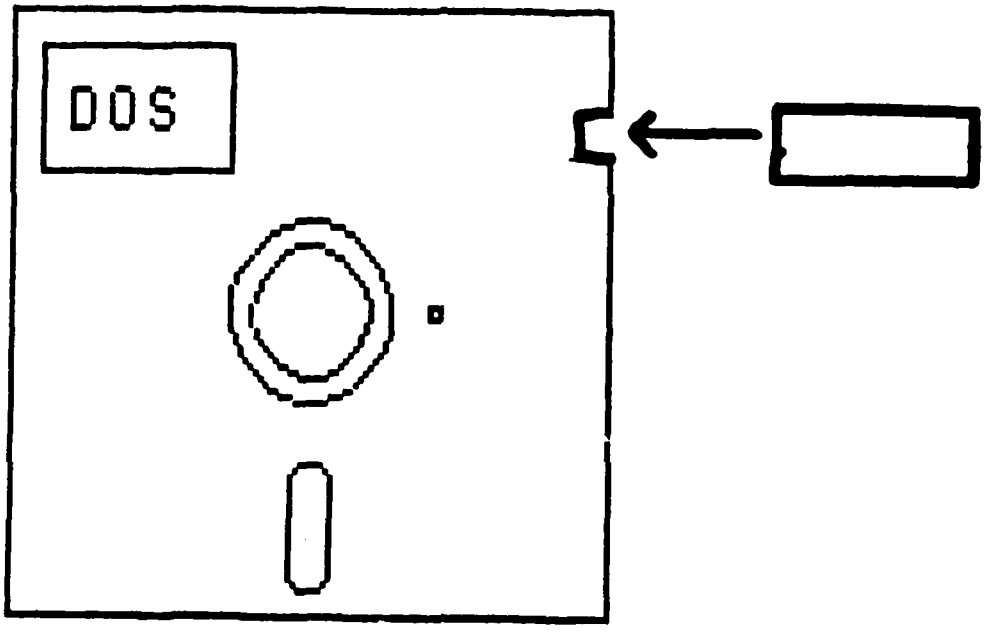
YES



WRITE-PROTECT NOTCH

Your diskette can be protected from being written on, by placing a tab over the write-protect notch. When the tab is in place the computer can not write over information already on the diskette.

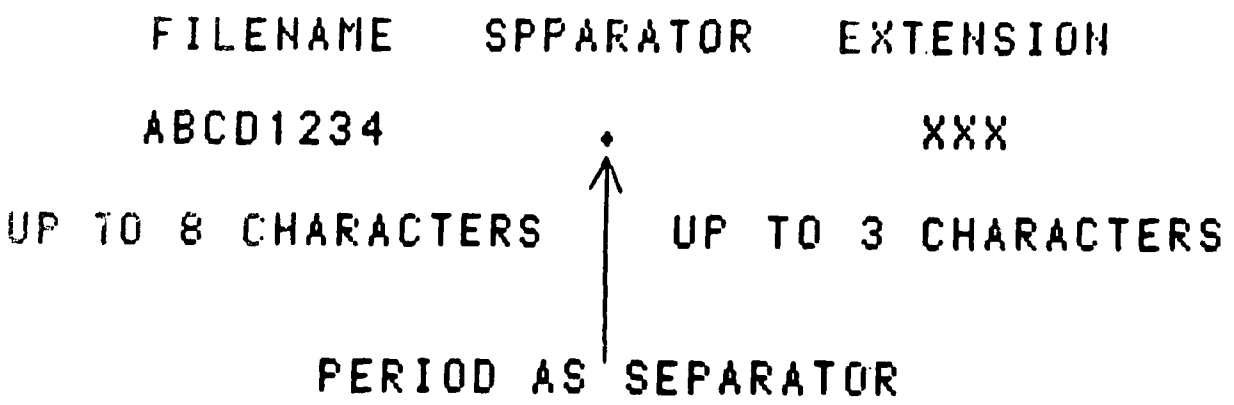
Your diskette come with write-protect tabs. When you receive a new box of diskettes, there are tabs and labels in it.



Files are related information that you store on a diskette. Each file has a name made up of a filename and a file extension. A file name can be any name you wish to use up to eight characters and a file extension can have up to three characters.

File names can use the alphabet (A-Z) and numbers (0-9). The use of special characters is not recommended for some of these symbols have special meaning to DOS.

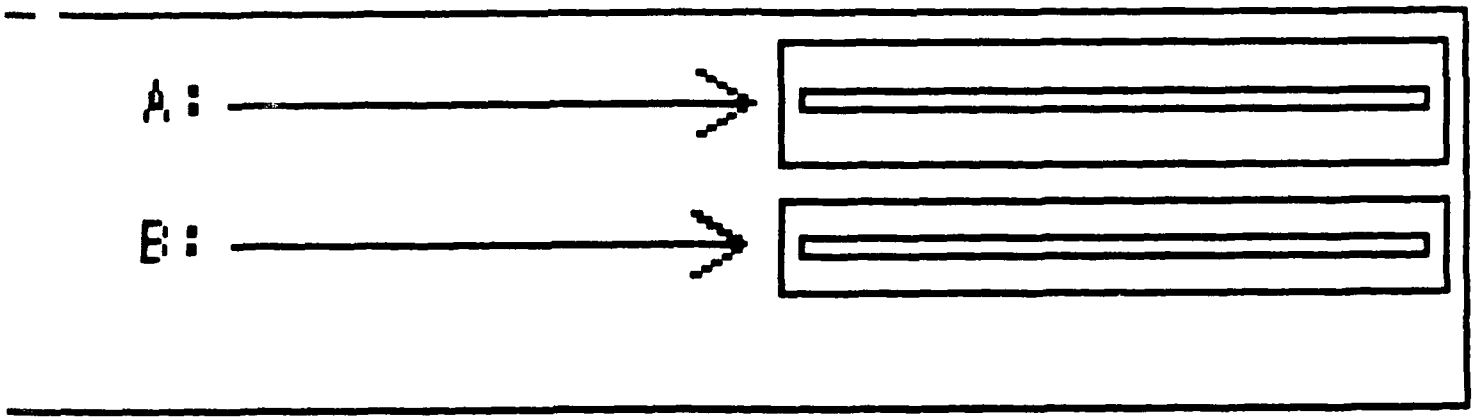
If a file name includes an extension, you must use both parts when telling DOS about that file.



DRIVE SPECIFICATIONS

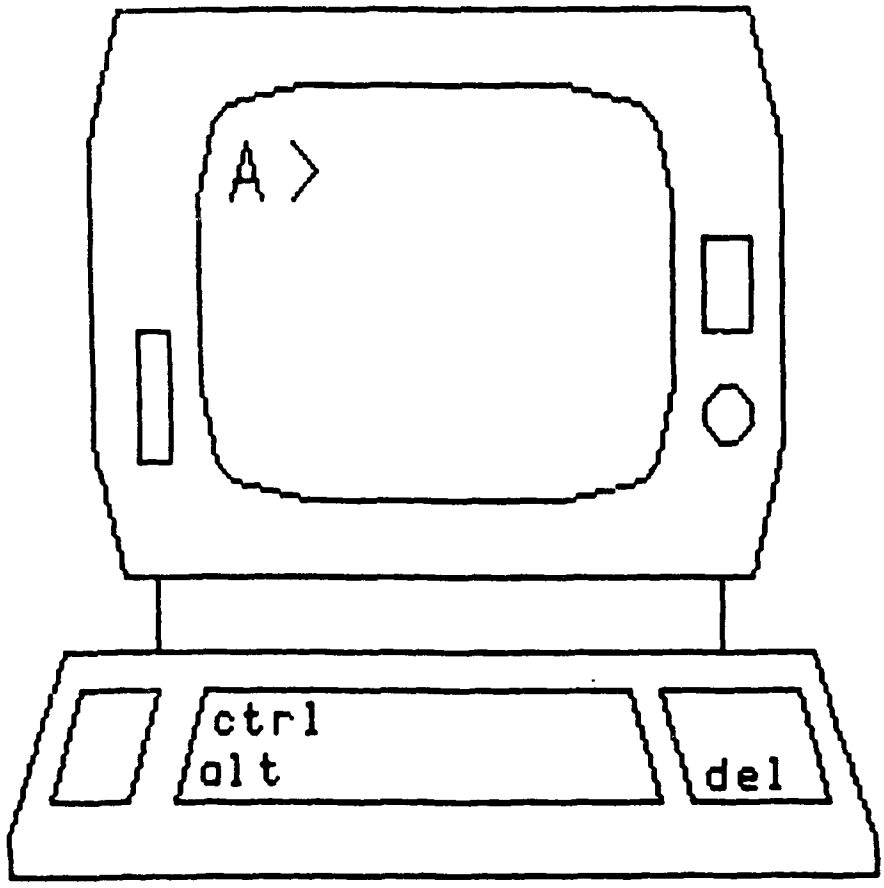
You must tell DOS where to look to carry out a command. You do this by designating the drive. The drive letter and a colon are called the drive specifier. On a two disk drive system there is the A: drive and the B: drive. If you are working with a hard disk drive You have C: drive and A: drive.

DOS will tell you which drive is in control by the prompt A>, on a hard disk you will see C> prompt. If you want to go from one drive to the other just type A> b:.



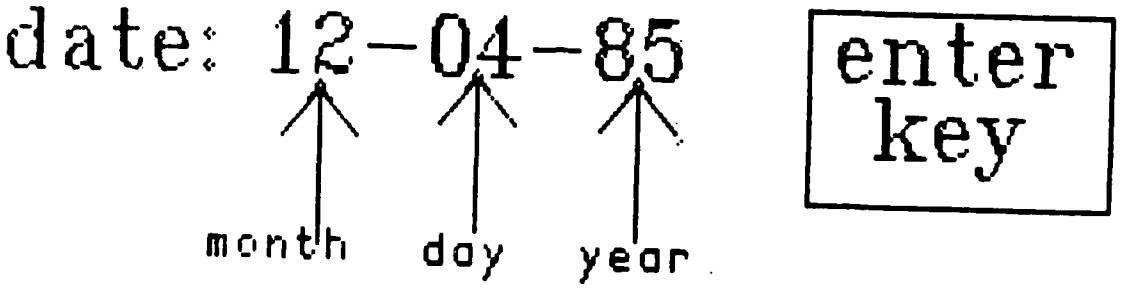
STARTING DOS

Starting DOS means to have the computer read the diskette and place the internal commands into it's memory. DOS will tell you that it is loaded when you see the A> prompt.



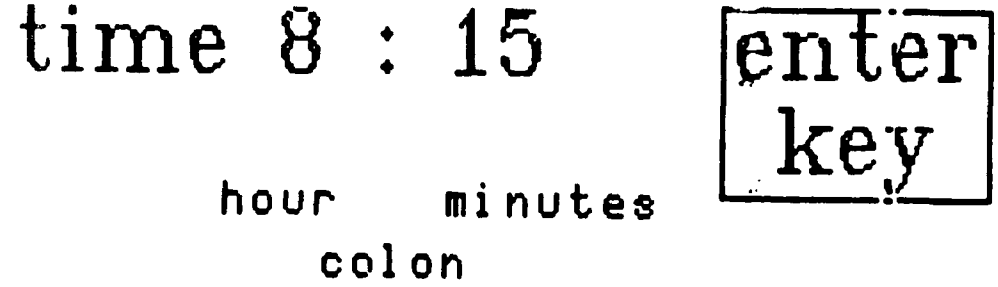
DATE

When you are loading DOS you will be asked to enter the proper date. You will type the date in order of month, day, and year. You can separate the date by a dash or a slash (- /). Once you have typed the date press the enter key.



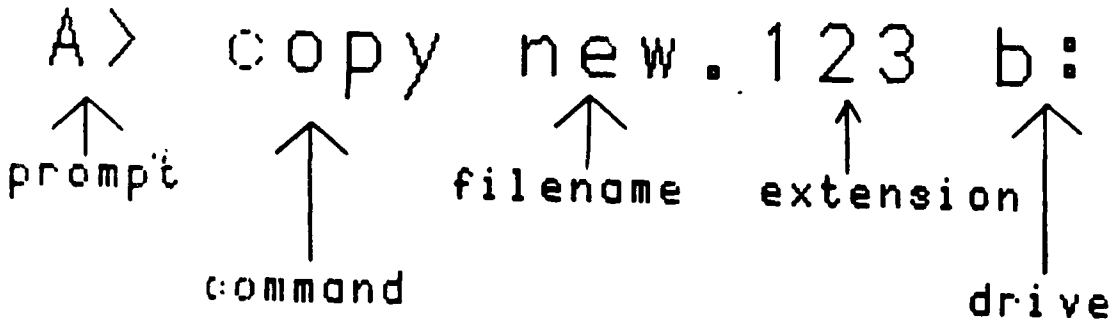
TIME

Once the date is typed in DOS will ask you to enter the correct time. You will type the time in order of hour, minutes, and seconds (you do not need to enter the seconds). Separate the hours from minutes with a colon. When the correct time is typed in press the enter key.



GIVING DOS A COMMAND

To give DOS a command you type the command at the A> prompt followed by the filename and the extension. If you wish to have the command carried out on another drive type the command at the A> prompt followed by the filename, file extension, and the drive specifier. You can enter commands in either upper or lower case. When the command has been properly typed in press the enter key.



FORMAT

The format command is used to check the disk for any defective tracks, it also aligns the disk to operate on the microcomputer that you are using. The disks are made to be used on any microcomputer and must be formatted before it can be used on your computer. The last thing format does for you is to prepare the disk for a file allocation table.

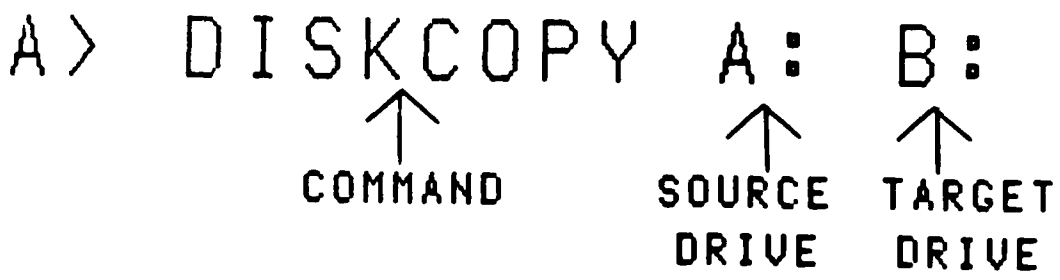
A>FORMAT B:

command drive

DISKCOPY

The diskcopy command is used to make an entire copy of one disk on to another. It is not used to make a single copy of one file; use the copy command to do that (the copy command will be covered later). Use the diskcopy command to make working copies of your system disk (IF THE COPYRIGHT WILL PERMIT YOU TO!!!),or to make a backup of your data disk.

You will need the DOS diskette in the A drive. At the A> prompt type diskcopy and press the enter key (on the IBM type diskcopy followed by A: B:).



DISKCOMP

The diskcomp command will let you see if two disks have the same exact information on them. You can use this command to see ifthe backup is identicale to the original.

You will need the DOS disk in drive A. At the A> prompt type diskcomp and press the enter key (on the IBM you will type diskcomp A: B: and press the enter key).

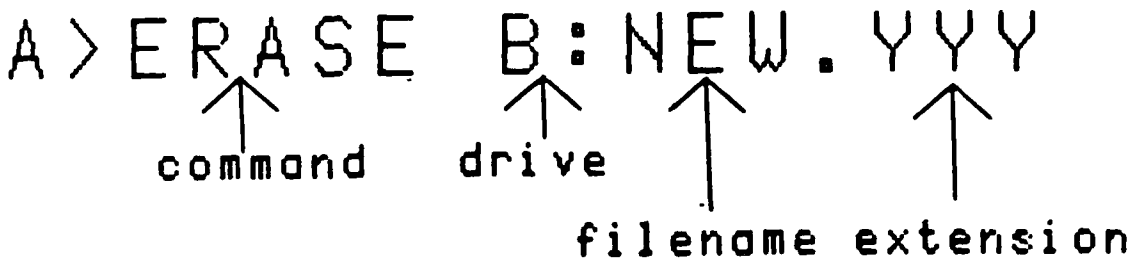
DIRectory

You use the DIR (directory) command to see what files are on your disk. The directory will show you the exact filenames and extensions that you have used on that disk. It will also tell you the number of characters that are in the file, and the date and time you last worked with the file. **THE DATE TIME THAT APPEARS IN THE DIRECTORY IS WHY YOU SHOULD ALWAYS ENTER THE CORRECT TIME AND DATE WHEN LOADING DOS.**

To call up your directory at the A> prompt type dir and press the enter key. If you wish to look at the directory on another drive, at the A> prompt type dir and then the drive you wish to look at.

ERASE

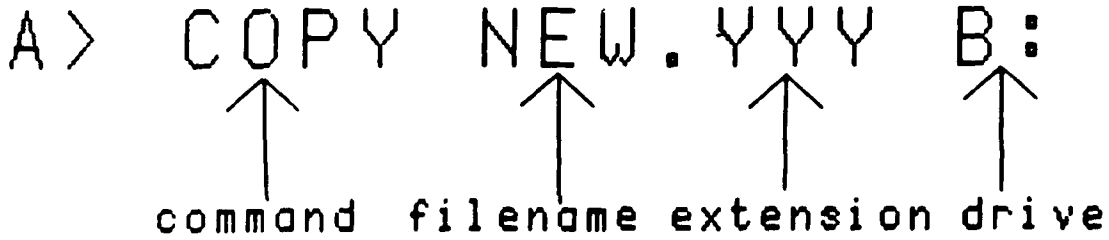
The erase command is used to remove a file from your disk. By removing old files that are no longer needed, there will be room for new files. At the A> prompt type erase, filename a period and the file extension. If you wish to erase a file on another drive, type erase drive specifier, a colon, filename, period and file extension.



COPY

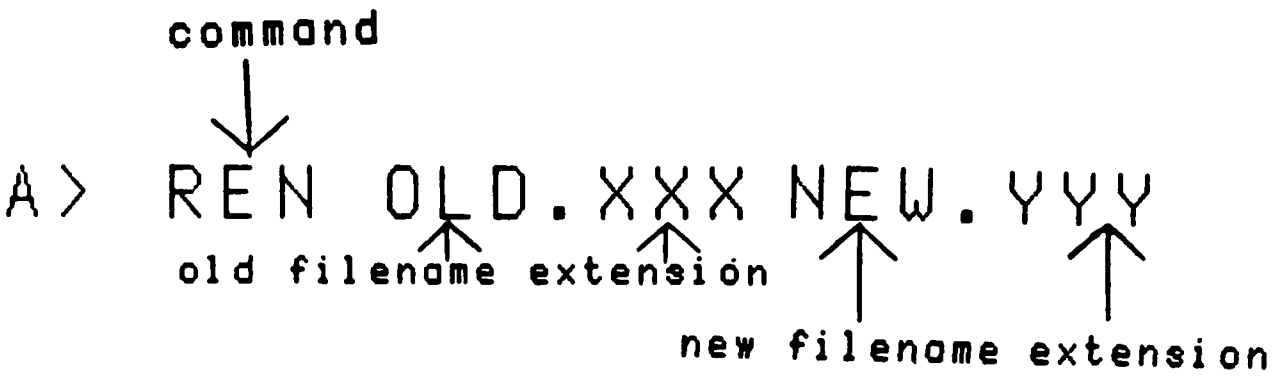
The copy command is used to copy a file or a number of files from one disk to another disk. At the A> prompt type copy the filename and the file extension and then the drive specifier.

You can also use a wild card, an ASTERISK in a filename or extension or both. The will card will copy all files with that same filename or file extension. At the A> prompt you could type *.com B: and the computer would copy all files with the extension of COM. onto the disk in the B drive.



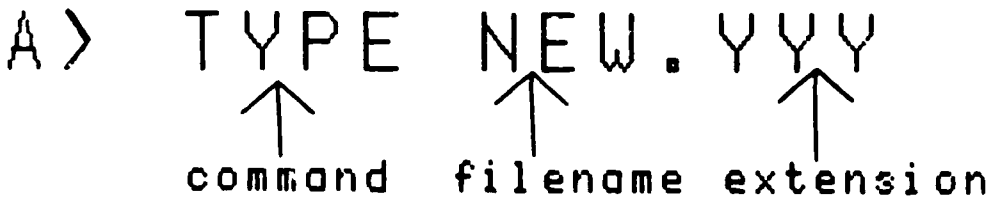
REName

The ren command is used to rename a file or extension to a new name and extension. Often we name a file with one that is hard to remember; rename let's you change that name to one that is easier to remember. At the A> prompt type ren, the old file name, file extension, and then type the new name and extension.



TYPE

The type command is used to let you see what is in a file and have it displayed on screen. If it is a text file you may be able to read it, a program file may be unreadable. At the A> prompt type in type and the filename. ?



THE INFORMATION CENTER

BLDG 2887/2888

FORT ORD, CA

(408) 242-4567/5264

TROUBLE DESK - 242-4895

LOTUS 1-2-3

AN INTRODUCTION

FORT ORD INFORMATION CENTER

TABLE OF CONTENTS

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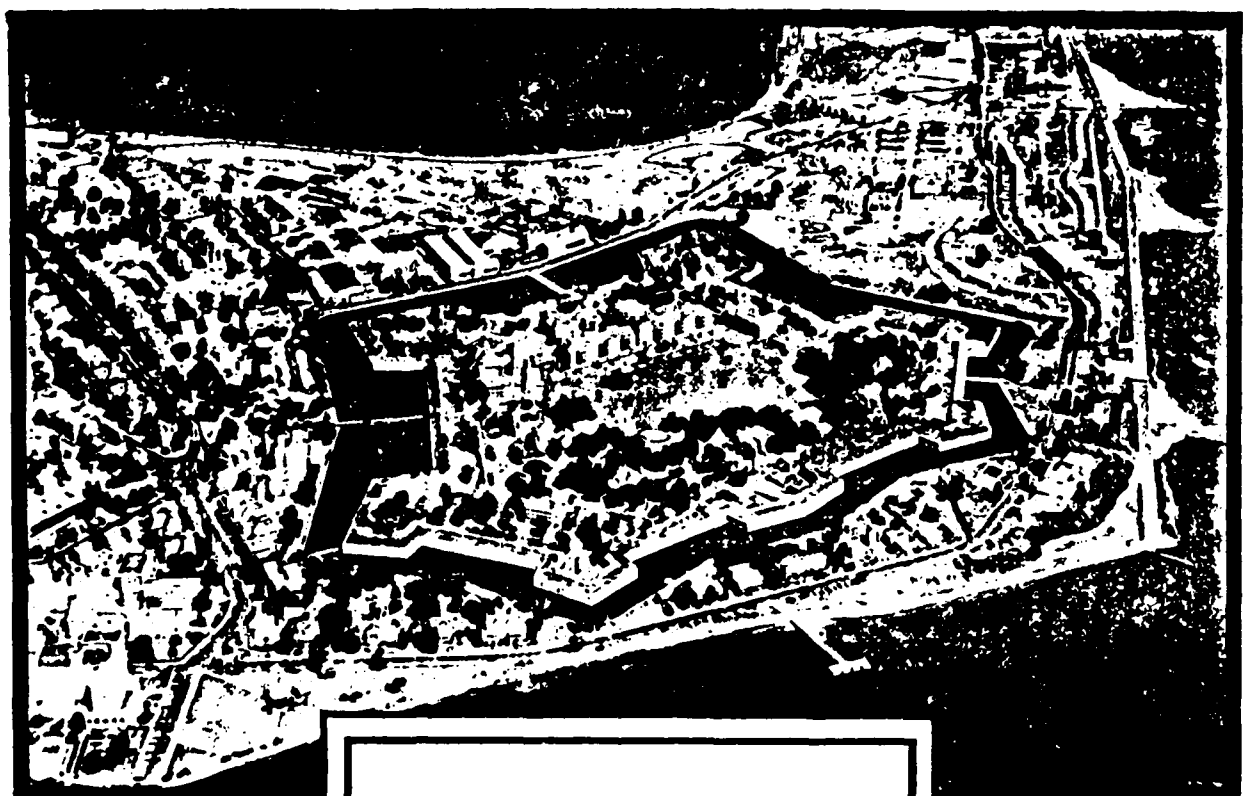
HEADQUARTERS

DATA CONTROL NUMBER _____/_____
JOB NO / PROJECT NO

UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND

FORT MONROE, VIRGINIA 23651 - 7401



Daily Report
As of 1 May 86

PREPARED BY: INFORMATION CENTER, DPFO-M

COPY ____ OF ____ COPIES

ATDP FORM 109 Replaces ATDP 109, Feb 80, which is obsolete.

