

MINUTES OF THE HOUSE COMMITTEE ON WAYS AND MEANSThe meeting was called to order by BILL BUNTEN at
Chairperson1:30 ~~xxx~~/p.m. on Wednesday, February 9, 1983 in room 514-S of the Capitol.

All members were present except: Representatives Farrar, Mainey and Dyck -- all excused

Committee staff present: Marlin Rein -- Legislative Research
Lyn Entrikin-Goering -- Legislative Research
Bill Gilmore -- Legislative Research
Jim Wilson -- Office of the Revisor
LewJene Schneider -- Administrative Assistant
Charlene Wilson -- Committee Secretary

Conferees appearing before the committee:

Mr. Bill Belleville, Acting Director of the Department of
Information Systems and Computing (DISC)

Ms. Sherry Brown, Legislative Research Department

Others present: (Attachment I)

The meeting was called to order by Chairman Bunten at 1:35 p.m.

The Chairman called to the attention of the committee members two bills which Representative Weaver has asked this committee to introduce and have referred back to the committee. Representative Arbuthnot moved that the bills be introduced by the Ways and Means Committee and that they be referred back to the committee. Representative Solbach seconded. Motion carried.

Chairman Bunten called upon Sherry Brown of the Legislative Research Department to give some background of the presentation for today. Ms. Brown indicated that there are three members of the Ways and Means Committee that served on an interim committee this past summer on data processing and a couple of concerns that arose during that committee were how the legislature and the subcommittees go about evaluating data processing requests that are made by agencies. There seems to be a general concensus throughout the study that in many cases, agencies have not done a very good job of defining or planning or justifying their proposed uses of computers. Another problem is that there has not been a good mechanism, other than looking at just the dollars in the budgets, to project the costs of what all agencies data processing activities will be in the aggregate, particularly long term. One of the conclusions that the interim committee reached was that the planning process that DISC had proposed had the potential for requiring better information from the agencies and to enhance the decision making process on both the part of the legislature and the Governor. The interim committee recommended that the legislature monitor this process for the current year and then communicate the information that they had available to the Ways and Means Committee and to the subcommittees.

Ms. Brown pointed out three things that she felt are very important for the committee to understand when they take a look at the data processing plan. First of all, this report, from DISC's perspective, is more of a compilation of agency requests than it is a plan, per se. This has to do with what DISC's role is in terms of evaluating what agencies are about to do with data processing. Secondly, she stressed that it is important to understand that when they talk about evaluating a request from an agency DISC will not say that they don't think an agency needs to computerize a specific portion of their activities. Even though DISC has the authority to evaluate agency requests they do that only from a technical standpoint and judgment of whether or not automation is going to be worth the costs to the state is the decision that still rests with the executive and legislative branches. Her final comment was that if this committee accepts this as the appropriate role of DISC and if the costs of date processing state-wide are a concern then containing those costs has to be a matter of getting involved in looking at the agency plans and budgets and what they propose to do in the area of data processing. At this point Ms. Brown introduced Mr. Bill Belleville, Acting Director of DISC.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON WAYS AND MEANS

room 514-S, Statehouse, at 1:30 ~~xxx~~ p.m. on Wednesday, February 9, 1983.

Mr. Belleville's presentation was based on the Comprehensive Plan for Data Processing in Kansas Government (In Brief), (Attachment II), and DISC, Division of Information Systems and Computing pamphlet (Attachment III). Mr. Belleville went into how they have gone about developing a plan which would give both DISC and the Governor and Legislature some basis from which to see what agencies are doing and what they plan to do. He indicated that the agencies develop a plan to describe what it is that they would like to do and DISC has a format that they request the agencies adhere to in formulating this plan. The next detail is that the budgeting cycle basically is the document which attempts to execute the plan. Their plan and the budget may not necessarily be the same in terms that the agencies may have high goals but in reality they will not have the budgets to execute what they had in mind. Once the budget is determined and the resources are provided, then they go into the development cycle, the acquisition of equipment and the review of the effectiveness of the program. This is what is referred to as long-term planning by the state.

Mr. Belleville indicated that some of the problems that they have encountered are as follows. First of all they noted very quickly that they did not have adequate data on what existing equipment was available. Also, they lacked data on existing systems in use. They also had a very limited capability with regard to staff and organizations within the agencies.

Mr. Belleville indicated that it is important for the executive and legislative branches to understand that the plan will only be good if the decision makers use the plan. When testimony is being heard from various agencies it would be preferred that a good look be taken at the proposed plan prescribed in that plan. If the agencies recognize that the plan will be used to assist decision makers, then this will reinforce their participation and submission into the plan and this is encouraged by DISC. Basically, this is one of the only ways that the submission process will be made better.

Mr. Belleville indicated that DISC plans to audit two or three agencies yet this year to see how they are coming with regards to their plans and with the existing facilities they now have. They would also like to see the legislative post audit group utilize the plan as they go out to the various agencies and use the information contained in that plan to help DISC.