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86091J03	265975	C	KATHY PITTMAN	860401	955	727-2805	161		OCSY
CCP 221 PC									
DISK DRIVE NOT READING/SCREEN NEEDS ADJUSTING									

HANDED OFF TO CINDY HITT ON 4/1.
MS HITT WORKING ON PAPERWORK AS OF 4/2.
PAPERWORK AT BUDGET. STATUS AS OF APRIL 3-4.
PAPERWORK AT CONTRACTING WAITING ON PO#. APR 7-11.
PC CARRIED TO NCR ON 4/9. USER PICKED UP EQUIPMENT ON 4/21. USER STATED COMPAQ STILL INOPERATIVE. AL G. CALLED MR. CLEMINS ON NCR AND ARRANGED FOR USER TO RETURN COMPAQ. USER TOOK COMPAQ BACK TO NCR ON 4/23. COMPAQ AT VENDOR FOR REPAIR FROM 4/24 - 5/1.

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86091SUE	1531	C	SGT TAYLOR	860401	1540	727-2775	1246		OCSY
218 PC									
CORONA TERMINAL HAS CURSOR THAT WILL NOT MOVE.									

SID IS PREPARING PAPERWORK AS OF 4/2.
SID IS STILL PREPARING PAPERWORK AS OF 4/3.
PAPERWORK IS WAITING FOR SIGNATURES AS OF 4/4.
SGT TAYLOR IS TAKING EQUIPMENT TO VENDOR IN VA BEACH FOR REPAIR AS OF 4/8.
EQUIPMENT AT VENDOR FOR REPAIRS FROM APR 9-11.
SGT TAYLOR OUT OF OFFICE AS OF 4/14. UNABLE TO OBTAIN AN UPDATE ON PROBLEM AS OF 4/14.
EQUIPMENT AT VENDOR FOR REPAIR FROM APR 16-23.
VENDOR GOING TO GIVE USER A LOANER UNTIL EQUIPMENT IS REPAIRED. VENDOR HAS TO SEND EQUIPMENT TO WASHINGTON, D.C. FOR REPAIR AS OF 4/24.
EQUIPMENT AT VENDOR FOR REPAIR FROM 4/25 - 5/1.

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 — PAGE 2

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86107A01	54037315160	C	WALTER BANKS	860417	1530	727-3004	11		DCSCD

ITC 063 PC
REMOVABLE HARD DISK IS GIVING PERSISTANT DATA READ ERRORS

PAPERWORK IN PROCESS TO OBTAIN A PO# AS OF 4/18.
PAPERWORK IN BUDGET FROM APR 21-23.
PAPERWORK AT CONTRACTING FOR PO# AS OF 4/24.
PO# FOR THIS EQUIPMENT IS DABT5R-86-P-5584.
AWAITING FOR PAPERWORK TO BE RETURNED FROM CONTRACTING AS OF 4/25.
PAPERWORK IN PROCESS FOR TRANSPORTATION. 4/28.
PAPERWORK AT BUDGET AS OF 4/29-30.
PAPERWORK AT COMMANDERS OFFICE AS OF 5/1.

86107514	REQ365	C	WALTER BANKS	860417	1430	727-3004	11		DCSCD

236 PRINTER
PRINTER WILL NOT PRINT / OCCASSIONALLY PRINTER PRINTER WILL NOT POWER UP / TRACTOR FEEDERS ARE NOT THE RIGHT FEEDERS FOR PRINTER AND COMPANY

VENDOR NOT EXPECTED UNTIL 4/18.
PAPERWORK IN BUDGET FROM APR 21-25.
PAPERWORK IN PROCESS FOR TRANSPORTATION. 4/28.
PAPERWORK AT BUDGET AS OF 4/29-30.
PAPERWORK AT COMMANDERS OFFICE AS OF 5/1.

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86111A05	319626	O	SGT ZIETAK	860421	1340	727-3716	5F		DCSCO
EPS 002 PRINTER									
PRINTER WILL NOT PRINT, PRINTS IN REVERSE.					HANDED OFF TO CINDY HITT ON 4/21. PAPERWORK AWAITING SIGNATURES FROM APRIL 22-23. PAPERWORK AT CONTRACTING FOR PO# AS OF 4/24. AL CONTACTED MR. PARNELL AND GAVE THE PO# FOR THIS EQUIPPENT. USER GOING TO TAKE ECUIPMENT TO VENDOR FOR REPAIR AS OF 4/25. USER WAS NOTIFIED ON 4/25 AT 0930 TO TAKE EQUIPMENT TO WAREHOUSE. THEY HAD NOT TAKEN IT AS OF 1430 ON 4/28. PRINTER WAS CARRIED TO VENDOR AS OF 4/30. PRINTER AT VENDOR FOR REPAIR AS OF 5/1.			
86112J01	DCST	C	CPT STOUT	860422	0805	727-3281	207		DCST
NEEDS ASSISTANCE IN ASYNC COMMUNICATION DIAL OUT PROCEDURES					TOM BURKE ON TDY. WILL WORK ON PROBLEM ON 4/28. TOM WORKING ON PROBLEM AS OF 4/28. WANG IS SCHEDULED FOR 4/30 TO LOOK AT PROBLEM. UNABLE TO CONTACT USER AS OF 5/1.				

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 OPEN CALLS AS OF 1 MAY 86 PAGE 4

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86115A03	0X02300	C	LT KINNAN	860425	1620	727-2525	59	047831	DPFO
SMS 182 PC									
NEED ROM UPGRADED					VENDOR EXPECTED ON 4/28. VENDOR EXPECTED ON 5/2.				
85115L03	R00130	U	MAJ ERSCHEN	860425	1605	727-2293	199		C DP S
IBM 004 PRINTER									
BOTTOM PIN ON PRINTER WILL NOT FIRE OUT					HANDED OFF TO CINDY HITT AS OF 04/25. PAPERWORK GOING AROUND FOR SIGNATURES, AFTER OBTAINING ALL SIGNATURES IT IS GOING TO BE SENT TO BUDGET AS OF 4/28. PAPERWORK AT BUDGET. 4/29-30. PAPERWORK AT BUDGET AS OF 5/1.			

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86115S03	0040001116	O	ROB HAMPTON	860425	830	727-3627	T181	047732	DCSY
SMS 223 TERMINAL KEYBOARD LOCKING UP					CE WILL BE OUT EARLY NEXT TO REPAIR EQUIPMENT 4/25 RICK SCHRADER OF SMS CALLED USER AND STATED THAT SOMEONE WOULD BE OUT TO FIX EQUIPMENT DURING WEEK OF APR 28 - MAY 2.				
86118503	VE9461	O	RUTH MILLER	860428	910	727-3319	5C	047822	DCSPAL
WAN 086 TERMINAL NOT ABLE TO ACCESS WSN					VENDOR EXPECTED ON 4/29. VENDOR IS HAVING USER RE-LOAD SOFTWARE AS OF 4/29. PARTS ON ORDER FROM APR 30 - MAY 1.				

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86118507	WI1584	C	MR. HATFIELD	860428	1030	727-4465	27		PAO

WAN 180 DISK DRIVE
PC CAME WITH PC-PM040-B BOARD, THIS SHOULD HAVE BEEN A LOCAL COMMUNICATION BOARD PC-PM041-AF
THIS EQUIPMENT IS ON IL-19

HANDED OFF TO AL GARNER AS OF 4/28.
AL SPOKE WITH TERRY FOOTE OF ADM AT 1315 ON 4/29 AND ARRANGEMENTS ARE BEING MADE TO SWITCH BOARDS.
WAITING FOR USER TO BRING BOARD TO AL GARNER FOR SHIPMENT AS OF 4/30.

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86118508	WI1600	C	MR. HATFIELD	860428	1015	727-4465	27	040289	PAO

WAN 180 DISK DRIVE
LETTERS ON SCREEN SEPARATE WHEN TERMINAL HAS BEEN ON FOR 3-4 MINUTES. ADM #85474

PARTS ON ORDER FROM APR 28-29.
PARTS ON ORDER FROM APR 30 - MAY 1.

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86118S11	DCSRM	C	MRS. PHILLIPS	860428	1510	727-3702	105	048845	DCSRM
NEEDS A 4230 TERMINAL INSTALLED					VENDOR NOT EXPECTED UNTIL 4729. PARTS ON ORDER FROM APR 30 - MAY 1.				
86122A01	KP8491	U	GLORIA DIGGS	860431	1030	727-2083	10	052241	DCSPAL
WAN 203 PRINTER PRINTER WILL NOT PRINTER/DISPLAYED PRINTER MALFUNCTION					VENDOR NOT EXPECTED UNTIL 572.				

DAILY OPEN CALL REPORT - DFFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 —

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86120J02	YG0155	O	MR. HAYFIELD	860430	845	727-4465	27	050848	PAO
WAN 180 PC									
SCREEN BLINKS UP AND DOWN					VENDOR NOT EXPECTED UNTIL 5/1. PARTS ON ORDER AS OF 5/1.				
86120J03	0000031019	O	SP STANGELAND	860430	910	727-2020	183	047989	OC3CO
SMS 188 CRT									
ERRATIC DISPLAY OF DATA ON TERMINAL					VENDOR EXPECTED ON 4/30. VENDOR EXPECTED ON 5/2.				

DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 — OPEN CALLS AS OF 1 MAY 86 — PAGE 9

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86120L05	DCSPAL	O	RUTH MILLER	860430	1545	727-3319	5A	52081	DC PAL
SYSTEM DOWN.					VENDOR IS CURRENTLY WORKING ON PROBLEM AS OF 04/30 PARTS ON ORDER AS OF 5/1.				

What System?
WAN OIS-140
System

86120S05	DPFO	O	ED LEMBCKE	86-143)	1445	727-3508	53		DPFO
TELEX CONTRCLLER IS DOWN					VENDOR IS EXPECTED ON 05/01. VENDOR IS MONITORING SYSTEM AS OF 5/1.				

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DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 OPEN CALLS AS OF 1 MAY 86 PAGE 11

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
86121LU2	Y1462132	C	JIM POWELL	860501	1410	727-3095	87		DPFO
ITT 1180 TERMINAL									
SCREEN HAS DOTS ALL OVER IT.					JIM POWELL WORKING ON PROBLEM AS OF 5/1.				
86121LL3	D92957	O	LINDA CLAY	860501	1425	727-3466	83	53703	DCSPAL
MAN 850 PRINTER									
PRINTER WONT PRINT CORRECTLY.					VENDOR EXPECTED ON 5/2.				

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DAILY OPEN CALL REPORT - DPFO HELP DESK

01 MAY 86 OPEN CALLS AS OF 1 MAY 86 PAGE 12

RECORD-NR	SERIAL-NR	STATUS	CALLER-NAME	CALL-DATE	CALL-TIME	CALLER-PHONE	CALLER-BLDG	DISPATCH-NR	ACTIVITY
661215v3	8611N14	C	MRS. CROSS	860501	1100	727-2418	10		DCSENGRS

TER 093 CPU
TAPE DRIVE NOT READING TAPES
VENDOR EXPECTED ON 5/2.

F-52

END OF REPORT

PROBLEM REPORT LOG

(DOIM INFORMATION CENTER USE)

DATE	CONTROL NUMBER	TIME

ACTIVITY

POC	TELEPHONE

TYPE OF PROBLEM

CICS/VS COMMUNICATIONS VM (CMS APLDI PROFS S34)

PROBLEM DESCRIPTION

TRANSACTION ID	FILE NAME

REFERRED TO

ACTION TAKEN

COMPLETION DATE	COMPLETION TIME

REPORTED BY

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FORT ORD INFORMATION CENTER

INFORMATION CENTER TROUBLE SHEET

PHONE: 4895

PERSON REPORTING
TROUBLE:_____USERID:_____

TODAY'S DATE:_____CURRENT TIME:_____

TIME TROUBLE OCCURED:_____

UNIT:_____BLDG#:_____PHONE:_____/_____

****

TROUBLE AREA
CIRCLE ONE: PC ONLINE PROFS NETWORK VIABLE

LINE NO.:_____ADDRESS:_____TERMINAL TYPE:_____

PROBLEM:_____

_____

_____.

ERROR MSG:_____.

****

PERSON RECEIVING
TROUBLE CALL:_____

TROUBLE TURNED
OVER TO:_____DATE:_____ TIME:_____

****

DATE OF SOLUTION:_____TIME OF SOLUTION:_____

SOLUTION:_____

_____

_____.

****

PROBLEM SOLVED: YES NO

INITIALS:_____.

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DISPOSITION FORM

For use of this form, see AR 340-15, the proponent agency is TAGO

REFERENCE OR OFFICE SYMBOL	SUBJECT
AFZP-IM	FORT STEWART INFORMATION CENTER Micro-computer User Group Meeting

TO SEE DISTRIBUTION FROM DOIM DATE 27 May 86 CMT 1

SFC McMillan/tas/2055

1. The Micro-computer User Group will meet in Building 1237 on Wednesday, 18 Jun 86 from 0900-1100 hours. The purpose of this meeting is information interchange, discussion of application developments, and any other items useful to the group as a whole.

2. All micro-computer users are invited to attend, and anyone wishing to have an item placed on the meeting agenda should contact Mr. Stetzer or SFC McMillan prior to 13 Jun 86.

3. Information covered at last User Group meeting is at Enclosure 2.

4. Request addresses send a representative to the Micro-computer User Group meeting on 18 Jun 86.

5. Request addresses send list of all applications presently being run on their micro-computers by 16 Jun 86. Instructions and format are at Enclosure 1.

6. POC is Mr. John Stetzer/SFC McMillan, 2055/2056.

Encls

LEWIS L. WILLIAMSON
Deputy DOIM

DISTRIBUTION:

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DPT, ATTN: Mr. Durrence
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Cdr, 1st Bde
Cdr, 2nd Bde
Cdr, 2nd Forward Spt Bn
Cdr, 4th Maint Spt Bn
Cdr, 24th Aviation Bn
Cdr, 24th S&T Bn
Cdr, 5/52nd ADA
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DEH, ATTN: Mr. Brown
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G1/AG Sidpers, ATTN: CPT Snead
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Cdr, 2/21st Inf Bn
Cdr, 2/34th Inf Bn
Cdr, 2/70th AR Bn
Cdr, 1/13th FA Bn
Cdr, 2/9th Cav Sqdn
Cdr, 1/35th FA Bn
Cdr, HHB, 2/3th FA Bn
Cdr, 24th Sig Bn
DPCA, Education Br, ATTN: Mr. Nalisnick
FISO, ATTN: MAJ Dickinson/1LT Conn
IG, ATTN: SP4 Vanderventer
Cdr, 3rd Engineer Bn
Cdr, 124th MI Bn
Staff Chaplain
Post Library, ATTN: Mr. Boyce
Safety Office, ATTN: Mr. McCullough
SJA, ATTN: Ms. Martin/Ms. Weaver
DIO, ATTN: Ms. Bailey/Ms. Miller
Cdr, 92nd Engineer
ICM, ATTN: Ms. Norris/Ms. Cooksey
DMMC, ATTN: MAJ Southard
Cdr, 24th CAB
Cdr, Victory Bde
Cdr, HHD 260th QM
Cdr, 1/75th Inf Bn
Cdr, 2/9th Cav

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED

CATALOG NUMBER: (Leave blank, it will be filled in by AMO)

NAME OF SYSTEM: (User fills in the name of his program/application)

OPERATING SYSTEM: (User indicates software requirements to run the program/application, ie., APPLE PASCAL, APPLE-DOS, CPM)

AUTHOR: (Claim credit for what you do)

ABSTRACT: This is where you give a short description of what your program/application will do. It does not have to be a book, but it should give enough information so that another user c evaluate your application.

USES/USERS: Who can use your program, ie., S1'S, S4'S; Identify who yo think can benefit from your efforts.

NUMBER OF DISKETTS: How many disks are required to run your system.

HARDWARE REQUIREMENTS: What computer will your system run on
How many disk drives are required
Is printer required
Are there any other hardware requirements

acl

MICROCOMPUTER PROGRAM/APPLICATION

CATALOG NUMBER:

NAME OF SYSTEM:

OPERATING SYSTEM:

AUTHOR:

ABSTRACT:

USES/USERS:

NUMBER OF DISKETTS:

HARDWARE REQUIREMENTS:

Encl 1

AFZP-IMA-I 22 May 1986

MEMORANDUM FOR RECORD

Subject: Micro-computer User Group Meeting - May 86

1. Date: 23 Apr 86.

2. Time: 0900-1100 hours.

3. Purpose: To advise micro-computer users at Ft Stewart and Hunter AAF of the services available at their local education centers and inform users of latest hardware and software changes.

4. Speakers: Mr. Stetzer
Mr. Nalisnick
SFC McMillan

5. Attendees: See Attached Attendees List.

6. Topics Covered: See Attached Agenda.

7. Discussion: Users were advised that on every third Wednesday each month, a user group meeting will be held from 0900-1100 hours in Bldg 1237, unless otherwise notified. This time is set aside to keep the micro-computer users informed of all changes that may affect them, to get direct input from the users and discuss any problem they may have.

If the new zenith system is available, it will be displayed at the next meeting, 18 Jun 86. Mr. Nalisnick covered the classes available for military and civilian employees at Ft Stewart and Hunter AAF. He covered courses such as Computer Literacy, classes on the Apple Computers, IBM and IBM compatibles. The majority of these classes are at no expense to individual or duty sections. For more information, Mr. Nalisnick maybe reached at 8328/8329.

The Apple computers located in the battalions were not purchased to be utilized in a field environment.* All other APPLES were installed for Garrison use only. They have low tolerance to power surges and constant changes in voltage levels. If used in the field and computer is damaged, a report of survey will be conducted. The individual responsible will be charged. Users can perform minor preventive maintenance on computers such as wiping off equipment, cleaning the monitor, checking cables for proper connections or breaks. Remember, a little preventive maintenance goes a long way.

*With exceptions of the STPDS System for the Command Group and Staff.

This office does not support breaking the copyright laws, in reference to copying software. There is a public domain library with over 300 disk of software maintained here for users of IBM's and clones of IBM's. This software can be copied. There are some excellent programs in this library and are available for the micro-computer users. We only have five disk in our Apple library. Any users with Public Domain Software that wish to contribute to this library is encouraged to do so. There were no pressing problems discussed at the meeting.

HUBERT MCMILLIAN
Plans NCOIC, SFC

MICRO-COMPUTER USER GROUP MEETING AGENDA

1.	Opening/Old and New Business	Mr. Stetzer
2.	Services Provided by Education Center	Mr. Nalisnick
3.	Preventive Maintenance/Computer Applications	SFC McMillan
4.	Software Piracy	Mr. Stetzer
5.	Questions and Answers	Mr. Stetzer Mr. Nalisnick SFC McMillan

FORT MONROE

BASIC FUNCTIONAL REQUIREMENTS FOR AUTOMATION SUPPORT

POC NAME: _____ PHONE: _____
OFFICE SYMBOL: _____ BLDG: _____
TOTAL NUMBER OF PERSONNEL IN OFFICE: _____
INTERVIEW DATE: _____

1. Is the Information Systems Officer (ISO) of your staff office aware of this action? /__/yes /__/no

2. What is the number of personnel projected to use this equipment? _____
How many total workstation hours will be needed each day? _____

3. Generally, what manual function needs to be automated or what automated function needs to be upgraded as a result of this requirements definition? For example, automate a reporting process or upgrade a current system to include graphics capability or more workstations.

_____

_____

4. What is the source of your information?

a. /__/In-house or /__/Remote Computer System? If latter, on what medium is the data received?

(1) /__/on tape
(2) /__/on floppy diskette
(3) /__/telecommunicated
(4) /__/other (specify: _____)

b. Hard Copy Created /__/In-House, or from /__/Outside Agency? If latter, provide agency name, POC and telephone number:

(1) Agency Name: _____
(2) POC Name: _____
(3) POC Phone: _____

c. /__/To Be Manually Input

5. Identify the In-house or Remote computer system indicated in item 4a. above, if applicable.

a. Where is this system located? _____

b. What is the name of the data processing system or software packages you wish to access on this system? _____

_____

_____

c. Have you received approval from the proponent of this system to access their system? /__/yes /__/no If yes, please identify the approving authority:

(1) Name:_____
(2) Phone:_____

d. Whom may we contact for technical information on this system?

(1) Name:_____
(2) Phone:_____

6. If the information currently exists, in what format will it be received?

a. /__/data file or print file
b. /__/text (word processing document)
c. /__/graph/chart
d. /__/image (picture)
e. /__/voice
f. /__/electronic mail

7. What will you need to do with this information?

a. /__/Display on Terminal

b. /__/Download for Processing/Manipulation from Remote system specified in item 4a. above to In-house system.

c. /__/ Process/Manipulate (either on Remote or In-house system):

(1) /__/word processing/text editing
(2) /__/electronic spreadsheet
(3) /__/statistical analysis
(4) /__/records management/database management
(5) /__/graphics
(6) /__/project management
(6) /__/other (specify:_____)

d. /__/Screen Print

e. /__/Generate Formatted Hard Copy Output, OR, /__/Generate Formatted Automated Output. If automated, what will be the output medium?

(1) /__/tape
(2) /__/floppy diskette
(3) /__/microfiche
(4) /__/to be telecommunicated
(5) /__/other (specify:_____)

f. Output will include:

(1) /__/data files or print files
(2) /__/text (word processing document)
(3) /__/graphics/charts
(4) /__/images (pictures)
(5) /__/voice
(6) /__/electronic mail
(7) /__/combination of the above

g. Do you envision any of these requirements needing new programming support? /__/yes /__/no

8. How will this information be kept after processing?

a. /__/not needed/deleted
b. /__/stored on In-House computer system
c. /__/transferred to Remote system

9. Identify the In-house or Remote computer system indicated in item 8b. or 8c. above.

a. Where is this system located?_____

b. What is the name of the data processing system or software packages you wish to access on this system?_____
_____
_____

c. Have you received approval from the proponent of this system to send data to that system? /__/yes /__/no If yes, please identify the approving authority:

(1) Name:_____
(2) Phone:_____

d. Whom may we contact for technical information on this system?

(1) Name:_____
(2) Phone:_____

10. Information classification:

a. Is any information to be processed classified? /__/yes /__/no
b. Is any information Personal In Nature? /__/yes /__/no

11. How much money do you anticipate spending for hardware and software to satisfy this requirement? $_____ Does your activity have access to the estimated funds? /__/yes /__/no If yes, what type? /__/OMA /__/OPA

12. What automation equipment do you currently have in your office or have access to?

a. /__/microcomputers (specify quantity and type:_____
_____
b. /__/minicomputers (specify quantity and type:_____
_____
c. /__/mainframes (specify quantity and type of remote terminals:_____
_____
_____

13. What software capabilities do you already have on your micro's or mini' listed in 13a. or 13b. above?

a. /__/word processing/text editing
b. /__/electronic spreadsheet
c. /__/statistical analysis
d. /__/records management/database management
e. /__/graphics
f. /__/project management
g. /__/other (specify:_____)

14. What software are you accessing on the mainframes listed in 12c. above?

a. /__/Time Sharing Option (TSO)
b. /__/Easy Retrieval and Data Manipulator (ERDM)
c. /__/Statistical Analysis System (SAS)
d. /__/other (specify:_____)

15. What automation support services do you currently receive?

a. /__/hardcopy output
b. /__/microfiche output
c. /__/Optical Character Reader (OCR) or Optical Mark Reader (OMR)
d. /__/AUTODIN support
e. /__/time-sharing service
f. /__/outer-agency service

16. Are there plans for relocation of your office in the next 2 years?_____
If yes:

a. Where will your office move to?_____
b. Will the automation equipment you currently have in your office or have access to move with you?_____

17. Does this requirement identify a need for "systems integration"? A common example of a systems integration requirement is when there are multiple computer systems needing on-line access to a database resident on only one,
/__/yes /__/no

18. Do you have any known preferences of hardware or software that might satisfy your requirement?_____

19. System life (Estimate the length of time hardware will be used)_____

20. Additional comments:_____

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CAPABILITY REQUIREMENT

1. Date of Request:

2. Service Requirement Date: Date the resource/service must be available for use.

3. Requesting Organization, Location, Point of Contact, and Telephone Number.

4. Type of Requirement: Identify the requirement(s) the requested resource or service will support (i.e. training, mobilization, administration); its current information system. (Example: Manual, Partially Automated, or Automated); and the type of service requested, such as processing, data entry.

5. Current Procedures: Explain, in your own words:

a. What is being accomplished that needs to be automated.

b. Current procedures.

c. The impact of not automating.

6. Current Automation Resources: If the request is not for automation or you do not have ADPE or software, omit this section.

a. List software and Automated Data Processing Equipment (ADPE), including personal computers and word processors. Include brand names, model, serial number, and date of purchase, if known.

b. Explain how current ADPE or software is utilized.

c. Provide pertinent comments about existing automated systems downtime (i.e., times system was inoperable as a result of routine or unplanned maintenance). Include manhours and manyears spent on system using estimated averages by week, month, or year, as appropriate.

d. Identify equipment to be turned in, if the project is approved

7. Requirement: Explain what information service or support is needed and why. If equipment is being requested, explain what capabilities must be available. Do not list specific items, brands, makes, or models of equipment desired. Explain why the capability is needed, including the benefit of implementing the proposed procedures and how this compares to current procedures. Use positive statements to support the requirements. Provide pertinent information and compelling reasons for approving the requested capabilities.

a. Show a cost comparison between the existing procedures and proposed procedures (cost versus benefits).

b. Describe how proposed procedures will provide increased productivity.

c. If the proposed procedures involves expansion, modernization, replacement, or increased capability of existing resources or services, identify what needs to be changed and why.

8. Security: a. Provide the highest classification level for the input (data) and output (reports).

b. Identify who will be able to access the information for query or change.

c. State whether the Privacy Act of 1974, or the Freedom of Information Act applies.

9. Compatibility: If the proposed procedures must be compatible with existing resources or services, explain how and with what equipment or systems it must be compatible. If the request is for a stand-alone system so state.

10. Information Sharing: Identify the users of the information generated from the system, including those internal and external to your organization. Explain how information sharing vertically (up and down the chain of command), and horizontally (across the installation) will occur.

11. Communications Requirements: Identify all present and future external communications capabilities, required or desired, for the proposed system. This includes, but is not limited to:

a. Additional telephone instruments or lines.

b. FTS or similar service access.

c. Remote or hardwire communications with the installation host processor or other processors located at a remote site. Include the exact location of the processor.

12. Engineering Requirements: Identify all engineering services required such as installation of air conditioning, wall plugs, lighting, and other related construction.

13. Remarks: Include additional information such as:

a. The need for economic analysis.

b. Specific mobilization requirements this resource or service will support.

c. Whether or not this action is contained in the organizational IMP.

14. Funding: Identify how it is proposed to fund the project.

15. Signature: Request must be signed by the commander or director of the requesting organization, such as the G3, G2, AG, or CofS for MSC.

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FORT MONROE

IMPLEMENTATION PLAN
FOR
PHYSICAL INFORMATION CENTER
CUSTOMER SUPPORT DIVISION
DATA PROCESSING FIELD OFFICE, FT MONROE (DPFO-M)

1. PURPOSE. To describe the Physical Information Center organization that will be part of the Customer Support Division of the DPFO-M and the implementation thereof.

2. CONCEPT. The Physical Information Center concept can be stated as a physical organization for providing end-user support for the headquarters user. The Center will have personnel available for consultation and demonstration in the areas of microcomputers, minicomputers and mainframe services. The functions that are performed are consultation, technical support, and user assistance. The Center will support standard hardware, software and communications products. The Center will provide tools and techniques that will allow users to retrieve, analyze, manipulate, and present their data more effectively without being required to become computer experts. These tools and techniques are provided through a variety of services. Activities offered and supported by ICs in industry and other government agencies are summarized in the chart attached entitled "IC SERVICES." The IC services available to users at this time are marked with an "x". More detailed discussion of functions and supported services follows.

3. MISSION STATEMENT.

a. To improve personnel productivity by making methods available for individuals to reduce clerical effort.

b. To develop data manipulation capabilities.

c. To help with the building of databases of information that can help clerical, action officer, and management personnel to use computer methods to enhance overall job performance.

4. LOCATION. The Center is located on the Second Floor of Building 117. The Center will be open during normal duty hours. The telephone number for information is 3055.

5. FUNCTIONS.

a. User Assistance. Numerous services are provided by the Physical Information Center and are designed to help the end-user of microcomputer, minicomputer, communications, and mainframe products. Standard hardware and software are located in the Center for demonstration and assistance to users. Products such as the IBM Professional Office System (PROFS), the Customer Retrieval System (CRS), and Applied Data Research (ADR) database products such as DATAQUERY will be available for customer assistance and demonstrations.

Microcomputers are located in the Center that can be utilized by customers to try software packages or peripherals, such as printers, plotters or modems. Terminals/PCs will be available to link customers to minicomputers and to the mainframes to demonstrate products and gain familiarity with those systems. Detailed listings of supported hardware and software products are attached. As projected personnel become available, the sponsorship of minicomputer, microcomputer and software user groups will be provided. Also, media and file conversion services will be provided as equipment and personnel become available.

(1) Walk-In Assistance. The Center is available to customers for assistance during normal duty hours. Customers can come to the Center and try different types of equipment and software that will be supported at HQ TRADOC and Ft Monroe. There will be single-user microcomputers, multi-user microcomputers, microcomputers attached to minicomputers, VIABLE terminals, microcomputers attached to a Local Area Network, and all the associated peripherals and supported software available to the user when he comes to the Center.

(2) User Training Determination. Center personnel will advise users when formal training is necessary for hardware and software. Center personnel can advise customers how to arrange for needed training and can inform customers what training is available to satisfy their particular needs. The formal training is available from DPFO-M Intern Training Center.

b. Technical Support. Personnel will be available to support existing hardware, software, and communications services for end-users. Technical personnel will be available to provide product briefings on hardware, software, and communications. Center personnel will provide technical documentation and will be available to troubleshoot customer problems with all supported hardware, software, and communications services. Assistance with product documentation will be provided, along with the writing of salient characteristics.

c. Consultant Services. Personnel are available for consultation with end-users and other technical personnel to provide configurations and problem-solving assistance with hardware, software, and communications that are supported. Standards are developed for supported hardware, software, and communications.

d. Vendor Demonstrations. Demonstrations of products which are already in the inventory at HQ TRADOC and Ft Monroe, or that are being considered for addition to the inventory will be demonstrated to interested parties in the briefing area of the Physical Information Center. Advance schedules of these vendor demonstrations will be sent to ISOs and PROFS users so that interested users can become familiar with products and services that are available from vendors.

e. Help Desk Support. Personnel are available to operate Help Desk facility in support of the headquarters users. The Help Desk provides the user a single point of contact for all problem reporting, problem tracking until resolution, and information inquiries. The Help Desk maintains an online database and generates daily open call reports and weekly activity reports by DCS/Activity.

6 STAFFING. The Center will be staffed by government and contractor personnel. Personnel will be physically located in the Center during normal duty hours to arrange vendor and technical briefings and demonstrations and to personally demonstrate supported hardware, software, and communications products to end-user personnel. These personnel also will lend copies of software, utilities, and reference materials to customers as well as maintain software tutorials. Other Information Center personnel will be available for more indepth microcomputer and minicomputer hardware, software and communications consultation, product demonstration, and mainframe interactive software consultation and demonstration. Additional tasks, that will be picked up as personnel come onboard and equipment is procured, are the sponsoring of user groups, media/file conversion, and further demonstration and consultation for newly-acquired equipment and software.

7. NECESSARY ACTIONS.

a. Prepare job descriptions for Center personnel. Descriptions are necessary for GS-5, GS-7, GS-9, GS-11, and GS-12.

b. Have job descriptions approved and graded-out by the PCPSA.

c. Recruit necessary personnel for Center staffing.

d. Determine necessary training needs for Center personnel.

e. Make arrangements for proper training.

f. Identify additional hardware, software, firmware, furniture and supplies needed for Center.

g. Prepare documentation for approval and procurement of needed items.

h. Transition Help Desk operation to the contractor supplied personnel.

8. ATTACHMENTS.

a. List of Supported Hardware.

b. List of Supported Software.

c. List of Standards.

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HARDWARE SUPPORTED BY INFORMATION CENTER

Wang VS Minicomputer

Wang OIS WP System

Motorola IV Phase Minicomputer

Wang Professional Computer

Intel 310 Multiuser Microcomputer

Wyse Personal Computer

COMPAQ Portable Computer

GRiDCase Laptop Computer

IBM Personal Computer

Texas Instruments Silent 700 Portable Terminal

Bridge, Inc. LAN - Ethernet with 3COM Interface to host

Houston Instruments Plotter

C. Itoh F-10 Letter Quality Printer

Smith Corona D-300 Dot Matrix Printer

Epson FX80 Dot Matrix Printer

Epson FX100 Dot Matrix Printer

Racal Vadic VA 212 Modems

IBM 4800bps Diagnostic Modems

Gandalf LDS 309 Short Haul Modems

Hayes 1200/2400 Smart Modems

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SOFTWARE USED ON WANG PCs

1.	LOTUS 1-2-3	- SPREADSHEET
2.	ADVANCE WP v.2	- WORD PROCESSING - GENERAL
3.	dBASE II	- DATABASE MANAGEMENT - TUTORIALS
4.	CONDOR3 SERIES 20	- DATABASE MANAGEMENT - GENERAL
5.	TRAJECTORIES	- STATISTICAL PROCESSING SYSTEM
6.	SYSTEM SOFTWARE DISKETTE	- WANG MENU ENHANCED MS-DOS OPERATING SYSTEM, PLUS INTERACTIVE BASIC
7.	PC WORD	- WORD PROCESSING - GENERAL
8.	THE AUTHOR	- EDUCATIONAL ADMINISTRATION - AUTHORING SYSTEMS
9.	PEACHTREE PERSONAL CALENDAR	- SCHEDULING - CALENDARING

SOFTWARE USED ON COMPAQ PORTABLE, INTEL PC, GRID LAP TOP, AND OTHER IBM COMPATIBLE PCS

1.	dBASE II	- DATABASE MANAGEMENT - GENERAL
2.	dBASE III	- DATABASE MANAGEMENT - GENERAL
3.	MULTIMATE PROFESSIONAL	- WORD PROCESING - GENERAL
4.	ENNERGRAPHICS W/PLOT	- GRAPHICS - GENERAL
5.	HARVARD PROJECT MANAGER	- GENERAL MANAGEMENT - PROJECT MANAGEMENT
6.	DOS 2.1 AND BASIC LANGUAGE EXTENSION	- OPERATING SYSTEM - UTILITY PROGRAMS GENERAL
7.	FRAMEWORK II	- DATABASE MANAGEMENT - GENERAL
8.	SIDEKICK	- PROGRAMMING TOOLS - UTILITIES
9.	BPS BUSINESS GRAPHICS	- GRAPHICS - BUSINESS
10.	CHARTMASTER	- GRAPHICS - BUSINESS
11.	SIGNMASTER	- GRAPHICS - BUSINESS
12.	SIDEWAYS	- SPREADSHEETS - GENERAL
13.	SMART SOFTWARE SYSTEM	- GRAPHICS - GENERAL
14.	NORTON UTILITIES	- OPERATING SYSTEM UTILITY RETRIEVAL PROGRAMS DISK UTILITIES
15.	PFS:REPORT	- DATABASE MANAGEMENT - GENERAL
16.	PFS:FILE	- DATABASE MANAGEMENT - GENERAL
17.	LEADING EDGE W/P	- WORD PROCESSING - GENERAL
18.	TK SOLVER	- GENERAL MANAGEMENT - PROBLEM SOLVING - EQUATIONS
19.	MULTIPLAN	- SPREADSHEETS - GENERAL
20.	TRAJECTORIES	- STATISTICAL PROCESSING SYSTEM
21.	THE AUTHOR PLUS	- EDUCATIONAL ADMINISTRATION - AUTHORING SYSTEM

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List of Standards

1. The following have been approved for standardization by DCSIM:

a. MS-DOS Version 2.0 or higher for single user microcomputers

b. XENIX Operating System for multiple user microcomputers

2. The following items have been submitted to DCSIM for approval:

a. The VS Data Exchange package to link the Wang PCs with the Wang VSs and the RJETOWNG, RJETOIBM, RJEIN and RJEOUT packages to link the IBM mainframe with Wang VS minicomputers.

b. Electronic Spreadsheet packages - Lotus 1-2-3 and Multiplan

c. Data Base Management packages - dBASE III and R:base Series 5000

d. Word Processing packages - MultiMate and Wang Advanced WP

e. Business Graphics packages - Chartmaster, SignMaster, DiagramMaster and PC Storyboard

f. Communications packages - CrossTalk, AST SNA and DCA IRMA 3278/3279 emulation

g. Data Base Management packages for the Wang micro - Wang PC Database and dBASE II

h. Business Graphics for the Wang micro - Wang PC Business Graphics

i. Communications for Wang micro - Wang Local Communications Option, PC 3276 SNA/SDLC Emulation, VT100 Emulation and PC Asynchronous Communications Option

j. Standard peripherals for the Wang micro from the ADM contract:

(1) Hard Disk - CLIN 0007AA, Wang PC-PM021 10 MB internal fixed disk and CLIN 0007AB, Wang PC-PM022 30 MB internal fixed disk

(2) Dot Matrix Printer - CLIN 009AB, Wang PC-PM010, 10" carriage/80 cps and CLIN 009BB, Wang PC-PM016, 15" carriage/160 cps

(3) Letter Quality Printer - CLIN 0010BB, Wang PC-PM012/20 cps and CLIN 0010BC, Wang PC-PM014/55 cps

k. Standard peripherals for Wyse 1100 PCs purchased from the SMS contract:

(1) Dot Matrix Printer - CLIN 0007BC, Smith Corona D-300/160 cps and CLIN 0007BD, C. Itoh 3500/350 cps

(2) Letter Quality Printer - CLIN 0008BD, C. Itoh F10-40/40 cps and CLIN 0008BE, C. Itoh F10-55/55 cps

(3) Plotter - CLIN 0010AC, Houston Instrument DMP-29 8 pen plotter

l. Standard peripherals for competitively purchased MS-DOS based CPUs are:

(1) Dot Matrix Printer - Epson FX-80 10" carriage/160 cps and Epson FX-100 15" carriage/160 cps

(2) Letter Quality Printer - C. Itoh F10-40/40 cps, C. Itoh F10-55/55 cps, Hewlett Packard ThinkJet Printer/150 cps, Hewlett Packard LaserJet Printer/8-20 seconds per page and IBM Colorjet Printer/200 cps

(3) Plotter - Hewlett Packard 74XXA Series, Hewlett Packard 7550A and Houston Instruments DMP-29

(4) Modem - Hayes Smartmodem 1200, Hayes Smartmodem 2400 and Racal-Vadic VA212

m. Standard for Electronic Document Distribution and Coordination - Document Interchange Architecture and Document Content Architecture (DIA/DCA)

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CUSTOMER SUPPORT DIVISION
STANDING OPERATING PROCEDURES
CONTENTS

CHAPTER II OFFICE AUTOMATION AND MANAGEMENT BRANCH (OAMB)

CHAPTER III CUSTOMER SUPPORT DIVISION POLICY

DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPM 501; the proponent agency is DCSPER

1. JOB NUMBER: 84-140

2. INSTALLATION OR HEADQUARTERS OFFICE: Fort Stewart, Georgia

3. ORGANIZATIONAL LOCATION (Complete on organization copy only): Automation Management Office

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE: USOPM PCS for GS-334, Dec 80.

5. TITLE: Computer Specialist

6. PAY SCHEDULE	7. OCC CODE	8. GRADE
GS	334	11

9. FAIR LABOR STANDARDS ACT: ☒ EXEMPT ☐ NONEXEMPT

10. COMP LEVEL: 6

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Billy A. Wall — BILLY A. WALL (Signature)

8 Dec 83 (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

✓ Lewis C. Williamson — (Signature of Approving Supervisor)

✓ 6 Dec 1983 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

Margaret A. Hicks — MARGARET A. HICKS (Classification Specialist)

8 Dec 83 (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

Duties:

This position serves as the microcomputer specialist for the Automation Management Office (AMO), performing a wide variety of duties involving the management of the Fort Stewart microcomputer (micro) program. The program is established to provide advice, training, and assistance to micro users, as requested and on a scheduled basis; and to monitor users to ensure adherence to applicable policies, procedures, and regulations.

-Provides individual and group microcomputer training, advice and assistance as requested and on a scheduled basis. Trains in micro operation, maintenance, care, coding, programing, data management systems, problem resolution and application development. 55%

-Maintains and develops the microcomputer program. Studies current micro technology to maintain knowledgeable in the latest hardware and software developments. Corresponds with and reviews micro programs at other installations and in commercial industry for possible adoption of applications that could benefit Fort Stewart micro users. Prepares recurring and special progress reports and reviews as directed by higher headquarters. Provides short and long range plans and supporting cost information to the AMO budget analyst for budget preparation. 15%

DA, FORM 1 JUN 76 374 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED

-Monitors the microcomputer program to ensure that equipment and software are being used and function properly. Acts as liaison between micro users and commercial vendors for software resolution or replacement. As the Contracting Officers' Technical Representative for micro actions, insures that micro vendors adhere to contract specifications. 15

-Aids, assists, and advises current and potential Division/installation microcomputer users with selection of the appropriate hardware and software and preparation of related contracts. Conducts technical studies; and develops contract specifications, statements of work, inspection standards, performance standards, minimum requirements and maintenance standards for microcomputer applications, software or services. Develops data based on personal knowledge of technical requirements and resources required to achieve desired objectives, and prepares necessary supporting documentation. Assists micro users with justification documentation and reviews documentation in order to recommend approval/disapproval at the installation level prior to submission to higher headquarters. Staffs new proposals through supervisor to CofS and higher headquarters for recommendation of approval of new or additional microcomputer hardware/software or services. 10

-Coordinates, schedules and monitors meetings and events connected with locally or commercially developed micro applications. Hosts and conducts monthly micro user group meetings to resolve common problems, exchange information and ideas, and review new micro applications and data management systems. Recommends possible extensions of developed applications between users. 5

Performs other duties as assigned.

Factor 1. Knowledge Required by the Position - Level 1-7 -- 1250 Points

-In depth knowledge of microcomputer technology and the design, function and approach of micro systems applications in order to assist the user in selecting the appropriate micro equipment/software.

-Detailed and specific knowledge of micro languages (COBOL, Fortran, Basic, Pascal) and programing techniques in order to develop and maintain applications.

-Knowledge of technical study techniques to determine and analyze benefits and products desired; and the specific inputs, outputs, equipment and software required to accomplish objectives.

-Knowledge of Contracting Officers' Technical Representative functions and ability to develop required specifications, statements of work, inspection standards, performance standards, minimum requirements, and maintenance standards for micro applications.

-Practical knowledge of training methods in order to train micro users how to use programing language techniques and data management systems, and how to develop required documentation for requested micro systems.

Factor 2. Supervisory Controls - Level 2-4 -- 450 Points

The supervisor assigns priorities, objectives to be achieved and special problems to be solved. The supervisor is available for advice and assistance as necessary but the employee, as the installation technical specialist in microcomputers, is relied upon to plan and carry out the work independently, keeping the supervisor advised of progress and only unusual complications or matters of a far reaching, policy making nature. The employee carries out studies, resolves problems, coordinates work with others as necessary, interprets policy, and makes technical decisions regarding use of microcomputers. Completed work is reviewed for effectiveness in meeting requirements and achieving desired results.

Factor 3. Guidelines - Level 3-4 -- 450 Points

Guidelines for managing the microcomputer program consist of DA, FORSCOM, installation, and AMO policies and objectives regarding projects, equipment and software. This guidance is general in nature with little specificity regarding the approach to be followed with each project.

Guidelines for use of and programing on microcomputers are supplied by the vendors/ contractors. The majority of micros have available, user-friendly software for assistance in equipment use and programing. When assisting users with programing, judgment is required in gathering sufficient data, devising system designs, adapting techniques, developing program specifications and detailed logic, and selecting hardware/software.

Factor 4. Complexity - Level 4-4 -- 225 Points

The work involves the management of the microcomputer program, providing advice and assistance to other installation activities on selection justification, use, programing and problem resolution concerning microcomputers. The microcomputer field is constantly changing and the position performs substantial analyses of needs and keeps up with the changes in order to recommend the most appropriate hardware and software. Considerable data is analyzed, including a review of micros used at other installations and packages offered by the vendors. Consideration is also given to probable future changes that would impact on micro selection because projects extend from planning, to acquisition, to regular meetings with micro users to provide advice and assistance.

Factor 5. Scope and Effect - Level 5-3 -- 150 Points

The purpose of the work is to provide training, guidance, advice, and assistance to micro users at Fort Stewart. The work affects the performance/adequacy of Division/ garrison activities using microcomputers.

Factor 6. Personal Contacts - Level 6-3 -- 60 Points

Personal contacts are with other AMO personnel; other installation activities; micro users; micro specialists/experts at other installations and agencies; and vendor/ contractor personnel.

Factor 7. Purpose of Contacts - Level 7-2 -- 50 Points

Contacts are to advise and assist micro users; to exchange factual information with other installation activities and with other micro specialists/experts; and to discuss and resolve vendor/contract specifications and problems.

Factor 8. Physical Demands - Level 8-1 -- 5 Points

The work is primarily sedentary with some minor physical activity while traveling to and from locations of micro computers. Micro users may be on tactical maneuvers in the field.

Factor 9. Work Environment - Level 9-1 -- 5 Points

Work is primarily performed in an office setting. There is some work in the field to assist micro users when on exercises, conducting tactical maneuvers. There are no special safety precautions required.

TOTAL POINTS: 2645

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FORT MONROE

MAJOR DUTIES

Serves as a member of a team of specialists who are the HQ TRADOC authorities for minicomputer, microcomputer and data communications technologies.