Following Mr. Belleville's presentation considerable committee discussion was held concerning the proposed plan of DISC.

The meeting was adjourned at 3:15 p.m.

GUESTS

DATE 2-9-83

NAME	ADDRESS	REPRESENTING
1. Cynthia Jones	Topeka	Speaker's office
2. Marshall Gray	Topeka	S.G.
3. Bill Bellville	Topeka	DISC
4. J. CAREY BROWN	TOPEKA	DOA-DISC
5. Jeff Brewa	Topeka	DISC
6. Jim Holt	Valley Center, Mo	KCU
7. Jim Murphy	WICHITA	Kew
8. GARY STOWS	TOPEKA	BUDGET
9. Dave Larson	Topeka	RCC
10. John Kiefhaber	Topeka	DISC
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Atch. I

Comprehensive Plan
For Data Processing
In Kansas Government
(In Brief)

Submitted to the
Information Systems Policy Board
by the
Division of Information Systems and Computing

January 28, 1983

Topeka, Kansas

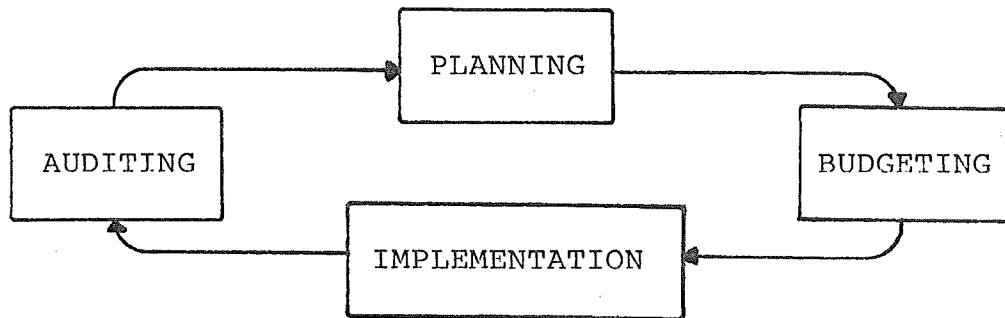
Atch. II

Comprehensive Plan for Data Processing
in Kansas Government
(In Brief)

The Division of Information Systems and Computing (DISC) is required by K.S.A. 75-4708(c) to prepare a Comprehensive Plan for Data Processing in Kansas Government. The first plan produced under the statute covers the period from Fiscal Year 1984 through Fiscal Year 1986. This document is a brief summary of key aspects of that plan. Included are:

- DISC's long-term approach to the accomplishment of the 1980 Legislature's statutory mandate for efficient and effective management of data processing in Kansas government.
- The long range plans of users for improving existing information systems and creating new ones.
- The estimated growth in use of DISC services caused by increased use of existing information systems and planned new applications.
- The resources DISC needs to adequately support existing information systems and planned new applications.

DISC is centrally managing a combination of central and adjunct data processing resources to meet State data processing needs. It is using a four-part process to help ensure that those needs are met in an efficient and effective manner. The process is shown in the figure below.



Planning is the first part of the process. DISC asks major users to annually submit three-year data processing plans which show existing computer applications and applications the agencies plan to develop if they receive the Legislature's approval. DISC consolidates these plans, evaluates its ability to meet needs outlined in the plans, and estimates the additional resources (if any) DISC must acquire to meet the needs.

Budgeting is the second part of the process. DISC assists the Budget Division by evaluating the technical and management merits of agency data processing budget requests. It also compares agency budgets to their plans to ensure that the need for new systems,

staff, and equipment has been evaluated in the planning process before being included in a budget request.

Implementation is the third part of the process. Before agencies acquire additional equipment, staff, or systems, they must receive DISC approval. The review is a technical one to ensure, for example, that equipment requested will do the job planned for it in a cost-effective manner.

Auditing is the fourth part of the process. DISC is required to audit the data processing activities of State agencies to help ensure that they use their data processing resources efficiently and effectively and comply with DISC policies and procedures.

DISC must provide adequate services to all State agencies and programs currently using DISC services while having the facilities and staff to develop, implement, and operate new systems that are projected to improve the efficiency and effectiveness of State government. DISC will have to make several improvements to accomplish this. First, DISC will continue to improve its planning process. DISC will request that State agencies improve the quality and comprehensiveness of their data processing plans which are now being updated for inclusion in DISC's 1985-87 plan. DISC's user agencies must strive for a better planning base to support data processing decision-making. Without better planning by user agencies, DISC cannot meet needs in an efficient and effective manner.