1. Provides support for all minicomputer and microcomputer systems located at Ft Monroe. Installs, tests, evaluates, validates and writes user guides for minicomputer and microcomputer hardware, software and firmware. Performs problem determination and resolution in all areas of minicomputer and microcomputer technology. Demonstrates hardware and software standard products to users. Analyzes functional requirements providing hardware, software and procedural solutions in order to fully support and meet the requirements. (40%)

2. Consults with users to determine optimum solutions for requirements that can be solved by minicomputers and microcomputers. Recommends standards for hardware, software, graphics, communications and peripherals in the minicomputer and microcomputer areas. Procures hardware, software, communications and firmware for the Information Center. Trains user personnel on new equipment. Evaluates and prepares critiques on systems and equipment to be utilized. (30%)

3. Writes technical specifications for hardware, software, communications, and firmware to be acquired. Works with off-the-shelf applications. Provides end user support. Tests selected vendors' packages for adherence to standards. Trains personnel in specialized functions; attends briefings, meetings, classes, conferences and seminars on all types of hardware and software. Maintains state-of-the-art knowledge of the latest advances in computer hardware and software in the minicomputer and microcomputer areas. Prepares training materials, briefings, standards and procedures for areas of expertise. Schedules demonstrations of hardware, software, communications, and firmware products from vendors and coordinates them with HQ elements. (30%)

- Performs other duties as assigned.

FACTOR 1. KNOWLEDGE REQUIRED BY THE POSITION.

Knowledge of AR 18-1 and associated technical bulletins and TRADOC supplements thereto is required. Procurement regulations and procedures are used frequently when ordering hardware and software for minicomputers. Good investigative and analytical skills are required to evaluate and select the proper hardware and software from hundreds of competing vendors who make exaggerated claims, as a matter of course, regarding their latest technical advances. Knowledge of all major manufacturers' products is required when evaluating and benchmarking products for procurement by HQ TRADOC. Superior communication and instructional skills are required to gain approval of systems and demonstrate to end users.

FACTOR 2. SUPERVISORY CONTROLS.

The supervisor establishes the employee's area of responsibility and sets priorities and deadlines for major projects. The employee plans and carries out the assignments, establishes controls as necessary, and interprets equipment regulations. The supervisor is alerted to problems such as those that would delay project accomplishment or, in normal work environment, situations that will likely involve other offices. Completed work is reviewed for technical soundness and conformity to policy requirements.

FACTOR 3. GUIDELINES.

Guidelines consist of instructions, agency regulations and directives, contracts, procurement and budget procedures, and precedents. Precedents and regulations typically are applicable only in that they provide data on coordination required and sources utilized in previous projects. The employee uses judgment in interpreting regulations and adapting precedent methodology to the problem at hand. Data in areas such as workload and utilization usually must be obtained by interview of user personnel.

FACTOR 4. COMPLEXITY.

The assignment deals with state-of-the-art technology associated with the computer industry. There is a frequent requirement for developing new information and specifications on proposed equipment. Quite often this information

is required quickly and the employee must be capable of assimilating large amounts of technical material in order to supply accurate information. The equipment being evaluated typically is not untried; it is already in use in the private sector, or in other agencies. The software being evaluated is frequently not being utilized in the manner desired, requiring the employee to independently evaluate and recommend multiple software packages.

FACTOR 5. SCOPE AND EFFECT.

The work involves treating a variety of problems and occasionally developing new criteria for procuring and demonstrating equipment. Accomplishment of the work primarily affects the operation of computer equipment and systems at HQ TRADOC and Ft Monroe.

FACTOR 6. PERSONAL CONTACTS.

Contacts are with employees within the division and users, procurement, budget, personnel and computer workers at local and higher agency levels, and a number of vendor representatives.

FACTOR 7. PURPOSE OF CONTACTS.

The purposes of contacts are to train command personnel, to advise on availability of the most feasible hardware and software, to obtain vendors' offerings of the latest technology, to exchange technical information, and to solve problems.

FACTOR 8. PHYSICAL DEMANDS.

Physical demands extend only to normal office environment.

FACTOR 9. WORK ENVIRONMENT.

The work is performed in an office setting. However, the incumbent goes out to the user offices to assist in problem resolution in inclement weather.

FORT MONROE

MAJOR DUTIES

On an independent assignment as a member of a team, serves as technical specialist for the utilization of database software. Participates in planning, designing, developing, and implementing ADR DATACOM/DB databases created on the DPPO-M IBM 4341 and those databases developed for migration to VIABLE. Assignments involve assisting system developers to understand how to structure relational databases, design systems through usage of Conceptual Data Modeling (CDM) methodology, and translate the CDM design into a physical model. Assists in maintaining the active DATADICTIONARY for development and production environments. Ensures that the physical database design process facilitates the usage of DATAQUERY for online access to data and DATAREPORTER for ad hoc batch reports, as well as meets the system developer's requirements for accessing the database through CICS and batch COBOL programs.

- Assists in defining and disseminating technical standards and guidelines for the usage and control of the database environment.

- Ensures that all data fields entered into the DATADICTIONARY have been standardized in accordance with Army data standardization regulations.

- Implements DATADICTIONARY and database security through issuance of system/operator identification.

- Monitors daily performance of the database environment to ensure efficient utilization of storage space, keep track of system response time and maintain adequate records of DBMS growth rate.

- Coordinates with system developers concerning procedures for changing status of databases in development and facilitates the movement of databases from the development environment to production environment.

- Trains functional users in DATAQUERY.

FACTOR 1. KNOWLEDGE REQUIRED BY THE POSITION -

- Knowledge of the objectives, overall design and operation of HQ TRADOC database systems in order to recognize probable interactions involved in assigned functions.

- Knowledge of overall Federal, DOD and departmental policy, rules and regulations regarding data element standardization and knowledge of general ADP standards sufficient to advise systems designers on the use of elements and codes in the assigned application area.

- Knowledge of the agency's data processing standards for database and CICS programming.

- Knowledge of the Army standard database software DATACOM/DB and its interfacing DATADICTIONARY, DATAQUERY, and DATAREPORTER software. Knowledge of this software should enable the employee to train others, especially in query and report writer applications.

- Knowledge of system analysis and design techniques and alternative design approaches relevant to the database application area in order to carry out studies to advise on the merits of proposed database changes.

- Understanding of the capabilities and limitations of the activity's computer equipment configurations, system software, utility programs and programming aids available in order to carry out database design projects and coordinate efforts with others affected in the organization.

FACTOR 2. SUPERVISORY CONTROLS -

- Receives general supervision consisting of initial assignments from the Branch Chief outlining general policies and concepts, setting priorities, and deadlines. Supervisor is available for advice and guidance on unusual problems encountered. The employee keeps the supervisor informed of progress, unanticipated resource needs, and issues likely to impact other organizational units. Work is reviewed in terms of effectiveness in meeting requirements, timeliness, and conformance to the agency ADP standards.

FACTOR 3. GUIDELINES -

- Federal, DOD, and agency ADP policies exist and set forth requirements. Rules, regulations, manuals and instructions provide general guidance. The employee is required to adapt guides and precedents for application to the assigned project or gather considerable data to supplement gaps or lack of specificity to solve a particular problem. The employee uses judgment in interpreting the guidelines to advise senior personnel on general considerations to resolve specific cases. The methodology and coordination requirements in precedent projects may not be available to meet the needs of new assignments. The employee recommends changes in procedure and approach regarding applicable area of assignment.

FACTOR 4. COMPLEXITY -

- The assignment consists of broad functions or processes in the ADP field. Concern is with all stages of automation from defining the need, creating the database, and maintaining the dictionary for the database. Must perform access requirements analysis to determine specific data a user needs to fulfill his/her needs, frequency of request, and time constraints placed on data availability. Employee ensures that keys and elements to database are created to allow access to data required by a large number of users. To facilitate subsequent modifications, interrelationships of existing and proposed systems in the database environment must be analyzed and consideration given to probable areas of future change. The work requires

innovative approaches and consideration of a wide variety of data for new systems where precedents may not exist.

FACTOR 5. SCOPE AND EFFECT -

- The work affects the basic structuring of automated database systems that concern a variety of functional operations in the agency. Advice and guidance provided by the employee affect the work of other ADP experts and ADP users.

FACTOR 6. PERSONAL CONTACTS -

- Personal contacts are with ADP and user personnel at various levels within the department, representatives of other Government agencies, and representatives of vendors and contractors.

FACTOR 7. PURPOSE OF CONTACTS -

- Responsible for coordination and collaboration with computer systems analysts and functional area personnel to ensure accurate and timely products. Makes staff assistance visits to activities in connection with development or installation of database systems. Conducts orientation and training on a segment of user training, specifically query and report writer software training.

FACTOR 8. PHYSICAL DEMANDS -

- The work is sedentary; however, it may be necessary to visit users even in inclement weather.

FACTOR 9. WORK ENVIRONMENT

- The work is performed in a typical office setting.

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DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 501; the proponent agency is DCSPER	1. JOB NUMBER 86-368-S
2. INSTALLATION OR HEADQUARTERS OFFICE USAISC Fort Hood, TX	3. ORGANIZATIONAL LOCATION (Complete on organization copy only) USAISC, Automation Division Information Center FT. Hood, TX
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE OPM/PCS/PES, GS-334, Dec 80 OPM/PCS SGUG, Part II,	5. TITLE Supervisory Computer System Analyst 6. PAY SCHEDULE: GS; 7. OCC CODE: 334; 8. GRADE: 12 9. FAIR LABOR STANDARDS ACT: [X] EXEMPT [ ] NONEXEMPT 10. COMP LEVEL

11 EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Jenell H. Garner — 24 Apr 86
(Signature) (Date)

12 JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

X [illegible] — 24 Apr 86
(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

Jenell H. Garner — 24 Apr 86
(Signature of Position Classification Specialist) (Date)

13 STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES

Serves as the Chief/Hardware Tech Support Section supervisor.

- Supervises one military personnel and four civilian employees.

- Evaluates employee performance, develops standards under GPAS for employees in the section. Interviews applicants for vacant positions, makes recommendations for appointments, promotions, and reassignments. Approves and disapproves leave requests. Hears and resolves complaints from employees. Refers group grievances and complaints to the Branch Chief. Effects minor disciplinary measures such as warnings and reprimands, recommends further action in more serious cases. Identifies development and training needs of group to supervisor. Reviews work products of group as to timely performance, satisfactory amount and quality. ____%

- Collects application requirements for information distribution. Develops the user-computer interface to manage problem resolution and field user profiles.

receives user application development requirements for network services. Ensures user satisfaction with Data Processing services by resolving user complaints that pertain to either hardware or software. Assists users in the operation of terminals and functional applications.

- Regularly represents the Directorate at meetings with officials from other components within Fort Hood engaged in development of information systems and teleprocessing networks. Insures the department's views are presented and negotiates matters such as modifications to plans and implementation of schedules.

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a reassignment and must be corrected immediately by submission of Standard Form 52 to either detail or permanently reassign the employee to these duties. Failure to follow this procedure constitutes a merit system violation.

NOTE - This is a new position. Position is evaluated on a projected basis and is subject to post-audit after filled and functioning for a reasonable period of time. This review should address currency and adequacy of job description as well as verify classification allocation.

Factor 1. Knowledge Required by the Position 1250 Pts

Knowledge of agency ADP standards, policies, and authorized system design approaches.

- Knowledge of the objectives and design of teleprocessing systems to recognize both potential models and probable interactions with the assigned application system. Knowledge of all locally written software products as well as complete knowledge of all off-the-shelf software available on the installation mainframes. Knowledge of all micro-software and hardware locally owned or leased at local installation. Knowledge of the work Computer Programmers and Computer Equipment Analysts sufficient to recognize potentially unworkable changes in existing systems that could result from proposed alternatives. Knowledge of agency ADP standards and policies. Ability to write clear procedural instructions for user personnel.

Factor 2. Supervisor Controls 450 Pts

- The supervisor sets forth the employee's scope of activity in the assigned area and assigns special projects with objectives and deadlines. The employee studies the special projects, considers the regular work to be done, judges from precedent studies the manhours needed, and, with the assistance of assigned personnel, executes the assignments within the timeframe required, coordinated with concerned organizations and levels within the department. Unusual problems, controversies concerning policy interpretation, or apparent need to involve other US Army, FORSCOM, or Fort Hood components are brought to the attention of the supervisor.

Factor 3. Guidelines 275 Pts

- Guidelines consist of agency ADP standards and existing systems which usually provide useful models. The employee uses judgment in adapting design approaches based [illegible] precedents to the assigned projects. The employee also [illegible] changes in user work processes where efficiency could be improved. [illegible]

Factor 4. Complexity 225 Pts

- The work consists of independent accomplishment of user assistance in the areas of Starnet hardware and software, IPS hardware and software, System 34 hardware and softwarae, and Personnel Computer hardware and software. Responsible for: ensuring an efficient and economical information network, and the development of manageability functions to control network operations. Ensures that changes to the network are nondisruptive and network tests are included in the design.

Factor 5. Scope and Effect 225 Pts

- The work involves establishing and participating in the criteria for assisting the end users in a wide range of automated systems throughout the installation.

Factor 6. Personal Contacts 25 Pts

- Personal contacts are with employees at various levels within the installation and occasionally representatives of other DA activities, vendors and contact personnel.

Factor 7. Purpose of Contacts 50 Pts

- The employee has frequent conferences with the end-user and occasionally makes formal presentations to user management on the results of feasibility studies. The primary purpose of contacts is to advise on work advise on work effects, coordinate plans, resolve operating problems, test and evaluation of products.

Factor 8. Physical Demands 5 Pts

- The work is sedentary.

Factor 9. Work Environment 5 Pts

- The work is performed in a typical office setting.

TOTAL PTS - 2510

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DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 801; the proponent agency is DCSPER	1. JOB NUMBER 86-243
2. INSTALLATION OR HEADQUARTERS OFFICE USAISC	3. ORGANIZATIONAL LOCATION (Complete on organization copy only) USAISC FORT HOOD, TX
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE OPM/PCS/FES, GS-334, Dec 80.	5. TITLE Computer Systems Programer
	6. PAY SCHEDULE: GS; 7. OCC CODE: 334; 8. GRADE: 11
	9. FAIR LABOR STANDARDS ACT: [X] EXEMPT [ ] NONEXEMPT; 10. COMP LEVEL

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Jenell H. Garner — (Signature) — 21 Feb 86 (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

X [signature] — (Signature of Approving Supervisor) — 19 Feb 86 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

Jenell H. Garner — (Signature of Position Classification Specialist) — 21 Feb 86 (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

MAJOR DUTIES

- Serves as USAISC Network Controller with the primary function to design, implement, and maintain the communications network of this system utilizing the COMTENS 3650 front end processor. Assists in planning, selection, configuaration, and coordinating the installation of data terminals, printers, modems, and controllers. Analyzes the channel assignments on the host computer and performs load balancing through the use of optimum coding techniques to provide best possible response time for network users. Estimates costs and resource requirements for network services. Assigns network addresses, line numbers, and other network installation activities. Using this data, generates and assembles syster software communications modules for the front end processor and host computers. Reviews and submits for approval design of network procedures. Develops, in conjunction with the ADP Security Officer, procedural and security standards for network functions. Assists in providing problem determination solutions to communications users which will require use and knowledge of electronic test sets for simulation of terminals, modems, and central processing units. Coordinates and schedules requirements with Analyst/Programmers, Equipment Analyst, and Information Center personnel to assure all ongoing, new, and future software/hardware operational requirements are identified and [illegible] center. Determines and conducts training for ongoing, new, and project operational

procedures, to include writing and maintenance of computer operation procedures. Provides guidance and procedures for end-user application software and data integrity. Monitors, and updates resources within the Remote Spooling Communication Subsystem. Develops and documents network operating procedures for the data center operations group. Recommends communications hardware and software combinations that will produce optimum results, both in the network control program on the communications front end processor.

- Attends meetings with subject matter specialists to refine design concept of communications networks.

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a reassignment and must be corrected immediately by submission of Standard Form 52 to either detail or permanently assign the employee to those duties. Failure to follow this procedure constitutes a merit system violation.

- NOTE: Incumbent's tour of duty is subject to varying shift start times due to availability of computer systems for system programming efforts.

Factor 1. Knowledge Required of the Position: 1250 Points

Knowledge of networking data communications software is required to advise management on needed communication software to implement new network requirements. This includes COMTENS message switching systems software internals. Requires knowledge of IBM teleprocessing access methods software such as Basic Teleprocessing Access Method (BTAM), Vertual Teleprocessing Access Method (VTAM), BISYSC, Systems Network Architecture (SNA) and Customer Information Control System (CICS). Knowledge of front end processor systems software generation and the IBM CPU systems software generation which pertains to telecommunications access methods. Knowledge of IBM CMS and CMS editors which pertains to the generation and modification of EXEC languages and macro instructions is required. Knowledge of job control language. Ability to utilize vendor supplied programs required for installation and maintenance of application software, executive software, and system operation. Knowledge of computer techniques, methods, and procedures to assist in facilitating the allocation and manipulation of computer hardware.

Factor 2. Supervisory Controls: 450 Points

Works under the general supervision of the Chief, Hardware and Administrative Support Section, Information Center Branch. Work is accomplished independently with general guidance. Assignments are received in the form of projects, and program specifications, and hardware interface requirements for the Fort Hood Installation Processing System (IPS). Incumbent is responsible for planning and carrying out the general maintenance, systems generation, network design, and communications linkage of the IPS. Incumbent is responsible for independent work accomplishment with unusual problems being referred to the supervisor. Work is reviewed for overall system efficiency, spot check, customer satisfaction, and general review of specific problems resolved on projects completed.

Factor 3. Guidelines: 275 Points

Guidelines consist of [illegible] instructions, technical manuals, [illegible]

extensive interpretation of overall specifications, systems software used for previous generations, and manufacturer technical manuals. Judgement is required in developing plans and evaluating methodologies which ultimately reflect in the comprehensive plan for the installation's local area networks. Overall responsibility for development of written ADP procedures for USAISC.

Factor 4. Complexity: 225 Points

The work consists of independent accomplishment of systems software actions, to include defining problems, recommending solutions, performing system software maintenance, and testing changes. Responsible for generation modification, and enhancement of systems software for tailoring to fit the installation computer networking requirements. Performs customer assistance to include modification of customer profiles and accounts. Analyzes, develops, and updates operational procedures and provides training of computer operators in development and use of executive routines in both a production and test environment. Coordinates ongoing and future software/hardware operational requirements with subject matter experts.

Factor 5. Scope and Effect: 150 Points

The work involves analyzing, and advising on system problems, questions, characteristics, design, and use. The work effects the real-time ADP processing activities of the telecommunications system network at a multi-division installation, with a linkage to the VIABLE Regional Data Center network.

Factor 6. Personal Contacts: 25 Points

Personal contacts are with ADP specialists, programmer/analysts, contractor personnel, vendors, representative of other activities, and operations personnel.

Factor 7. Purpose of Contacts: 50 Points

Contacts are to provide and exchange information with subject matter experts, advise on work efforts, coordinate plans, and resolve specific ADP communication systems network and operational problems.

Factor 8. Physical Demands: 5 Points

Must be able to lift 50 lbs; operate military motor vehicle; and climb ladders.

Factor 9. Work Environment: 5 Points

The work will require working in hot/cold and dusty areas.

TOTAL POINTS:

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DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 501, the proponent agency is DCSPER	1. JOB NUMBER 86-246
2. INSTALLATION OR HEADQUARTERS OFFICE USAISC	3. ORGANIZATIONAL LOCATION *(Complete on organization copy only)* USAISC Info Ctr Fort Hood, TX
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE OPM/PCS, GS-334, Dec 80.	5. TITLE Computer Systems Analyst
	6. PAY SCHEDULE: GS; 7. OCC CODE: 334; 8. GRADE: 11
	9. FAIR LABOR STANDARDS ACT: ☐ EXEMPT ☒ NONEXEMPT; 10. COMP LEVEL:

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Jewell V. Harmon (Signature) — 15 Apr 86 (Date)

12. JOB CONTENT APPROVAL *(COMPLETE ON ORGANIZATION COPY ONLY)*

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

X [signature] (Signature of Approving Supervisor) — 15 Apr 86 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

Jewell V. Harmon (Signature of Position Classification Specialist) — 15 Apr 86 (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES

Performs System Anelysis and design of various automated systems in support of Fort Hood.

- Provides preliminary system analysis, including hardware and software evaluation, system design, system testing, and system implementation affecting batch and interactive processing systems. Provides technical assistance and training for application system users. Prepares system documentation in accordance with local SOP and governing DOD and DA regulations. Serves on typical system modification projects and new application development projects. Participates in all phases of the project. Advises on system requirements and limitations to help user personnel in defining the problem or need for automation. Performs both hardware/software and cost feasibility investigations of user proposals and or/recommends alternate solutions. Determines system configuration, equipment requirements, file and record requirements and structures, data flow within the using organization and sources and destinations of required data and information. Provides technical assistance to user in development of functional description. Identifies specific automation requirements to include

specific data elements to be used, data flow diagrams, program modules and their interrelationships and develop system flow charts. Provides user training and technical assistance upon implementation of the application.

- Serves as team leader or team member with other system analysts and required computer specialists on large scale automation projects. As team leader, serves as single point of contact for prospective users and other agencies needing or providing technical information. Provides team supervision under direction of project manager. As a member is typically assigned specific requirements of the overall system and is responsible for analysis, design and interfacing of those specific requirements with other requirements within the same application. Works with other team members and user representatives in performing such duties as 1) examining existing applications within [illegible] from sources as [illegible], or [illegible] to determine feasibility of adopting existing [illegible] to accommodate user needs, 2) analyzing user requirements and [illegible] [illegible] solutions or develop plans to automate these processes [illegible] [illegible] for actual development, 3) determining whether to utilize [illegible] structures of [illegible] Base Management systems for storage of system data, 4) providing technical assistance and user training for developed application.

- Performs research, experimentation, and evaluation of new products and develops [illegible] evaluations, preliminary analysis, and recommendations for user requests of [illegible] or teleprocessing needs. Uses large scale, complex [illegible] computer systems and IBM compatible microcomputers to develop, test, debug and implement user requested applications in either batch or interactive environments. Considers and recommends teleprocessing or distributed processing solutions or alternatives.

- Serves as a consultant and provides technical assistance and recommendations or alternative solutions for user requests of off-the-shelf software packages to perform automated functions within the requesting agency. Determines cost effectiveness of such packages as opposed to development of an application of an IPS system. Makes field trips to user organizations to secure data concerning problem areas to orient managers on new procedures, evaluate field recommendations, and participate in systems acceptability tests. Meets frequently with programmers and testing specialists to coordinate work and resolve problems. Occasionally meets with personnel in other commands such as TRADOC and FORSCOM on problems of mutual concern.

NOTE: This is a new position in the Information Center that is established and evaluated on a projected basis. Position is subject to post audit after filled and functioning for a reasonable period of time to ensure accuracy of duties and classification allocation.

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a misassignment and must be corrected immediately by submission of [illegible] 52 to either detail or permanently assign the employee to these duties. Failure to follow this procedure constitutes a merit system violation.

FACTOR 1. Knowledge Required by the Position. 1250 Points

[illegible] knowledge of higher level languages and utilities such as COBOL, [illegible], [illegible] in developing interactive and batch applications for the [illegible] [illegible] System. Knowledge of systems analysis and design techniques.

pertinent characteristics of system software and system hardware in order to perform studies to advise management on merits of proposed ADP applications. Knowledge of state-of-the-art microcomputer equipment and software, to include off-the-shelf software package capabilities. General knowledge of VIABLE and STAMIS systems and their use in mission and data processing systems on Fort Hood. A general knowledge of the mission, objectives, terminology, and management practices at Fort Hood to enable recognition of possible areas of interaction and overlap between proposed applications and existing systems. Knowledge of ADP procedures, regulations and prevailing practices in similar agencies or the private sector to provide solutions or alternative recommendations in development of applications systems. Skill in modification of existing systems to assist in relating major considerations or aspects of the work to the overall project. Specific knowledge of the processes, [illegible], procedures or system design. Skill in identifying and correcting system problems which are noted during operation phase of software life cycle. Knowledge of the [illegible] of computer peripherals and computer equipment analysis sufficient to recognize potentially unworkable changes in existing systems that could result from proposed alternatives. Broad knowledge of costs and benefits of alternate computer technologies potentially applicable to the affected area sufficient to perform studies and advise on whether new systems or changes in existing systems are desirable.

FACTOR 2. Supervisory Controls. 450 Points

The supervisor sets the overall objectives and, in consultation with the employee, determines timeframes and possible shifts in staff or other resources required. The employee is responsible for planning and carrying out the work, resolving conflicts with programmers and user representatives, integrating and coordinating the work of others as necessary, and interpreting policy on own initiative in terms of established objectives. The supervisor is kept informed of progress, potentially controversial matters, or those with far reaching implications. Completed work is reviewed from an overall standpoint in terms of feasibility, compatibility with other work, or effectiveness in meeting requirements of expected results.

FACTOR 3. Guidelines. 275 Points

Guidelines primarily consists of Fort Hood ADP standards and precedents. Constraints are imposed by the requirement for compatibility with existing systems. In general, documentation is not available, inadequate and/or inconsistent with agency standards. Judgement is required in interpreting the existing documentation, if any, deciding what additional information may be needed, selecting sources of appropriate data, and adapting existing systems to new requirements.

FACTOR 4. Complexity. 225 Points

The assignments involve several of the stages in the automation process. Deciding what is to be done typically requires assessment of situations complicated by insufficient data. Consideration must be given to probable areas of future change in requirements so as to facilitate subsequent modifications. The work requires development of programming specifications for substantial changes to existing systems.

FACTOR 5. Scope and Effect. 225 Points

The work involves isolation and definition of problem conditions, or [illegible] in resolving various system problems, formulation of projects proposals, and establishment of programming specifications. The systems worked upon may involve [illegible]

number of activities within the agency and are not for standard use at other ADP sites in the agency. Rather, they are primarily to support the local users in administrative and managerial operations.

FACTOR 6. Personal Contacts. **25 Points**

[illegible] contacts are primarily with fellow employees, procurement, equipment [illegible], managers of various activities, and end-user representatives.

FACTOR 7. Purpose of Contacts. **50 Points**

The purpose of the contacts is to [illegible] information, [illegible] problems, and coordinate work efforts.

FACTOR 8. Physical Demands. **5 Points**

The work is sedentary.

FACTOR 9. Work Environment. **5 Points**

The work is performed in a typical office setting.

DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1. JOB NUMBER	
2. INSTALLATION OR HEADQUARTERS OFFICE USAISC	3. ORGANIZATIONAL LOCATION *(Complete on organization copy only)* USAISC Fort Hood, TX
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE OPM PCS FES, GS-1712, Oct 66; Instructor Grade Evaluation Guide, Oct 82; GS-335, Feb 80.	5. TITLE Training Instructor (ADPE End-User)

6. PAY SCHEDULE	7. OCC CODE	8. GRADE
GS	1712	07

9. FAIR LABOR STANDARDS ACT	10. COMP LEVEL
☐ EXEMPT ☒ NONEXEMPT	

11 EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12 JOB CONTENT APPROVAL *(COMPLETE ON ORGANIZATION COPY ONLY)*

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

X

(Signature of Approving Supervisor) *(Date)*

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

(Signature of Position Classification Specialist) *(Date)*

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES

Serves as the Education Coordinator for the Information Center Branch, Automation Division, US Army Information Systems Command.

- Develops procedure manuals, operation guides, and formal education packages to make and keep users aware of the capabilities of the Installation Processing System and microcomputers. Conducts end user training on Installation Processing System and microcomputer software. ____1

- Evaluates and recommends the selection of commercial training packages, to include computer-assisted instruction, self-paced programs of instruction, multi-media courses, and resident training courses to assist the III Corps and Fort Hood computer training effort. Develops formal educational training packages to include programs of instruction, lesson plans, and training and visual aids. ____

- Collects source materials for various courses from sources both inside and outside the federal government; e.g. private industry, educational institutions, libraries, and personal research. These source materials are not readily available and

DA FORM 374

PREVIOUS EDITIONS OF THIS FORM MAY BE USED. U.S. Government Printing Office 1983-381-646/8534

constantly revised with little or no notice to using agencies. These materials must be massaged to make them consistent with the III Corps and Fort Hood training effort. ____2

- Provides consultation services to both DOIM and III Corps MACOM instructor personnel on techniques and methods of instruction and software in use at Fort Hood. ____1

- Provides assistance on instructional techniques and methods and advises, observes, and evaluates the instructor personnel on classroom instructions. Compiles and analyzes requests on training requirements received from organizations responsible for providing that information. Determines schedules and quotas for all civilian and military personnel at Fort Hood based on the analysis of information received. Responsible for providing help desk personnel with sufficient instructions to perform as teaching assistants on an as needed basis. ____2

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a misassignment and must be corrected immediately by submission of Standard Form 52 to either detail or permanently assign the employee to these duties. [illegible]

Factor 1. Knowledge Required by the Position. 750 pts

Extensive knowledge in the application of a variety of advanced, sophisticated, instructional techniques suitable to the automatic data processing subject area, to include, seminar, group discussion techniques, programmed instruction, multi-media and computer based instruction. A broad knowledge of, to the extent that the individual will be able to plan for and execute end-user training for, all micro and mainframe computer software in use at Fort Hood. A basic knowledge of management principles is required to efficiently manage the scheduling function.

Factor 2. Supervisory Controls. 275 pts

Works under the general guidance of the Chief, Software/Education Support Section of the Information Center Branch, Automation Division. Incumbent is responsible for work accomplishment without benefit of detailed supervision or guidance. Supervisor furnishes guidelines as to the software packages the employee is to prepare to teach. These guidelines are based on DOIM management's determination of end-user needs. Review is made for adequacy and effectiveness of incumbent's lesson plans and teaching performance and the effective management of the scheduling function.

Factor 3. Guidelines. 125 pts

Guidelines consist of oral/verbal instructions, policies, procedures, SOPs, vendor software instruction manuals, etc. Employee uses judgement to determine course contents and adapts teaching methods to the particular need for education/instruction with consideration given to the knowledge and skill level of the persons receiving training.

Factor 4. Complexity. 150 pts

[illegible]

exercises, and perform other such functions needed to conduct classes on micro and mainframe computer software and capabilities in place at Fort Hood. Scheduling function involves a level of complexity commensurate with scheduling training classes for the military and civilian population of Fort Hood.

Factor 5. Scope and Effect. 75pts

The work involves establishing lesson plans and classroom exercises for end-user training on software and hardware systems in use at Fort Hood. These Software programs are developed both locally and procured from vendors. Work performed effects III Corps and Fort Hood activities and Major Subordinate Commands in their ability to use automated systems and procedures to assist them in performing their mission.

Factor 6. Personal Contacts. 25pts

Contacts are with management officials, ADP experts both within and outside Fort Hood, and users of ADP resources, and representatives of vendors and contractors.

Factor 7. Purpose of Contacts. 20pts

Contacts within Fort Hood are twofold and perform two functions. 1) Assist in determining end user training requirements with Civilian Personnel Office, Corps Automated Management Office, and Headquarters Command training officials. 2) Provide management overview of end user training on software and hardware in use at Fort Hood.

Contacts outside the federal government are to obtain updated source material for specific courses and to ensure that updated teaching methods and up-to-date subject information are incorporated into instruction material.

Factor 8. Physical Demands. 5pts

Work requires standing, walking, stooping, bending, carrying and lifting computer equipment and supplies up to 40 lbs.

Factor 9. Work Environment. 5pts

The work is performed in a typical office setting.

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DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1. JOB NUMBER: 85-656

2. INSTALLATION OR HEADQUARTERS OFFICE: HQ, III CORPS AND FORT HOOD
FORT HOOD, TX

3. ORGANIZATIONAL LOCATION (Complete on organization copy only): DMIS
FORT HOOD, TX

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE: OPM/PCS/FES GS-335, Feb 80.

5. TITLE: Computer Assistant

6. PAY SCHEDULE	7. OCC CODE	8. GRADE
GS	335	06

9. FAIR LABOR STANDARDS ACT: ☐ EXEMPT ☒ NONEXEMPT

10. COMP LEVEL:

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Rod Washburn (Signature) — 19 September 1985 (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

Bruce Damon (Signature of Approving Supervisor) — 3 Sep 85 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

Rod Washburn (Signature of Position Classification Specialist) — 19 September 1985 (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES:

Serves as primary point of contact for resolution of customer problems related to data processing in the Information Center Branch of the Information Systems Division.

Provide first level customer application assistance or be able to direct the customer to the correct software analysts for consultation.

Initiates request to equipment vendors for maintenance of the telecommunication network equipment and microcomputer equipment. The employee must be able to explain to the vendor representatives what the malfunction consists of and what procedures were used to try to correct the problem.

Publishes a regular newsletter for the customer community to keep them aware of such items as support personnel and there telephone number, new services, new applications, education schedules, course description summaries and procedures.

Provides administrative support to the Information Center Branch. As such will be expected to be able to coordinate the effort of the Information Center Staff, maintain the files and keep the Chief informed of any factors that would effect the efficiency of the Information Center.

DA FORM 1 JUN 76 374 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED

Delivers and installs terminals and printers for customers. Sets up the equipment and performs operational test to ensure the equipment is properly connected and ready to use.

Is the VIABLE Computer Based Instruction (CBI) coordinator. As such will be required to coordinate directly with the Regional Data Center in Washington, D.C., to resolve any training problem that should arise. Training given on the VIABLE terminal self paced instruction. Coordinate with security for passwords. Work with RDC to make sure passwords are provided.

Maintains an on line log of all customer requests and problems for all systems. Ensures that the on line problem logs are accurate and up to date. Also reviews the logs for any reoccurring problems or indicators of future problems.

Assist the customer in resolving any problems with data processing services or scheduling.

Is the security manager for the Information Center.

Maintains the DMIS technical library, consisting of approximately 600 volumes, to include operations manuals, users manuals, and technical bulletins. Maintains and updates an on line index of current library holdings.

Types a variety of correspondence using several formats, requiring the services of a qualified typist.

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a misassignment and must be corrected immediately by submission of Standard Form 52 to either detail or permanently assign the employee to those duties. Failure to follow this procedure constitutes a merit system violation.

Factor 1. Knowledge Required by the Position. **550 Points**

A working knowledge of data processing functions and principles of both software and hardware is required in order to comprehend the customer's problems. A thorough knowledge of all functions of the software and hardware is required in order to determine the nature of the customer's problem and convey to the customer the solution to the problem. A working knowledge of production processing procedures and flow, and knowledge of computer equipment utilization options for processing applications is required in order to advise the customer of available options when data processing services are requested. Knowledge of organization policies and procedures controlling the assignment of processing priorities to accommodate customer request or to refer conflicting priorities to specialists for resolution. A thorough knowledge of the telecommunication network is required to ensure that the correct action is evoked to correct the problem. Must be skilled in telephone communications and understand the needs of the customer. Must have a working knowledge of office procedures in order to ensure the efficiency of the office. Must be a qualified typist.

275 Points

Factor 2. Supervisory Controls

Works under the general guidance of the Branch Chief, Information Center Branch, Directorate of Management Information Systems. Incumbent is responsible for accomplishing work without detailed guidance in accordance with established policies, basic guidelines, and system documentation. Supervisor and technical support personnel are available to provide advice and assistance as required. Completed work is reviewed in terms of program effectiveness and results achieved.

125 Points

Factor 3. Guidelin

Guidelines for recurring work are contained in the policies of the Directorate and the verbal instructions of the supervisor. Manuals and other records maintained by the incumbent vary according to problem and operating system. Judgment must be used in order to determine which should be used. Judgment must be used by the incumbent when presented with overlaping, conflicting or new applications problems.

75 Points

Factor 4. Complexity

Each problem will require consideration of many variables (such as the system on which the processing was being done, the application being used, which subchannel and the relative address of the terminal) in order to determine the nature of the problem and to determine a solution. The employee must be able to determine what is to be accomplished, the priority, and the appropriate method to solve the customers problems. The employee must be able to determine who the problem should be referred to at the second level if the incumbent cannot solve the problem. Work must be done quickly and efficiently to expedite problem solving.

75 Points

Factor 5. Scope and Effect

The purpose of the work is to provide help to data processing customers who are experiencing problems. The work involves treating a variety of moderately complex problems and coordination with vendor technicians to solve those problems. Also coordination must be made with various agencies in order to solve the training problems of the customers. Accomplishment of the work affects the operation of computer equipment and systems used throughout the installation on three data processing telecommunication networks. All Installation Processing Systems, VIABLE and System 34 terminals, cluster controllers, communications lines and printers are within the scope and knowledge required.

25 Points

Factor 6. Personal Contacts

Contacts are with co-workers, customers, vendor representatives, problem coordinators at other government installations, network controllers, programmers, analysts and systems programmers.

50 Points

Factor 7. Purpose of Contacts

The majority of the contacts are for the purpose of exchanging or explaining factual information about the hardware or software used at Fort Hood. Contacts are to discuss operating problems and provide information for the purpose of solving customer equipment or software malfunctions or to help the customer that is [illegible] their data processing equipment and systems.

Factor 8. Physical Demands 5 Points

The work requires moderate physical effort for lifting of CRTs and printers for exchange. Installation will be required on a moderate basis.

Factor 9. Work Environment 5 Points

Work is in an office setting. Travel to all parts of the installation may be required for terminal installations or testing.

DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 801; the proponent agency is DCSPER	JOB NUMBER 86-374-T

2. INSTALLATION OR HEADQUARTERS OFFICE	3. ORGANIZATIONAL LOCATION (Complete on organization copy only)
USAISC Fort Hood, TX	USAISC, Automation Division Information Center Fort Hood, TX
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE OPM/PCS/FES, GS-1712, Oct 66; Instructor GEG, Oct 82; GS-335, Feb 80	5. TITLE Training Instructor (ADPE End-User)
	6. PAY SCHEDULE: GS / 7. OCC CODE: 1712 / 8. GRADE: 05
	9. FAIR LABOR STANDARDS ACT: ☐ EXEMPT ☒ NONEXEMPT / 10. COMP LEVEL

11 EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Jewell L. Garner — (Signature) — 24 Apr 86 (Date)

12 JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

X [signature] — (Signature of Approving Supervisor) — 24 Apr 86 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

Jewell L. Garner — (Signature of Position Classification Specialist) — 24 Apr 86 (Date)

13 STATEMENT OF DUTIES AND RESPONSIBILITIES

SUPERVISORY CONTROLS

Receives close supervision initially consisting of continuous guidance and instruction and a thorough review of work during progress and upon completion. As training progresses and competence is gained, incumbent is permitted to function with increasing freedom from supervision.

MAJOR DUTIES

1. Receives training in performance of duties and responsibilities set forth on attached job description (Job # 86-267). Gradually assumes more responsibility and learns to perform the full scope of the position.

Performs other duties as assigned.

NOTE: Non-competitive promotion of the incumbent of this position may be effected provided the attached description is classifiable to its present title, series, code, and grade level at the time the incumbent meets the following requirements:

a. The incumbent is performing the full scope of the major duties under the supervisory controls stated in the attached description.

b. The incumbent meets the regulatory qualification requirements for promotion.

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DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 801 the proponent agency is OCSPER

1. JOB NUMBER: 85-657-T

2. INSTALLATION OR HEADQUARTERS OFFICE: HQ, III CORPS AND FORT HOOD
FORT HOOD, TX

3. ORGANIZATIONAL LOCATION (Complete on organization copy only): DMIS
FORT HOOD, TX

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE: OPM/PCS/FES GS-335, Feb 80.

5. TITLE: Computer Assistant

6. PAY SCHEDULE	7. OCC CODE	8. GRADE
GS	335	05

9. FAIR LABOR STANDARDS ACT: ☐ EXEMPT ☒ NONEXEMPT

10. COMP LEVEL:

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

Rod Washburn
(Signature)

19 September 1985
(Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS

Gary E. Lohmann
(Signature of Approving Supervisor)

19 September 1985
(Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

Rod Washburn
(Signature of Position Classification Specialist)

19 September 1985
(Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES DUTIES

Receives training in performance of duties set forth on attached job description (Job # 85-656). Gradually assumes more responsibility and learns to perform the full scope of the position. The training status of the incumbent has the following impact on the Factor Level Descriptions of the attached job description:

Factor 1, Knowledge Required by the Position: Level _____ - _____ Points
Incumbent does not initially perform all functions or utilize the full scope of skills and knowledge required at full performance level.

Factor 2, Supervisory Controls: Level 2/2 - 125 Points
Supervisor initially provides additional guidance and instructions. The work product is subject to more review. As training progresses and competence is gained, incumbent is permitted to function with increasingly less supervision.

Factor(s) _____. Due to impact of the above and training status, the factor(s) evaluate to Level _____ - _____ Points and Level _____ - _____ Points respectively. Factors 3, 6, 7, 8, 9 and ___ are not redescribed but performance may be limited during training period. Performs other duties as assigned. NOTE: Non-competitive promotion of the incumbent of this position may be effected provided the attached position is correctly classified when the incumbent: (a) is performing the full scope of the duties at the factor levels described on attached descriptions; AND (b) meets the regulatory qualification requirements for promotion. Assignment of duties other than those described above and/or on attached descriptions as a trainee for a period exceeding 30 days constitutes a misassignment.

DA FORM 374 PREVIOUS EDITIONS OF THIS FORM MAY BE USED

Delivers and installs terminals and printers for customers. Sets up the equipment and performs operational test to ensure the equipment is properly connected and ready to use.

Is the VIABLE Computer Based Instruction (CBI) coordinator. As such will be required to coordinate directly with the Regional Data Center in Washington, D.C., to resolve any training problem that should arise. Training given on the VIABLE terminal self paced instruction. Coordinate with security for passwords. Work with RDC to make sure passwords are provided.

Maintains an on line log of all customer requests and problems for all systems. Ensures that the on line problem logs are accurate and up to date. Also reviews the logs for any reoccurring problems or indicators of future problems.

Assist the customer in resolving any problems with data processing services or scheduling.

Is the security manager for the Information Center.

Maintains the VIABLE technical library, consisting of approximately 600 volumes, to include operations manuals, users manuals, and technical bulletins. Maintains and updates an on line index of current library holdings.

Types a variety of correspondence using several formats, requiring the services of a qualified typist.

- Performs other duties as assigned.

- Assignment to duties other than those described above for a period in excess of 30 days constitutes a misassignment and must be corrected immediately by submission of Standard Form 52 to either detail or permanently assign the employee to those duties. Failure to follow this procedure constitutes a merit system violation.

Factor 1. Knowledge Required by the Position. 550 Points

A working knowledge of data processing functions and principles of both software and hardware is required in order to comprehend the customer's problems. A thorough knowledge of all functions of the software and hardware is required in order to determine the nature of the customer's problem and convey to the customer the solution to the problem. A working knowledge of production processing procedures and flow, and knowledge of computer equipment utilization options for processing applications is required in order to advise the customer of available options when data processing services are requested. Knowledge of organization policies and procedures controlling the assignment of processing priorities to accommodate customer request or to refer conflicting priorities to specialists for resolution. A thorough knowledge of the telecommunication network is required to ensure that the correct action is evoked to correct the problem. Must be skilled in telephone communications and understand the needs of the customer. Must have a working knowledge of office procedures in order to ensure the efficiency of the office. Must be a qualified typist.

Factor 3. Supervisory Controls — 275 Points

Works under the general guidance of the Branch Chief, Information Center Branch, Directorate of Management Information Systems. Incumbent is responsible for accomplishing work without detailed guidance in accordance with established policies, basic guidelines, and system documentation. Supervisor and technical support personnel are available to provide advice and assistance as required. Completed work is reviewed in terms of program effectiveness and results achieved.

Factor 4. Guidelines — 125 Points

Guidelines for recurring work are contained in the policies of the Directorate and the verbal instructions of the supervisor. Manuals and other records maintained by the incumbent are available to provide the operating system, [illegible] pertinent that must be used in order to determine which should be used. Judgment must be used by the incumbent when presented with overlaping, conflicting or new applications problems.

Factor 4. Complexity — 75 Points

Each problem call received consists of a set of variables (such as the system on which the processing was being done, the application being used, which subchannel and the relative address of the terminal) in order to determine the nature of the problem and to determine a solution. The employee must be able to determine what is to be accomplished, the priority, and the appropriate method to solve the customers problems. The employee must be able to determine who the problem should be referred to at the second level if the incumbent cannot solve the problem. Work must be done quickly and efficiently to expedite problem solving.

Factor 5. Scope and Effect — 75 Points

The purpose of the work is to provide help to data processing customers who are experiencing problems. The work involves treating a variety of moderately complex problems and coordination with vendor technicians to solve those problems. Also coordination must be made with various agencies in order to solve the training problems of the customers. Accomplishment of the work affects the operation of computer equipment and systems used throughout the installation on three data processing telecommunication networks. All Installation Processing Systems, VIABLE and System 34 terminals, cluster controllers, communications lines and printers are within the scope and knowledge required.

Factor 6. Personal Contacts — 25 Points

Contacts are with co-workers, customers, vendor representatives, problem coordinators at other government installations, network controllers, programmers, analysts and systems programmers.

Factor 7. Purpose of Contacts — 50 Points

The majority of the contacts are for the purpose of exchanging or explaining factual information about the hardware or software used at Fort Hood. Contacts are to discuss specific problems and provide information for the purpose of solving customer equipment or software malfunctions or to help the customer that is [illegible]

Factor 8. Physical Demands 5 Points

The work requires moderate physical effort for lifting of CRTs and printers for exchange. Installation will be required on a moderate basis.

Factor 9. Work Environment 5 Points

Work is in an office setting. Travel to all parts of the installation may be required for terminal installations or testing.

DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 501; the proponent agency is OCSPER	1. JOB NUMBER
2. INSTALLATION OR HEADQUARTERS OFFICE HQ FORSCOM	3. ORGANIZATIONAL LOCATION (Complete on organization copy only) DCSIM Management Division HQ Support Branch
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE	5. TITLE Management Analyst
	6. PAY SCHEDULE / 7. OCC CODE / 8. GRADE
	9. FAIR LABOR STANDARDS ACT ☐ EXEMPT ☐ NONEXEMPT / 10. COMP LEVEL

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

(Signature of Position Classification Specialist) (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES:

The primary purpose of this position is to serve as a Management Analyst in the DCSIM, Headquarters Support Branch with responsibility for conducting management appraisal surveys or studies of activities and functions, providing management advisory services to operating officials and staff members and translating the results of these surveys and studies into automated solutions using word processing and ADPE technology to accomplish the mission. Incumbent has responsibility for monitoring projects involving the development, analysis and evaluation of automated equipment as part of integrated systems throughout the headquarters staff. Examines the establishment and continual implementation of automated office systems as they affect the administrative aspects of the functional user. Management analysis techniques are used to provide staff direction over information processing systems.

--Applies a substantive knowledge of automated systems to review and analyze FORSCOM information management practices and policies and insure thorough integration of selected Information Resources functional systems in support of the FORSCOM mission. Development of comprehensive information systems management policies and procedures which integrate automated office information systems, ADPE, records management, reports management, and forms management into a cohesive, coordinated, and cost effective system.

--Ensures proposals are consistent with long range objectives of the Information Systems Master Plan (ISMP) and approved policy and guidance which provide for uniform practices in the management of the information resource.

--Aseeses current and future technology trends in information management and provides assistance and guidance to FORSCOM activities in the incorporation of these technologies into master planning efforts. Analyzes, evaluates, and recommends the use of potential use of advanced automation technologies in the implementation, management, and control of the headquarters program. Conducts cost benefits analysis of available office information systems, operational trends and services, and technological advances. Reviews and evaluates systems proposals and determines acceptability in relation to records management criteria, cost effectiveness and improved efficiencies for application of technologies for information processing.

--Identiiies, develops and prioritizes new requirements for implementation of automated systems. Recommends changes to existing systems and administrative procedures. Establishes milestones and provides status reports to monitor development of systems. Designs or assists in the design of new systems to including communications requirements. Works with systems specifications from the users which define how the system is organized, the number and kinds of record and files necessary and procedures to obtain and organize the required information and specific data elements to be used.

--Serves as management specialist on independent assignment or as a team member in coordination with computer specialist, equipment analysts and systems analyst to integrate word processing systems, microprocessors, communications and other technology into the overall information processing system for the headquarters.

FACTOR 1. Knowledge Required By the Position. Level 1-7 1250 points

Extensive knowledge of administrative systems, procedures and approval processes is required. This includes stand-alone word processing systems, large office information systems of the shared logic and distributed resources variety, personal computers and their interface capabilities with other automated systems and mainframes. Knowledge of communications protocols and systems capabilities is necessary to assist in the design of local area networks. Knowledge of management analysis techniques and the conduct of feasibility studies is required to identify administrative work processes in the office environment and provide recommendations for automated solutions to reduce administrative workloads.

FACTOR 2. Supervisory Controls. Level 2-4 450 points

The supervisor defines the employee's area of responsibility in terms of general priorities and overall mission requirements. Consideration are given to the recommendations of the employee concerning needs and problems in the area of assignment. The employee is responsible for planning and carrying out special projects in the assigned areas. Responds to crisis troubleshooting calls and coordinates work with the data processing activity, vendors and functional personnel as required. Work is reviewed in terms of effectiveness in meeting system requirements and timely solution of problems that are required by the

user. Supervisor is kept informed of progress, controversial matters or those with far-reaching implications.

FACTOR 3. Guidelines — Level 3-3 — 275 points

Agency automation standards and policies, and vendor's technical literature are available. The employee must anticipate problem areas and consider trends in workload and effect proposed changes on long range automation plans and policy. The changes in the applications are impact significantly on system software.

FACTOR 4. Complexity — Level 4-4 — 225 points

The work consists of a wide variety of activities within the system software speciality area and development of procedures that constitute considerable departure from established practices in applications systems design and programming techniques at the installation. Concern is with essentially all the stages in automation projects, from advising potential users of products/services possible with the operating systems through devising evaluation criteria for the overall functioning of the systems. Many factors, new peripherals, response time, etc., require a depth of analysis due to continuing changes in application program requirements and demands from the users accessing the data base. The work requires developing new information upon which to base future modification/redesign efforts, and extensive coordination with both ADP and user management.

FACTOR 5. Scope and Effect — Level 5-3 — 150 points

The work involves formulating projects, establishing and modifying design criteria, and advising on system software characteristics and use. The individual functions as a management consultant in the systems software and application development areas. Develops guidelines throughout HQ FORSCOM to insure security techniques are implemented to adequately protect classified data in a teleprocessing environment.

FACTOR 6. Personal Contacts — Level 6-3 — 60 points

Contacts often take place with equipment and system software vendors as well as functional users, ADP and information management personnel at higher headquarters.

FACTOR 7. Purpose of Contacts — Level 7-2 — 50 points

Purpose of contacts is to plan, coordinate or advise on work efforts or to resolve problems.

FACTOR 8. Physical Demands — Level 8-1 — 5 points

The work is sedentary.

FACTOR 9. Work Environment — Level 9-1 — 5 points

The work is performed in a typical office setting.

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DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1 JOB NUMBER

2 INSTALLATION OR HEADQUARTERS OFFICE
HQ FORSCOM

3 ORGANIZATIONAL LOCATION (Complete on organization copy only)
DCSIM Management Division
HQ SUPPORT BRANCH
Ft. McPherson, GA 30330

4 CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE

5 TITLE
Supervisory, Mgt Analyst

6 PAY SCHEDULE | 7 OCC CODE | 8 GRADE

9. FAIR LABOR STANDARDS ACT ☐ EXEMPT ☐ NONEXEMPT

10 COMP LEVEL

11 EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12 JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

(Signature of Position Classification Specialist) (Date)

13 STATEMENT OF DUTIES AND RESPONSIBILITIES

Serves as Chief, HQ Support Branch, responsible for providing technical and administrative assistance, consulting, analysis, and training in the use and functions of information processing systems, specific software packages and other available products to solve information requirements at all levels of management and decision making within HQ Forces Command. Supervises 10-12 lower graded employees consisting of computer specialists, management analysts, systems analysts and equipment analysts. Administers and monitors ADP and WPE contracts in support of HQ FORSCOM. Responsible for all ADP and WPE contract renewals, including software, hardware, and maintenance agreements for the HQ. Maintains a complete inventory of all accountable hardware, (ADPE and WPE) for HQ FORSCOM. Support provided makes data readily available for decision making without a formal project development and long range schedule required to develop a system. (25%)

--Acts as advisor to the Division Chief, DCSIM and staff on Information Center concepts, ADP and WPE contracts and total information processing support. Provides technical, administrative, consultant, analyses, and training support to the FORSCOM General and Special staff on the use of the Information Center software and hardware. (15%)

--Evaluates new concepts and technology affecting the accumulation and dissemination of data to solve information needs throughout the headquarters. Provides technical assistance on the use of equipment, software and data generation as it relates to gathering data for problem resolution. Performs studies on the latest ADP techniques, technology, and contracts used in DOD, other Federal agencies, state and local governments, and the private sector. Evaluates vendors' software and hardware and makes recommendations on its adoption as techniques to solving immediate information needs. Consults with users of the Information Center to formulate the best approach to solving their problems, through available software and hardware. Analyzes information processing requests from the user to determine the best suitable solution. Conducts formal management surveys as required to validate requirements. Evaluates resulting analyses and problem definitions; considers relationships to other systems and software efforts planned and makes recommendations as to the most appropriate action in obtaining the desired results. (15%)

--Serves on various groups and committees with respect to the Information Center and ADP and WPE capabilities and limitations. Coordinates with DOD, DA, other Federal agencies, and industry on concepts and technology affecting the Information Center's ability to respond to requests for data and decision making routines and reports. Trains users on how to gain access to the software packages and how to use them to solve their problems. Trains users in skills of problem solving and evaluation solutions. Provides Consultant/Analyst expertise in the use and knowledge of the other packages available on personal computers. word processors, and large scale mainframes. (10%)

--Plans work and sets priorities. Assigns work to subordinate based on priorities, developmental needs, capabilities and assignment requirements. Develops performance standards and evaluates employees' work performance. Provides advice and counsel to subordinates on both work and administrative matters. Approves normal leave requests. Hears and resolves complaints from employees, referring more serious complaints to next level supervisor. Effects minor disciplinary measures. Identifies developmental and training needs of employees. (35%)

DEPARTMENT OF THE ARMY JOB DESCRIPTION For use of this form, see CPR 501, the proponent agency is DCSPER	1. JOB NUMBER

2. INSTALLATION OR HEADQUARTERS OFFICE	3. ORGANIZATIONAL LOCATION (Complete on organization copy only)
HQ FORSCOM	DCSIM Management Division HQ Support Branch
4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE US OPM PCS GS 334, Dec 80.	5. TITLE Computer Systems Analyst
	6. PAY SCHEDULE / 7. OCC CODE / 8. GRADE
	9. FAIR LABOR STANDARDS ACT ☐ EXEMPT ☐ NONEXEMPT / 10. COMP LEVEL

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) 12 July 81 (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

(Signature of Position Classification Specialist) (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

DUTIES:

The primary purpose of this position is to perform duties as a Computer Systems Analyst in the DCSIM Headquarters Support Branch. Serves as a technical specialist on independent assignment or as a member of a team responsible for technical assistance and support in the application of automated data processing and office automation technology for the Headquarters FORSCOM staff.

--Conducts analysis of requests for automation of manual systems or changes to existing systems. Coordinates with functional area specialists to obtain comments, recommendations, etc., to ensure compatibility with existing systems. Coordinates with other specialists to determine resources required to accomplish the project. Participates in systems development projects which have FORSCOM-wide application. Recommends those which are candidates for Armywide application and provides guidance for standardization of those systems. Participates as a team member with computer specialists, management analysts and equipment analyst with responsibility for computer systems identification, design, development and acquisition functions. Participates in organizing and scheduling projects, and assists activities in solving operator/systems problems. (50%)

--Performs systems analysis of user requirements, using knowledge of ADPE resources and office automation technology to plan and project integration of word processing and ADP systems. Prepares feasibility studies, economic analysis and budget and cost estimates for project accomplishment. Plans for and designs telecommunications networks and establishment of local area networks within staff agencies. Evaluates hardware and software to optimize systems capabilities and provides technical advice to users on development and modification of systems application. (30%)

--Recommends overall organizational improvement in areas where ADP techniques can be applied. Develops prepares and submits report to monitor the progress and performance of the systems. Prepares complex system specification and provides project direction and controls within the project specifications. Participates in projects standardization in coordination with higher headquarters. Develops procedures/models as guides for functional users to request automation support from the DCSIM. Develops or revises standards operator/systems training materials to satisfy user training requirements. (15%)

--Conducts studies of proposals for automation initiated by the staff. Collaborates with other specialists for solutions to automation objectives to include data input/output techniques and administrative procedures. (5%)

FACTOR 1. Knowledge Required by the Position

Knowledge of agency ADP standards, policies, and authorized system design approaches, as well as microprocessor and word processing applications; knowledge of the subject matter work processes and terminology in the assigned area; and a familiarity with precedents and alternative automation approaches functioning in comparable organizations with similar missions; all the foregoing to plan and carry out studies to advise on the merits of proposed projects before the final decision to automate and to provide staff advisory services to functional users. Knowledge of structure and work processes involved in other subsystems so as to recognize probable conflicts. Skill at relating aspects and parts of a project or proposal to the overall needs of the organization in order to guide group efforts in accomplishing projects or making decisions on proposals. Knowledge of standard practices employed by applications programmers in order to anticipate programming difficulties in alternate design strategies.

FACTOR 2. Supervisory Controls

The supervisor furnishes general instructions as to the scope of particular projects in the assigned area of responsibility. The employee reviews proposals and advises the supervisor on estimated time and staff requirements, along with any exceptional project characteristics that may affect the supervisor's decision regarding priorities, assignments to particular team members, possible shifts of resources, or formation of special purpose teams. The employee plans and organizes the projects, coordinates team or group efforts and provides technical advice where problems arise. The employee clears with the supervisor approaches that have potential policy impact. Completed work is reviewed for its effectiveness in meeting user requirements, accuracy of estimated timeframes and projected problem areas, and achievement of harmonious relationships in coordinating the project with other groups.

FACTOR 3. Guidelines

Guidelines consist of agency ADP standards and policies, precedent system designs, and user procedures/handbooks, regulations, and directives. Data for automation studies often requires development of special information sources in order to, for example, resolve differences in findings by group members. Often staff visits are required to provide advise, observe work processes, and develop alternative procedures in coordination with user representatives, and/or counterparts in other staff agencies. Trends in workload and effect of proposed changes on long range ADP plans and policy in the applications area typically must be taken into account. In many instances, no guidelines are available since applications may be result of new technology and changing mission requirements. In these cases employee is expected to be innovative in developing the applications and establishing procedures that may eventually be incorporated in policy statements and local directive.

FACTOR 4. Complexity

The work involves several of the stages in application projects to include studies preliminary to the final decision to automate. The work concerns complex, multiple user systems, and involves the maintenance and modifications of existing systems as well as the development of new systems. Variations in approach must be considered and programming specifications developed which will facilitate later modification. The rapidly changing technology requires an unusual depth of analysis to satisfy the users requirements and the emergence of the microprocessors as the universal workstation requires creativity and considerable judgement in determining the most cost effective and efficient automated solution to the problem. Project timetables and schedules are required to integrate the work of others and provide a basis from which to brief the supervisor on accomplishments.

FACTOR 5. Scope and Effect

The work primarily involves a variety of probjems relating to efficiency of data processing in the assigned area, formulation of substantial revisions to systems, and establishment of programming specifications and test plans where numerous alternatives must be evaluated. The work affects operation of standard application systems used in various organizations throughout the staff.

FACTOR 6. Personal Contacts

Personal contacts include those with employees in the agency but outside the immediate organization, such as user representatives or field personnel engaged in different, i.e., non-ADP, work and, on occasion, with equipment or system software vendors.

FACTOR 7. Purpose of Contacts

Contacts are to exchange technical information, coordinate, and advise on work efforts. Also, there is a need to informally arbitrate between various users of the system (who frequently request modificaitons that conflict with or necessitate adjustments to procedures of other users) and persuade affected user personnel and other team members in meeting established deadlines.

FACTOR 8. Physical Demands - The work is sedentary.

FACTOR 9. Work Environment - The work is performed in a typical office setting.

DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1. JOB NUMBER: 386 - 84

2. INSTALLATION OR HEADQUARTERS OFFICE: Headquarters, US Army Forces Command

3. ORGANIZATIONAL DESIGNATION (Complete on organization copy only): DCSIM, HQ Support Branch

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE: US OPM PCS GS 334, Dec 80.

5. TITLE: Computer Specialist

6. PAY SCHEDULE:

7. OCC CODE:

8. GRADE:

9. FAIR LABOR STANDARDS ACT: ☒ EXEMPT ☐ NONEXEMPT

10. COMP LEVEL:

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

(Signature of Position Classification Specialist) (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

Duties: The primary purpose of this position is to consult, train, design develop and provide technical assistance on computers and computer systems through the Information Center (IC) concept, in support of HQ FORSCOM and Ft McPherson. Chairs end-user working groups through which new requirements will be identified, developed, prioritized, and implemented. Advise the FORSCOM and Ft McPherson staff on all matters pertaining to systematizing and hardware capabilities for automated word processing and data processing. Represents the DCSIM in studies of proposals for automation. Provides technical information so that subject matter specialist can effectively and efficiently contribute to selection, definition, prioritizing and implementing systems and applications. (25%)

--Coordinates and collaborates with other ADP specialist as well as subject matter specialists in the design, development, and implementation of systems. (5)

--Recommends development or changes to existing systems to achieve optimum results, including development of new systems, changes to programs, data input/output techniques, and administrative procedures based on changes in the Information Center Environment (10%)

PARA 13. Statement of Duties and Responsibilities (contd).

--Prepares Information/Decision briefings for FORSCOM functional staff and General Officers.

--Establishes milestones and provides status reports to monitor the development of systems.

--Design or assists in the design of new systems. Determines the programing language to be used, the computer on which the program will execute and the computer on which the data will reside. Also determines the users and communications requirements and plans accordingly. Develops high level requirements and coordinates with subject matter specialist so that functional specifications clearly identify the desired end results. (15%)

--Develops or assists in the development of new systems, or modifies existing systems as required. Analyzes and implements changes and develops new applications based upon functional specification. Works with systems specifications from the user which broadly define how the system should be organized, the number and kinds of records, files and documents necessary, the procedures to obtain and organize the required information, and the specific data elements to be used. (15%)

--Provides technical assistance and training on helping users sign on the equipment, installation of equipment and software. Assist the users to gain access to the packages and how to use them to solve their problems and evaluating solutions, how to use features of the packages and debugging their own work. (30%)

--As required, confers with supervisor, other analysts, or the users to clarify requirements to obtain additional information needed, or to make recommendations on alternative procedures.

--Performs other duties as assigned.

FACTOR 1 - Knowledge Required by the Position Level 1-7 1250 points

Knowledge of overall system software to recognize interrelationships within assigned area of responsibility. Knowledge of data base concepts to envision problems which would be encountered by application programmers in using data base structures. Knowledge of analysis and design techniques to develop system software modifications and enhancements. Knowledge of agency ADP standards. Knowledge of state of the art ADPE is required to evaluate new requirements and to recommend an appropriate configuration to satisfy these requirements through conducting studies, attending conferences and vendors shows. Knowledge of telecommunications concepts to plan and support interactive and distributed networks, both local and remote.

PARA 13. Statement of Duties and Responsibilities (contd).

FACTOR 2 - Supervisory Controls Level 2-4 450 points

The supervisor defines the employee's area of responsibility in terms of general priorities and overall mission requirements. Considerations are given to the recommendations of the employee concerning needs and problems in the area of assignment. The employee is responsible for planning and carrying out special projects in the assigned areas. Responds to crisis troubleshooting calls and coordinates work with data processing activity (DPA) personnel, Computer Systems Command (CSC), hardware and software vendors, and functional personnel as required. Work is reviewed in terms of effectiveness in meeting system requirements and timely solution of problems that are required by the user. Supervisor is kept informed of progress, controversial matters or those with far-reaching implications.

FACTOR 3 - Guidelines Level 3-3 275 points

Agency ADP standards and policies, and vendor's technical literature are available. The employee must anticipate problem areas and consider trends in workload and effect proposed changes on long range ADP plans and policy. The changes in the applications area impact significantly on system software.

FACTOR 4 - Complexity Level 4-4 225 points

The work consists of a wide variety of activities within the system software speciality area and development of procedures that constitute considerable departure from established practices in applications systems design and programming techniques at the installation. Concern is with essentially all the stages in automation projects, from advising potential users of products/services possible with the operating systems through devising evaluation criteria for the overall functioning of the systems. Many factors, new peripherals, response time, etc., require a depth of analysis due to continuing changes in application program requirements and demands from the users accessing the data base. The work requires developing new information upon which to base future modification/redesign efforts, and extensive coordination with both ADP and user management.

FACTOR 5 - Scope and Effect Level 5-3 150 points

The Work involves formulating projects, establishing and modifying design criteria, and advising on system software characteristics and use. The individual functions as a consultant in the systems software and application development areas. Develops guidelines throughout HQ FORSCOM to insure ADP security techniques are implemented to adequately protect classified data in a teleprocessing environment.

FACTOR 6 - Personal Contacts Level 6-3 60 points

In addition to contacts within the DPA and HQ FORSCOM/Fort McPherson functional elements, contacts often take place with equipment and systems software vendors as well as other DPA's and computer personnel of Computer Systems Command.

PARA 13. Statement of Duties and Responsibilities (contd).

FACTOR 7 - Purpose of Contacts Level 7-2 50 points

Purpose of contacts is to plan, coordinate or advise on work efforts or to resolve problems.

FACTOR 8 - Physical Demands Level 8-1 5 points

The work is sedentary.

FACTOR 9 - Work Environment Level 9-1 5 points

The work is performed in a typical office setting.

TOTAL POINTS 2470
GS-11

DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1. JOB NUMBER

2. INSTALLATION OR HEADQUARTERS OFFICE
HQ US ARMY FORCES COMMAND

3. ORGANIZATIONAL LOCATION (Complete on organization copy only)
DCSIM, MANAGEMENT DIVISION
HQ SUPPORT BRANCH

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE

5. TITLE
COMPUTER EQUIPMENT ANALYST

6. PAY SCHEDULE	7. OCC CODE	8. GRADE

9. FAIR LABOR STANDARDS ACT ☐ EXEMPT ☐ NONEXEMPT

10. COMP LEVEL

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION

(Signature of Position Classification Specialist) (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

MAJOR DUTIES:

The primary purpose of this position is to serve as a Computer Equipment Specialist performing various duties in connection with acquisition and management of MACOM Information Processing resources.

Provides expertise in ADP/OA hardware, software, maintenance, telecommunications, and support services acquisitions. Develops acquisition documents and manages contracts for same. Develops plans and strategy for each acquisition requirement. Develops contracting alternatives contingent upon certain phases being combined with others or eliminated. Plans for contractor participation and monitors contractor performance. Acquisition documents may contain equipment specifications, maintenance requirements, delivery requirements, security requirements, physical site/environment, evaluation factors, software needed, and other items needed to translate the user needs into automation requirements vendors can respond to. Serves as representative of the Source Selection Evaluation Board (SSEB) analyzing vendors responses to the solicitations. Serves, if necessary, as a member of the Cost Analysis Panel dissecting vendor's cost proposals. Assures user requirements are met at the best overall cost to the government; price and other factors considered. Develops reporting criteria and requirements for status of contracts. Assures selected vendor's compliance with provisions of the

13. Statement of Duties and Responsibilities (contd)

contract. Interprets contracts and informally resolves questions of responsibility for maintenance and repair. Provides guidance to Contracting Officer on technical aspects of ADP/OA/Micrographics. Acts as Contracting Officer's Representative (COR) when required.

Manage contracts after award. Adjust funding requirements as applicable. Assure item(s) delivered is installed and made operational in accordance with the contract. Respond to inquiries from FAO, Commercial Accounts pertaining to proper payments. Prepare necessary documentation for renewing contracts. Prepare receiving report (DD 250) on a monthly basis for all recurring maintenance costs, recurring rental costs, and recurring contractual service. 35%

--Establishes coordination with users before decision to acquire hardware, software, or data communications equipment (DCE) has been reached. Applies knowledge of both technical information processing matters and acquisition strategies to the analysis of users' requirements. While users may have stated requirements in terms of specific ADPE, WPE, or DCE solutions, employee recommends most cost-effective solution based on own analysis of requirements. Recommendation frequently specifies different solutions than ones anticipated by users. Persuasively argues for recommended solutions so that users' formal requests for assistance incorporate employees' recommendations.

Administers an inventory of all equipment and commercially acquired software packages used within the headquarters. Update as changes occur. 5%

Serves as one of the HQ FORSCOM specialists on day-to-day information resource matters and as liaison with vendors, contracting officers, and DCSIRM Budget Analyst, where information resources are concerned. Equipment is located throughout installation and one subinstallation and consist of large mainframe computers, data transmitters, numerous terminals, communications control unit, several small computers, and numerous microcomputers. Assists in developing plans for funding of information projects. Provides input to the information resource budget and to justifications to higher headquarters for more funds. Keeps abreast of commercially available equipment, software, and support services for potential use to FORSCOM. Visits trade shows and reads periodicals to maintain awareness of latest in information resources. Reviews and extracts data from technical publications to assess appropriateness of item. 20%

Performs special projects associated with information resources. 5%

Performs other duties as assigned.

13. Statement of Duties and Responsibilities (contd)

Factor 1, Knowledge Required by the Position

Broad knowledge of the technical characteristics of the information resource equipment and software in FORSCOM; knowledge of the missions and functions of user organizations; knowledge of comparable equipment available to FORSCOM, the latest advances in a wide range of information resource equipment - ADP/OA/telecommunications (including compatibility between and among peripheral equipment and components) - and sources of technical information about them; knowledge of equipment's ability to handle current and project software; knowledge of configuration design techniques; knowledge of overall Federal, DA and FORSCOM policies relating to ADPE, OA, telecommunications systems and software as promulgated by OMB, NBS, and GSA; knowledge of a wide range of equipment and software evaluation techniques to evaluate requirements, to conduct unique studies, to adapt precedent solutions for specialized requirements, to make evaluations, to weigh costs and benefits, and to present recommendations/alternatives on the acquisition plan, on appropriate software and related support requirements, on the merits of proposed systems, and on such matters involved in the development of proposals to user organizations, to the DCSIRM or to higher headquarters.

Factor 2, Supervisory Controls

The supervisor furnishes general instructions as to the scope of particular projects in the assigned area of responsibility. The supervisor is available for advice or assistance but the employee, as a Senior Staff Specialist, is relied upon to plan and carry out the work independently, keeping supervisor advised of progress and only unusual complications or matters of a far reaching, policy making nature. The employee plans and organizes the projects, coordinates work with other information resource people and functional personnel as necessary as well as resolves problems. Completed work is reviewed for effectiveness in meeting requirements, resolving problem areas, technical soundness, and conformance with governing regulations and directives.

Factor 3, Guidelines

Army Regulations, Technical Publications, Contracts, Acquisition Procedures, Vendors' Technical literature, and precedent studies are available. However, these provide little guidance, pertinent to adapting equipment and software to the user particular needs. GSA directives and Army regulations provide general guidance on acquisition and resource sharing matters. However, information resource technology is characterized by rapidly increasing changes causing such guidelines to be of limited utility. Extensive changes in approach and deviation from usual methods commonly are required for the particular needs of a user. Employee uses considerable judgment in relating technical developments to the problem at hand.

13. Statement of Duties and Responsibilities (contd)

Factor 4, Complexity

The employee is involved in most phases of information resources matters, including consulting with the users prior to the decision to automate or reconfigure obsolete automated solutions. The intersection of the fields of analyzing ADPE, WPE, DCE, and applications and systems software with the disciplines involved in acquisition strategies and contract administration results in a hybrid field requiring an unusual depth of analysis to satisfy user requirements, the need for integration with parallel FORSCOM initiatives, cost-effectiveness, legal and contractual sufficiency, maximum private sector competition, and societal goals of assistance to small and minority-owned businesses. The technology is evolving rapidly, requiring the employee to continually stay abreast of these changes. Consideration must be given to accommodating future changes in the specification and acquisition of current systems, t is simultaneously creating uncertainty and the need to minimize uncertainly. In addition, considerable creativity is required to develop and improve contractual strategies to satisfy the often-conflicting interests noted above. Employee must integrate the work of subject-matter experts, computer specialists, vendors, and contracting specialists in SSEBs and other forums in order to accomplish the projects. All these factors complicate the decisions the employee must make regarding what needs to be done. Conflicting requirements are inevitable given the number of interests that must be satisfied. These diverse interests contribute to the exceptional technical difficulty of this hybrid field, in which the conflicting requirements must be satisfied in specific operationally-defined ways. The methodology of acquiring automated equipment does not lend itself to contracting for standardized off-the-shelf hardware and software. The needs of each functional user must be analyzed to determine the system to be acquired. Upon identification of the requirement, employee must determine the specific type of ADPE system to be acquired and the components of the system (internal memory boards) and software to accomplish the application. Systems are then tailored to meet that specific need. Analyst must be knowledgeable not only in equipment capabilities but in the application to be performed and modify or alter the systems components to accomplish the project.

Factor 5, Scope and Effect

The work involves investigating and analyzing a variety of problems, formulating studies, analyzing requirements, and establishing criteria. Accomplishment of the work affects the information resource management function at a wide range of staff agencies through the headquarters.

Factor 6, Personal Contacts

Personal contacts are with users, acquisition personnel, computer staff at higher headquarters with DA, and occasionally outside the agency (e.g., GSA). Contacts also include vendor representatives.

13. Statement of Duties and Responsibilities (contd)

Factor 7, Purpose of Contacts

Contacts are to obtain or provide information and coordinate projects as well as to negotiate with contracting officers and contractors to resolve disagreements. Occasional meetings are held with persons with different viewpoints and goals.

Factor 8, Physical Demands

The work is sedentary.

Factor 9, Work Environment

The work is performed in a typical office setting.

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DEPARTMENT OF THE ARMY
JOB DESCRIPTION
For use of this form, see CPR 501; the proponent agency is DCSPER

1. JOU NUMBER

2. INSTALLATION OR HEADQUARTERS OFFICE
HQ, US Army Forces Command

3. ORGANIZATIONAL LOCATION (Complete on organization copy only)
DCSIM, HQ Support Branch

4. CITATION TO APPLICABLE STANDARD AND THE DATE OF ISSUANCE
USCSC PCS GS-344

5. TITLE
Management Assistant

6. PAY SCHEDULE | 7. OCC CODE | 8. GRADE

9. FAIR LABOR STANDARDS ACT
☐ EXEMPT ☒ NONEXEMPT

10. COMP LEVEL

11. EVALUATION APPROVAL

TITLE, PAY SCHEDULE, OCC CODE, AND GRADE OF THIS JOB HAVE BEEN FIXED IN ACCORDANCE WITH OFFICIAL POLICY AND GRADE LEVEL STANDARDS

(Signature) (Date)

12. JOB CONTENT APPROVAL (COMPLETE ON ORGANIZATION COPY ONLY)

a. I CERTIFY THAT THIS IS AN ACCURATE STATEMENT OF THE MAJOR DUTIES AND RESPONSIBILITIES OF THIS POSITION AND ITS ORGANIZATIONAL RELATIONSHIPS AND THAT THE POSITION IS NECESSARY TO CARRY OUT GOVERNMENT FUNCTIONS FOR WHICH I AM RESPONSIBLE. THIS CERTIFICATION IS MADE WITH THE KNOWLEDGE THAT THIS INFORMATION IS TO BE USED FOR STATUTORY PURPOSES RELATING TO APPOINTMENT AND PAYMENT OF PUBLIC FUNDS AND THAT FALSE OR MISLEADING STATEMENTS MAY CONSTITUTE VIOLATIONS OF SUCH STATUTES OR THEIR IMPLEMENTING REGULATIONS.

(Signature of Approving Supervisor) (Date)

b. THIS JOB DESCRIPTION WITH SUPPLEMENTAL MATERIAL IS ADEQUATE FOR PURPOSE OF EVALUATION.

(Signature of Position Classification Specialist) (Date)

13. STATEMENT OF DUTIES AND RESPONSIBILITIES

MAJOR DUTIES

The primary purpose of this position is to perform assignments designed to apply the basic knowledge of management techniques in support of analysis functions related to HQ FORSCOM.

--Assists with management surveys for the development of automated systems for improving the effectiveness and efficiency of administrative processes in the headquarters staff. Performs specific tasks in connection with the review and analysis of equipment proposals. Utilizes background information, a knowledge of organization and mission, functions and established guidelines to develop recommendations to management officials regarding the kind, range, potential applications and selection of specific systems. Performs cost/benefit comparisons and cost/rental vs purchase analysis of systems. (25%)

--Assists in providing technical advice and assistance to HQ Forces Staff agencies which are developing automated information systems. Provides instructions to operators and managers on the proper and optimum use of equipment. Assists in the development of Users Manuals for staff agencies.

--Performs as a team member in providing advice on use of off-the-shelf software products to accomplish a variety of administrative office functions. Assists analysts and specialist in the accomplishment of mission objectives to include preparation of acquisition documents, approval documentation, equipment specifications,conducting on site surveys and other administrative and technical tasks. Maintains inventory of all hardware and software for the headquarters. Serves as property accountability manager for the branch. (40%)

--Serves as assistant to the branch chief in arranging for travel, appointments, time card maintenance, reception of visitors, correspondence preparation, records maintenance, disposition, and other general administrative functions. (25%)

FACTOR 1. Knowledge Required by the Position

Extensive knowledge of administrative procedures is required, to include preparation of correspondence, coordination of staff papers and a variety of other tasks associated with the typical office.. A working knowledge of Management Analysis techniques is required and the ability to identifiey, defined and resolve problems arising in the administrative work processes in the office environment. A knowledge of automated systems and their operation is required. Good typing skillsare essential.

FACTOR 2. Supervisory Controls

Supervisor defines employee's area of responsibility in terms of general priorities and overall mission requirements. Employee is responsible for carrying our special projects in the assigned areas. Work is reviewed in terms of effectiveness in meeting the established goals.

FACTOR 3. Guidelines

Agency administrative standards, policies and directives are available. Employees must be familiar with these guidelines in carrying out the assigned responsibiliites. Local policy on automation standards, processes and approval and acquisition procedures are available for reference and research when required.

FACTOR 4. Complexity

Work consists of a wide variety of activities within the agency, to include assistance in specialized areas of software applications, acquisitions, contracting processes and overall automation methodologies. Work requires the development of new information upon which to base future information processing policies and procedures for the end users.

FACTOR 5. Scope and Effect

Work involves assisting in the formulation of projects, carrying out ongoing projects initiated by analysts and specialists. Individual functions as a Mnagement Assistant in concert with the major developmental projects of the senior analysts and specialists of the agency.

FACTOR 6. Personal Contacts

Contacts most often take place with the other employess of the branch and division as well as FORSCOM Staff counterparts

FACTOR 7. Purpose of Contacts

Purpose of contacts is to plan, coordinate and assist with the work efforts of other employees of the agency and to resolve problems

FACTOR 8. Physical Demands

The work is sedentary.

FACTOR 9. Work Environment

Work is performed in a typical office setting.

MILPERCEN INFORMATION CENTER

INDIVIDUAL DEVELOPMENT PLAN (IDP): FOR UPWARD MOBILITY EMPLOYEE (GS-335-04/05/06/07)

PHASE I (GS-335-04, GS-335-05)
CONTENT DESCRIPTION

I. ORIENTATION

- a. Upward Mobility Program
- b. Relationship to Data Processing
- c. Relationship to Information Center
- d. Organizational Policy and Procedures
- e. Organizational Structure and Relationships
- f. ADP Career Development

II. ON THE JOB TRAINING

- a. Operation of terminal workstations and other office equipment
- b. Performing basic data processing tasks using the Sperry 1100 System.
- c. Performing familiarization tasks involving documentation.
- d. Performing basic tasks using graphics.

III. FORMAL TRAINING

- a. Introduction to Data Processing
- b. Series 1100 Systems Concepts
- c. Executive Control Language
- d. Documentation and Flowcharting Techniques
- e. Introduction to COBOL Programing
- f. Workshop in COBOL Programing

Knowledge, Skills and Abilities to be Acquired

With this training the employee will be able to understand the purpose and direction of this upward mobility program. The knowledge of data processing jobs and the relationship between the various ADP organizations will be acquired. The employee will be given special insight into the workings of a full-service Information Center, it's history and it's mission. An understanding of the MILPERCEN organizational structure, it's mission and it's relationship within the Army, DOD and the Federal Government will be gained.

The employee will gain certain basic yet useful data processing skills. Knowledge of how a computer system operates and how to write and execute simple programs will be gained. The employee will know the capabilities and limitations of the Sperry 1100 Computer System as well as the capabilities and limitations of any Peripheral systems available within our organization. The ability to use the terminal workstations to perform many of the daily tasks assigned to our organization will be acquired. The employee will learn to perform simple tasks involving graphics software and hardware systems.

PHASE II (GS-335-05, GS-335-06)
CONTENT DESCRIPTION

I. ORIENTATION

a. User Training

b. ADP Procurement

c. Data Base Systems

d. Fourth Generation Software

II. ON THE JOB TRAINING

a. How to extract data from on-line data bases and develop reports.

b. How to create and change MAPPER reports.

c. How to assist in the development and conducting of user ADP Training.

III. FORMAL TRAINING

a. Basic Office Automation Training (Sperrylink)

b. IRGS II (Genius, Report Writer)

c. GRAPHICS (ZCHART, ECO, AUTOGRAF)

d. DBMS Training (System 2000, DMS 1100)

e. MAPPER User Workshop

Knowledges, Skills & Abilities to be Acquired

With this training the employee will begin to understand the broader scope of ADP within MILPERCEN and the Federal Government. The knowledge of how ADP Products are acquired will be gained and the responsibilities of the Government with respect to ADP Vendors and contracts will be taught. A basic understanding of data bases, how they are used and how to extract data from them will be acquired by the employee.

As an ADP Professional Trainee the employee will be introduced to the world of Microprocessing and end-user computing. Training in fourth generation languages such as MAPPER will prepare the employee for understanding the needs of the ADP User and provide the proper understanding of user software development.

The employee will learn basic course development, how to conduct user classes and how to recognize, develop and pass on the skills needed to increase end user productivity.

PHASE III (GS-335-06, GS-335-07)
CONTENT DESCRIPTION

I. ORIENTATION

a. Product Evaluation

b. Project Management

c. Budgeting

II. ON THE JOB TRAINING

a. How to conduct pre-selection ADP product evaluations

b. Techniques for monitoring and managing ADP Projects

c. Preparation of Documents for Procurement of ADP Products and maintenance of contracts for fiscal year budgeting.

III. FORMAL TRAINING

a. MAPPER Run Design

b. Advanced Office Automation Training

c. Train the Trainer

d. Systems Analysis

e. Presentations and Briefing Techniques

f. FORTRAN Programing

Knowledges, Skills and Abilities to be Acquired

This training is designed to complete training in all of the basic learning areas required for progress toward the GS-334-09 Series and grade. As a result of this training the employee will know how to evaluate the effectiveness of user-oriented ADP Products. The knowledge of how to use the tools of systems analysis and product evaluation will be gained. The employee will also be shown the various techniques for reporting results of testing and evaluation.

The employee will be taught the various skills of managing an ADP Project. Skills involving Project Book Preparation and maintenance, as well as Peformance Monitoring and budgeting will be learned. Various ADP Software Tools will be used in order to increase programing and analysis skills. The employee will also become more capable in the areas of user training and teaching data processing.

THE FORT HOOD

AUTOMATIC DATA PROCESSING

INFORMATION GUIDE

PUBLISHED BY

THE DOIM

INFORMATION CENTER

TABLE OF CONTENTS

PERSINSD
DP OPERATIONS

MILPERCEN

INFORMATION CENTER JOURNAL

OLUME II, NUMBER 1 NOV 1985

THE INFORMATION CENTER

OPEN HOUSE

EDNESDAY 20 NOVEMBER 1985

ROOM 1S67, HOFFMAN II

900-1500 HOURS

THE INFORMATION CENTER INVITES YOU TO STOP BY AND MEET THE STAFF AND TO SEE THE FACILITIES AVAILABLE FOR MILPERCEN USERS. YOU WILL BE GUIDED THROUGH THE CENTER, EQUIPMENT WILL BE DEMONSTRATED, SERVICES WILL BE LISTED, QUESTIONS WILL BE ANSWERED, REFRESHMENTS WILL BE SERVED AND YOU WILL BE ABLE TO REGISTER FOR TRAINING

WHY AN INFORMATION CENTER OPEN HOUSE
by Joseph Beastie

Many events have occurred since the last journal was published. The most significant event has been the conducting of continuous Basic Desk Station Workshops, at the Casey Building, by the entire Staff of the Information Center. That effort reached a peak of over 70 students per week, concluding in September with approximately 1600 students trained. The logistics of that year-long operation virtually shut down most other Information Center services at the Hoffman Building. The staff is back at the office and classes are being given, at the Hoffman Building, at a greatly reduced pace. Now the center can begin to provide many of the more traditional services including: consulting, individual and small group training, contract support, data base querying, product testing and evaluation and publishing information of interest to the end user.

The open house is our way of announcing our return from the all-consuming grind of the Casey building and our way of exhibiting equipment and services. All of the equipment located in the productivity center area is available for your use. If you are trained in the use of this equipment simply come in and go to work. If you need assistance, analysts are available to answer your questions or to arrange training.

THE JOURNAL

Information Centers must publish. This is a generally accepted rule throughout the industry and this is a rule we have, by necessity, broken in recent months. The last journal published was dated December 1984, just about the time our extensive training effort was underway. There were four Journals altogether and they were published monthly. Many people contributed informative articles to those issues, especially during that time MILPERCEN was struggling to implement it's new Local Area Network. Back issues of the Journal are available upon request and there will be a handout available, at the open house, listing all previous articles. Some previous topics included: BECOMMING A MAPPER USER; COMPUTER GRAPHICS(AT MILPERCEN); DOCUMENTATION IN THE INFORMATION CENTER; THE 80X BASIC DESK STATION; SMALL PERSONAL COMPUTERS and many other articles on a variety of subjects.

USER REGISTRATION

This service is one of the most visible functions in the Information Center. It is also one of the most troublesome. A person seeking access to the MILPERCEN computer system and to the data bases must follow an awkward set of procedures before being given a user id and passwords.

1. The user acquires a form 169 from the Information Center and after completing the form, it is forwarded to the MILPERCEN ADP System Security Officer (ADPSSO).

2. The ADPSSO sends a disposition form (DF) to MILPERCEN Support Services (DAPC-ALP-T) requesting them to verify that documentation of the potential users security clearance is on record at MILPERCEN.

3. The users office must also send a DF thru the ADPSSO to Support Services requesting that the user be granted access to SECRET data and also granted a sensitivity level of 2.

Steps 2 and 3 are often the cause of

ne y problems. If, for any reason Support services cannot locate documented evidence of clearance or locate the DF requesting se sitivity level 2, then the users form 16, will be returned with the phrase "No Record" or "No Access" written across the to . Because this is a manual process requiring documents to be in a certain place at a certain time, we are often faced with inconsistent results.

4. When the ADPSSO receives verification of clearance and access from Support Services a user id is established and passwords are supplied to the Information Center to be issued. Passwords are re-issued each quarter.

The Information Center serves as a guide for the user throughout this pro ess. We attempt to resolve problems by tracking the progress of paperwork. However with so many users and so many manual steps this process is often frustrating and slow.

COMPUTER GRAPHICS: WHAT'S NEW IN THE INFORMATION CENTER
by Michele Farmer

There have been many changes and additions to the Information Center over the last few months. Many of the those additions have been in the Computer Graphics area. For the Iconix/Autograf user, the ACT II (Advanced Color Technologies) Ink Jet printer can provide both color acetate and hardcopy capabilities.

In addition to the new graphics printer the Information Center is proud to announce the arrival of the new VideoShow Electronic Slide Show System. VideoShow is a menu driven graphic system which provides the end-user with quick and easy business charts, organizational charts, or custom briefing slides. Currently the charts can be transferred to 35mm slides for a compact easy to transport briefing, or displayed via the ECP 1000 Color Data and Video Projection System (Electrohome) for large auditorium briefings.

For further information or training contact the Information Center. (Or better yet come to the Open House November 20 for demonstrations and signup for training).

TRAINING: COURSE DESCRIPTIONS, SCHEDULES AND REGISTRATION.
by Michele Farmer

When you visit the open house on the 20th of November, pick up a copy of all of the courses taught at MILPERCEN by the Information Center. Handouts will be available, listing courses and their schedules. Registration sheets will be located at the various demonstration areas allowing users to sign up for a particular class or to indicate the desire to attend a course planned for the future.

SYSTEM/ADMINISTRATORS

There are four functions that will be on display at the open house that are not located in the Information Center. These administrator functions are physically located in the same office (room 1s67, Hoffman II) however they are a part of the Distributed Information Systems Office (DAPC-PSO-PL). Visitors to the open house will meet these administrators and be able to ask them questions about their functions and services.

MAPPER COORDINATOR
FUNCTIONS & SERVICES

1. REGISTER USERS INTO MAPPER SYSTEM
2. DELETES USERS FROM THE MAPPER SYSTEM
3. TRAINING: IN-HOUSE CLASSES
   ON-LINE TUTORIAL
4. MONITOR MAPPER SYSTEM
5. DEVELOP RUNS
6. REGISTER RUNS
7. CONSULT ON USER APPLICATIONS

LAN SYSTEM 4 ADMINISTRATOR
FUNCTIONS & SERVICES

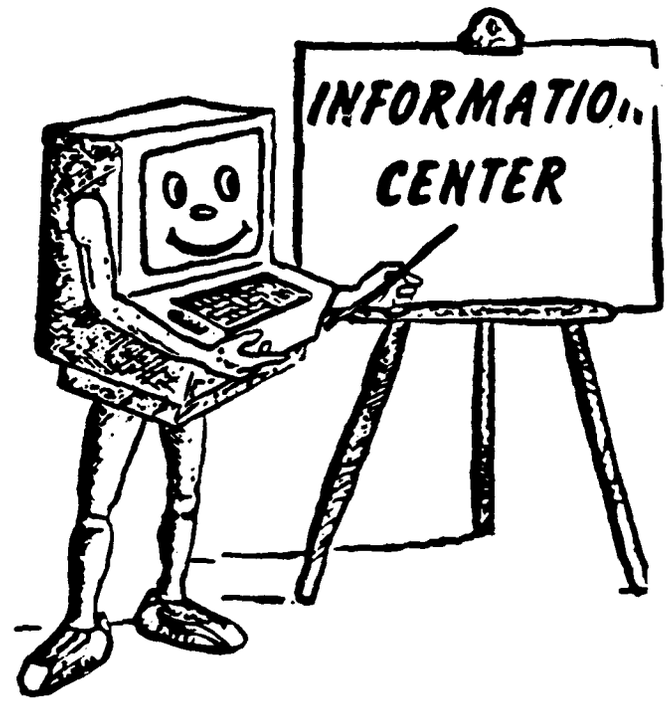
- REGISTER USERS INTO LAN ON SYSTEM 4
- DELETE USERS FROM LAN ON SYSTEM 4
- MONITOR SYSTEM 4 AND RESOLVE USER PROBLEMS
- UNLOCK DOCUMENTS
- MAINTAIN MASTER DIRECTORY
- KEEP TRACK OF EQUIPMENT LOCATION

LAN SYSTEM 3 ADMINISTRATOR
FUNCTIONS & SERVICES

- WORKS WITH DOPS ADMINISTRATORS ASSISTING THEM IN RESOLVING PROBLEMS
- MONITOR SYSTEM 3 AND TRACK PERFORMANCE
- DISTRIBUTE BACKUP TAPES

DOPS COORDINATOR
FUNCTIONS & SERVICES

DEVELOPS POLICIES AND PROCEDURES FOR ADMINISTRATION OF THE DOPS SYSTEMS AT MILPERCEN
CONDUCT DOPS ADMINISTRATORS CLASS
CONSULTS WITH DOPS ADMINISTRATORS TO RESOLVE USER PROBLEMS.



THE INFORMATION CENTER STAFF
(DAPC-POS-PC, ROOM 1S67, HOFFMAN II, 325-9350)

Joseph Heastie	Coordinator
Suzanne Olmsted	Clerk/Typist
Evangeline Davidson	Clerk/Typist(COE)
Jim Griffea	Analyst
Michele Farmer	Analyst
SFC Kerry Falknor	Analyst
Adrian Powell	Analyst
Dusty Harrell	Analyst
SP Greg Hadash	Analyst
Johnny McCarter	Computer Assistant
Evelyn Tyler	Computer Assistant
Carolyn Sliger	Computer Assistant
Eileen Lynn	Computer Assistant

RUSSELL W. GREEN, JR.
Acting Chief, ADP Operations Division
Personnel Informations Systems

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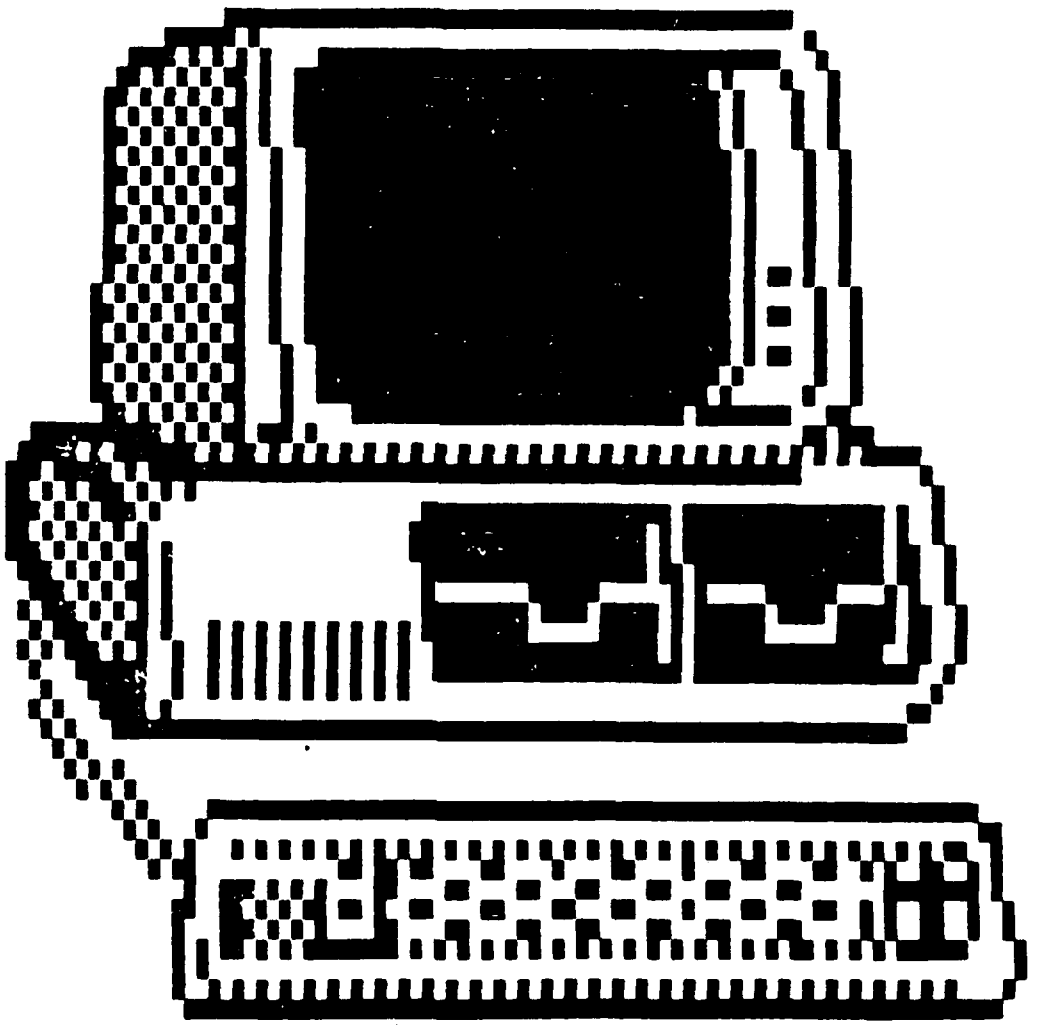
FORT HOOD INFORMATION CENTER

DOIM Information Center



Newsletter #1

DOIM Information Center

Newsletter #1

March 1986

This is the first in a series of quarterly Newsletters from the DOIM Information Center. The Newsletter is designed to assist you in getting the most out of your ADP equipment. Your input - questions, concerns, comments - will be continually solicited.

NEWSLETTER TOPICS

I. Points of Contact

II. Procedures for Getting ADPE Repaired: PROFS, IPS, VIABLE, PC

III. Request for Movement of ADP Equipment

IV. STARNET User (VIABLE)

V. Sharing dBase III Data With Lotus 123

VI. APL Assistance Corner

VII. Coming Attractions

I. POINTS OF CONTACT

The following numbers can save you valuable time and effort if you have problems with your ADP hardware or software or if you have questions about ADP training. Please jot them down in a handy location:

A. Hardware/Software Assistance - DOIM Information Center
Help Desk
287-7312 or 287-3235

B. Training (Scheduling or Information) -

1) Civilian Personnel - Civilian Personnel Office
Mr. Terry Bedsole
288-2015

2) III Corps Personnel - HQ Command, S3
CPT Schrock
287-0127

3) All Other Personnel- Corps Automation Management
Office (CAMO)
MAJ Morgan
287-9558

c. In addition, certain personnel within each activity have been designated as POC's for automation and may provide an internal activity source of information. These personnel are listed in enclosure 1.

II. Procedures for Getting ADP Equipment Repaired

If you are experiencing any problems with your computer equipment (e.g. display, keyboard, modem, printer, coaxial cable, controller, microcomputer) call the DOIM Information Center Help Desk. In order to assist you the Help Desk personnel need to know the system you are using, i.e. the Installation Processing System, VIABLE System, System 34, or a stand-alone microcomputer. Normally a label is placed on your keyboard or terminal that gives your line number, terminal model number and brand, and serial number. These items will further assist us in resolving the problem. In addition we will ask for a point of contact with phone, building, and room number. We appreciate your help in providing us with all this information. It assists us in resolving the problem as quickly as possible. Operational hours are 0730 to 1630 hours, Monday thru Friday. For service after 1630 hours, Saturdays and Holidays, please call the DOIM Machine Room at 287-7578.

III. Request for Movement of ADP Equipment

If you should need to relocate any ADP Equipment, please notify the DOIM Information Center. A DF or PROFS note will suffice. Points to include are current location of equipment, proposed location, point of contact and phone number. If the move is complicated a sketch, attached to the DF, may be appropriate.

IV. STARNET Users

The DOIM Information Center is also your point of contact for problems associated with your CRT, printer, controller, and line. A call to the Information Center Help Desk for assistance could preclude wasting time and effort.

V. Sharing dBase III Data with Lotus 123

If you need to share files between dBase III and Lotus 123 and vice versa, take a look at enclosure 2 it may preclude rekeying of data.

VI. APLDI Assistance Corner

If you want to update literals in an already existing literal file the exercise at enclosure 3 may help you.

VII. Coming Attractions

Double wide, pica, elite and compressed characters for Word Star printing.

Async alternatives for mainframe connectivity.

APL/DI maintenance on your literal files.

POINT OF CONTACT

ACTIVITY	NAME	PHONE #
AFLNO	MAJ BRADBURN	287-0118
AG	MR. ROLLESTON	287-3348
	MR. WEST (STARNET)	287-0092
CID	CPT BORNEMAN	287-2722
CORPS AMO	MAJ DEVINS	287-9554
CHEMICAL	MAJ SHEA	287-0051
CPO	MS. DILLING	288-2020
DCCA	MS. NOBLE	287-5354
DEH	MR. RAYMOND	287-3064
DOL	MR. SMITH	287-8400
	MS. KILPATRICK (STARNET)	287-6720
DPCA	MR. WARREN	287-9568
DPI	MAJ PLUMLEE	287-5783
DRC	LTC BEDELL	287-7095
	MS. SUBIA (STARNET)	287-6468
DRM	MS. TAYLOR	287-3749
EXEC SVC	SGT PARSONS	287-6622
FAO	MR. LEE	287-0508
G1	CPT NOSEFF	287-3353
G2	MR. NORRIS	287-2202
G3	MS. ARNOLD	287-1910
G4	MAJ REID	287-7197
G5	COL SZENDREY	287-4433
HQ CMD	SSG WEIDE	287-5539
IG	SGM DEWEERD	287-7209

ENCL 1

ACTIVITY	NAME	PHONE #
INT AUDIT	MS. FINN	287-9465
MEDDAC	MR. GOTCHER	288-8554
PAO	LTC MILLER	287-3703
SGS	LTC O'KELLEY	287-7806
SJA	MS. GORDON	287-3421
TCATA	MS. CASTRO	288-1237
1 CAV	WO WALKER	287-9262
2 AD	CPT HOTARD	287-3219
3 SIG BDE	CPT COOK	287-8263
6 CBAC	WO1 ROSER	287-2605
13 SUPCOM	CPT WOMACK	287-5110
64 AH	MAJ SATHER	287-2314
89 MP	SSG ANDERSON	287-8010
504 MI	LT PETERSON	288-9866

FILE TRANSFER

Transferring Data From Lotus 123 to dBase III

To transfer data from Lotus 123 to dBase III, you must create a MS-DOS test file in Lotus 123. Then, in dBase III, append it using the SDF Option into an existing data base file that reflects the structure of your worksheet.

IN LOTUS 123

Perform the following set of instructions with your worksheet loaded. User input from the Command Level is underlined.

1. Enter /Print File.
2. Enter Test File Name to Send to dBase III.
3. Enter Options Other Unformatted.
4. Enter Margins Left 0 Return.
5. Enter Margins Top 0 Return.
6. Enter Margins Bottom 0 Return.
7. Quit.
8. Enter Range and Specify the Copy Range.
9. Enter Go Quit to Write the File to Disk.

NOTE !! Lotus 123 Creates a Text File with the .PRN Extension.

Also, ensure that your right margin is wide enough for all the data you plan to transfer.

IN dBASE III

1. Use <Your Database File>. If you do not have an existing database file to append your worksheet into, create one.

2. Append from <Test File>.PRN SDF to bring the worksheet into your database file. Be sure to use the extension .PRN.

Your data should now be in your database file. If this is the first time you have performed this procedure, be sure you review the database file to see that the structure you have made reflects your worksheet. If columns are misaligned or records are truncated, your structure probably needs some changes. To do so, use modify structure, make the changes, ZAP the database file and re-execute the append statement.

TRANSFERRING DATA FROM dBASE III TO LOTUS 123

Transferring data from dBase III TO Lotus 123 is fairly straight-forward. In dBase III, use the copy command with the delimited option to create a comma-delimited file into the current worksheet by using the file import option.

IN dBASE III

1. Use <Your Database File> With an Index, if You Have One.
2. Copy to <Text File> .PRN Delimited to Create the Comma-Delimited Text File. Be Sure You Specify the .PRN Extension for the Output File. Lotus 123 Will not Recognize a Text File With Any Other Extension. If You Need a Subset of Your Database File, do not Forget That the Copy

Command has Conditional Capability. See Page 4-35 of the dBase III User Manual for Further Details.

IN LOTUS 1-2-3

User Input From the Command Level is Underlined.

1. Enter /File Import Numbers.
2. Enter the Name of the Comma-Delimited Text File.

Your Data From the Comma-Delimited Text File Will be Entered Into the Current Worksheet, with Each Column Containing the Contents of a Field From Your dBase III Database File.

APL

This lesson is for people who use a Literal File and wish to change a Literal inside without being forced to rewrite the entire Literal.

A. Before starting, lets get a few definitions down to avoid confusion:

APL ENVIRONMENT	- AN AREA THAT EXISTS IN THE SYSTEM BEFORE APLDI IS LOADED. YOU REACH IT BY TYPING APLSX OR VSAPL.
APLDI	- YOU ARE IN APLDI ONLY IF YOU TYPE)LOAD ALPDI.
APLSX	- AN APL SESSION WITH A TEXT EDITOR TYPE APLSX INSTEAD OF VSAPL TO ACTIVATE THEM.
CONTROL ARROWS	- THE FOUR ARROW KEYS TO THE LEFT OF THE KEYBOARD THEY MOVE THE CURSOR WITHOUT CAUSING THE COMPUTER TO TAKE ANY ACTION.
INSERT KEY	- LOCATED OVER THE "UP ARROW" CONTROL ARROW KEY, IT IS USED TO INSERT CHARACTERS INTO TEXT.
DELETE KEY	- LOCATED OVER THE "DOWN ARROW" CONTROL ARROW KEY, IT IS USED TO DESTROY CHARACTERS, AND ALSO REMOVES THE GAP CREATED BY THE DELETION.
LITERAL FILE	- THE AREA WHICH HOLDS YOUR LITERALS, THIS IS THE FILE THAT YOU BRING IN WITH THE PCOPY COMMAND.
LITERAL	- A STORABLE, RE-EXECUTABLE QUERY THAT IS EASILY IDENTIFIED BY THE DELTA SYMBOL THAT PRECEDES THEM. EXAMPLE: ΔREPORT
LIST COMMAND	- A LOCALLY PRODUCED APL PROGRAM THAT CAN BE BROUGHT INTO A LITERAL FILE SO LITERALS MAY BE VIEWED ALL TOGETHER ON THE SCREEN. IT MAY BE USED BY)LOAD "YOUR LITERAL FILE" AND THEN ENTERING THE COMMAND LIST AND PRESSING THE ENTER KEY.

B. Changing Literals with the APLDI Session Editor:

Here is an exercise to demonstrate the use of the APLDI Editor to allow quick modification of an already existing literal. The best way to learn this exercise is to perform the following example.

1. Log on and wait for the R;xxxxxxxxxxxxx prompt to appear
2. Type APLSX and press the ENTER key

3. Type)LOAD "LITERAL FILE NAME" and press ENTER - Note the "LITERAL FILE NAME" is what you PCOPY in a normal query session.

4. Lets build a sample query to modify

   a. Type ΔSAMPLE ← 'DEMOSALE DIFILE;PROD=CHAIR;COUNT' and press ENTER

   b. Type)SAVE and press the ENTER key

5. Now lets modify sample to count not only chairs, but tables too.

   a. Type ∇ΔSAMPLE and press the ENTER key.

   b. You are now in the editor

      1. Press the insert key

      2. Move cursor with control arrows to the ";" after chair

      3. Type ,TABLE and press the RESET

         -NOTE HOW THE INSERT MODE MOVES THE WORDS AFTER CHAIR-

      4. Press PF3 to leave editor

      5. Type)SAVE and press ENTER

6. Run the new altered literal

   a.)LOAD APLDI and)PCOPY your literal file

   b. Type INQ and press ENTER

   c. Type ΔSAMPLE on the next prompt

   d. The literal should give the following response:

      RECORD COUNT = 844

   -NOTE DEMOSALE DIFILE IS A SAMPLE FILE YOU MAY USE FOR PRACTICE-

C. Conculsion: This was a brief demonstration of the editor function, for further assistance call the Information Center at 287-7312. Also, classes are available in APLDI which covers far more advanced features to assist the APLDI user.

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QUESTIONS (CONT)

Who can use the Center?

The Information Center is available to all personnel who use the MILPERCEN computer center. This includes the following personnel:

- **Managers and Professionals** - can use the Information Center to explore the hardware and software packages available to assist them in their decision making process through production of reports, storing and manipulation of data, and generation of computer graphics.

- **Administrative Personnel** - Employees in administrative roles can use the Information Center to familiarize themselves with Office Automation functions so they can determine their specific needs. It can also aid them in understanding the total capabilities of their present equipment.

- **Computer Specialists** - can use the Information Center to keep up with the state-of-the-art improvements or to learn new application development techniques.

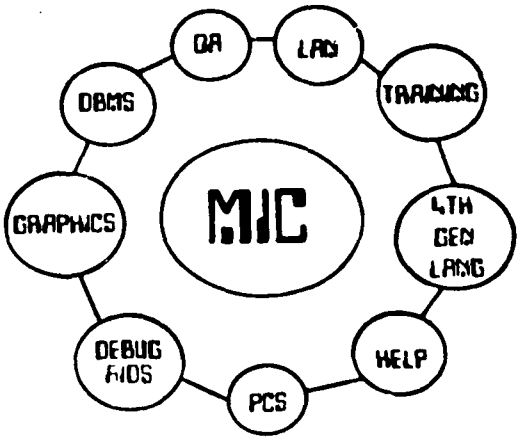
What does it cost?

There is no charge to MILPERCEN employees or proponents for the work related use of the Information Center and its services.

US ARMY

Military Personnel Center

Information Center



PERSINSD

ADP Operations Division

DESCRIPTION

The Information Center was established to provide the MILPERCEN user community with training, consultation and information on commercially available software and hardware. The Information Center supports the end-user from product evaluation and selection, through installation and training.

BACKGROUND

The trend towards placing ever increasing data processing capabilities into the hands of the end-user is presenting new challanges to the data processing community of MILPERCEN. Fourth Generation Systems, Computer Graphics, and Office Automation software packages are examples of user-oriented products presently available to support the end-users' movement into a state-of-the-art processing environment.

The MILPERCEN Information Center recognizes the need to provide users with support, education, and training to encourage utilization of the systems facilities. This in-depth support, which the Information Center must provide to the end-users, will ultimately increase the number of non-ADP professionals within the organization possessing computer literacy skills and abilities.

MISSION

To help the end-user acquire access to the computer system by guiding them through registration procedures. To train the user in the use of automation products designed for independent information processing. To provide a place and to furnish ADP products for users to work with under the guidance of trained consultants. To help the users get answers to their questions and solutions for their problems by adopting their concerns as the Information Center's concerns. To provide a convenient interface between vendors and users for the showing and testing of new ADP products. To publish and distribute information of interest to the ADP end-user.

SERVICES

MILPERCEN's Information Center and its staff provide a variety of educational and support services, including the following:

- **TRAINING** - vendor demonstrations, workshops, tutorials, technical updates, and hands-on experience on a variety of software and hardware.
- **CONSULTATION** - assistance in the evaluation and application of computer technology for professional or administrative use.

SERVICES (CONT)

- **CLEARING HOUSE** - focal point to disseminate information on vendors, equipment, user groups software, hardware, and data base management systems.
- **LIBRARY** - availability of a variety of publications and periodicals specifically related to computer technology.

TECHNICAL STAFF

The staff at the Information Center is prepared to answer questions, gather information, teach classes, and conduct demonstrations of commercially available hardware and software. Their individual backgrounds include experience in program requirements, systems analysis, telecommunications, networking, software, consultation, and human resource development. A network of personnel will provide additional technical support on an as-required basis.

FREQUENTLY ASKED QUESTIONS ABOUT THE INFORMATION CENTER

Where is the Center located?

The MILPERCEN Information Center is located in Hoffman Building II, room 1S67. The phone number for the Center is 325-9350.

FORT STEWART INFORMATION CENTER

The Fort Stewart DOIM Information Center is a service organization dedicated to providing the best support possible to ADP Users whether it be in developing large interactive applications, providing for one-time requirements, training in use of microcomputers, answering a "What do I do now?" plea from a user, or untangling a knotty STAMMIS abend.

The advent of distributed processing, on-line processing and the escalation in use of microcomputers brought about many changes in our organization, and an increase in interaction among the various sections. For instance, a project to establish a local area network has brought together the microcomputer, systems programming and network management sections.

The manner in which user problems are handled is another area which has changed. When all processing was done in the batch mode, a call from the user to report a problem was easily taken care of by referring the call to the analyst in charge of the system. Now it must first be determined whether the caller is an ASIMS, interactive or microcomputer user, and whether the problem involves software, communications lines or hardware before we can provide the necessary assistance.

At present we do not have a help desk as such because of manpower restrictions. We have, however, worked out an interim solution. Users have been supplied with telephone numbers to use for various types of problems.

Current organization of the Information Center is as follows:

A. Supervisor, GS-12.
B. Network Management Section, staffed by one GS-11.
C. Microcomputer Section, staffed by one GS-11.
D. Interactive Applications Section, staffed by:
   One Systems Programmer, GS-12; One Data Base Administrator, GS-12; Four Programmer Analysts, GS-11.
E. ASIMS Section, staffed by:
   One Data Base Administrator, GS-11; One Programmer Analyst, GS-09; Two Programmer Analysts, GS-07; One Programmer Analyst, GS-05 (Overhire).

The Microcomputer Section is responsible for all microcomputer activities. Such activities include:

A. Assist potential users with definition of requirements.
B. Assist users in preparing documentation for acquisition.
C. Set-up and test newly acquired micro hardware and software.
D. Train users in use of hardware and software.
E. Conduct user group meetings.
F. Maintain inventory of hardware and software.
G. Assist users in solving processing problems.
H. Assist users in equipment problem determination and repairs.

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FORT ORD INFORMATION CENTER

The information center is one of the most important initiatives at Fort Ord. The information center serves as the focal point for information network management and maintenance, and the interface between the information community and users. Because most of the information system users at Fort Ord are not experience operators, the training and assistance role of the information center is critical to the success of information systems expansion on the installation.

Six people are now committed to operation of the information center at the present level of activity. This number will increase as the scope of coverage of the information center increases. At present, the information center is providing service to information system users in all functional areas except voice communications. Voice communications will be added as personnel and a supporting physical plant are available.

The information center supports a number of facets of information systems management.

- Training. The effective use of many information systems, particularly those involving new technology, is foreign to the majority of users. An aggressive training program is needed to ensure successful fielding of new systems and sustainment of existing ones. The training program must be multi-tiered to accommodate the needs of users at various levels of proficiency. Since its organization last year, the Fort Ord Information Center has trained over 200 Fort Ord personnel, ranging from installation directors and division primary staff officers to clerk-typists, on basic personal computer operation. A like number have received specialized training on various information systems. This training alone, if contracted to commercial vendors, would have cost the Government in excess of $150,000.00 --more than the entire cost of operating the information center. The training mission is just beginning! As additional and more sophisticated automation and communications systems are introduced at Fort Ord, the training mission will grow several-fold.

- System design and procurement. Together with the Plans Branch of the Fort Ord Directorate of Information Management (DOIM), the information center plays a key role in design and procurement of new or replacement information systems. Plans branch has the responsibility to do long and short term information systems planning for the Fort Ord complex. Plans branch looks to the information center to assist users in requirements definition, hardware and software configuration and acquisition documentation. Also in this process is advice to users on networking issues such as connectivity and interoperability. The information center conducts research of available government and industry sources to maintain awareness of cost

effective, solution-oriented hardware and software to meet user needs. In all acquisitions, vendor maintenance is sought to ensure system reliability.

• Fielding. As new systems are fielded, the information center's effort intensified. Advance training of users is conducted; equipment and software are received, assembled, tested, and placed in the user environment; and follow-up training and assistance are provided to the users as necessary. The information center continues assistance to the users until after the systems are operational and users are able to operate them.

• User interface/continuing assistance. Systems maintenance, systems upgrade and replacement, mission changes, and personnel turnover demand continuing interface with users. The information center serves as the single point of contact for vendor maintenance of information systems user queries and requests for assistance, and update training. When necessary, information center personnel conduct hardware and software troubleshooting and limited equipment repair by component replacement. A limited central library of software and training aids is maintained in the information center for short-term missions and temporary loans pending procurement. Software evaluation is also conducted for users with poorly defined or untried requirements. As required, the information center provides individual consultation or training with experienced users on new requirements, system refinements, productivity enhancements, and development of quality presentation graphics.

• Local-unique systems development. On occasion a local requirement is established for a system or value-added enhancement not available through an Army-standard information system nor a commercial off-the-shelf solution. In this case, the information center serves as the focal point for user interface and development/refinement of the requirement, and shares system development with other elements of the DOIM such as plans branch and systems branch. In those instances where the system required is heavily user interactive, the information center may carry the lead in systems development. Two examples are ongoing at Fort Ord today. One, the Law Enforcement Enhancement System (LEES), is a value-added interactive extension of the Military Police Management Information System (MPMIS). This system, due for implementation in July 1986, will provide a sophisticated interactive relational data base, accessible through user friendly interfaces, to correlate and deliver crime, traffic, vehicle, and personnel information to fixed and mobile terminals. The LEES will also roll up information and perform format conversion for MPMIS reporting. Another system to follow next fiscal year is the Fort Ord Automated Installation Management System (AIMS). AIMS is a similar interactive system using a relational data base, supported by high-quality mainframe graphics, to provide senior management, program directors, and

supporting staff relational data against measurable performance criteria established by DA, FORSCOM, and Fort Ord senior management.

• Network management. Fort Ord has a new wide area network (WAN) riding on the installation coaxial cable television system using a sub-split spectrum architecture. This allows data users to "straddle" cable TV, which operates in the mid-band. The Fort Ord WAN is designed to provide connectivity for all terminals and PCs on the installation having a requirement to communicate. This includes support for the 7th Infantry Division (Light) TACCS terminals when they are operating in garrison. The network is about one-third complete, with some PCs, terminals, and TACCS devices up and running. Completion is scheduled for August, when over 200 users will be on the system. More will follow. The information center provides network management and user assistance. This role will grow as the number of participants increases and the network becomes more complex. Gateways to STARNET and the Defense Data Network (DDN) are planned.

• IBM Professional Office System (PROFS). Many network users are seeking office productivity services such as automated scheduling, calendar management, electronic mail, and file transfer. The information center will administer these services through the IBM Professional Office System (PROFS) to be installed soon. This function will involve access management, establishment of electronic mailboxes, user interface, trouble-shooting and system maintenance. Administration of PROFS and management of the WAN are inseparable tasks in the information center. These functions lie at the center of system growth at Fort Ord.

• Data base management. As interactive systems grow, more and more data bases are created. To maximize information exchange and correlation, and to minimize data storage space, management of file structures, access, and maintenance is essential. This critical function must be performed in the information center because it is user centered -- well managed information is of no value if it does not meet the needs of the end user. Data base structures are closely tied to development of user interactive systems by the information center.

End-user computing and user involvement with other information systems is growing at a tremendous rate, with commensurate growth in cost. Most of the users lack experience and may not be able to clearly define requirements. Without control and knowledgeable assistance to users, we will not achieve the greatest productivity gains for our investment. The information center is the solution. Any installation operating without an information center today, needs to organize one -- and do it right away.