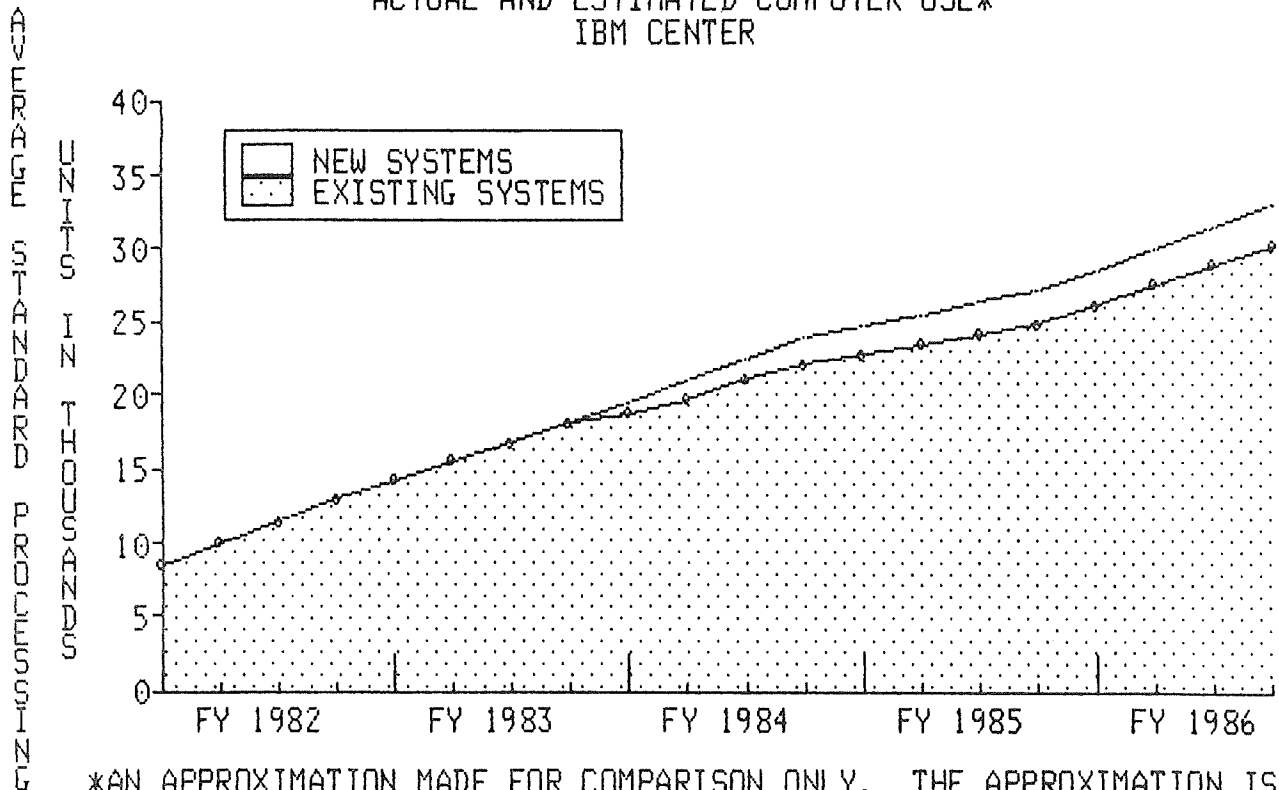
DISC will develop plans to improve the effectiveness and reduce the cost of statewide data communications and to ensure the compatibility of microcomputers and word processors acquired by State agencies in the future. The data communications plan will study the feasibility of consolidating seven existing data communications networks into two networks -- a criminal justice network and an administrative network for all other users. The microcomputer and word processor plan will help to ensure that State agencies acquire compatible microcomputers and word processors which can communicate with DISC mainframe computers. This approach will facilitate potential implementation of an electronic mail/messaging system, allow word processors and microcomputers to be used as terminals (reducing the overall amount of equipment needed), and allow agencies which outgrow equipment to add onto it rather than replace it or transfer it to other agencies. It will also encourage quantity purchases of equipment at lower prices.

Second, DISC will continue to improve its financial reporting and cost system so that user agencies will have access to better information on the costs of the specific DISC services they use. This will allow those agencies to more accurately budget for DISC services and to manage their use of those services more effectively.

Third, DISC will audit the data processing activities of State agencies in order to help ensure that those agencies use their data processing resources efficiently and effectively and comply with DISC policies and procedures. DISC will audit agencies on a three-year cycle similar to Legislative Post Audit's audit cycle and will coordinate its efforts with Legislative Post Audit to maximize coverage while minimizing duplication and overlap.

Fourth, DISC has identified the equipment, software, and staff resources it will need to handle the increased data processing workloads planned by its user agencies. The figure below shows the increased workloads anticipated in DISC's IBM Center as a result of increased use of existing information systems and the addition of new ones currently being developed or planned for development. (DISC has an IBM Center which serves the needs of most State agencies and a UNIVAC Center which serves the State's central administrative needs such as accounting, payroll, and personnel.)

DIVISION OF INFORMATION SYSTEMS AND COMPUTING
ACTUAL AND ESTIMATED COMPUTER USE*
IBM CENTER



*AN APPROXIMATION MADE FOR COMPARISON ONLY. THE APPROXIMATION IS BASED ON DESCRIPTIVE DATA SUPPLIED BY USER AGENCIES AND CENTRAL PROCESSOR USE AS A PERCENT OF JULY 1982 CAPACITY. THE DATA WERE CONVERTED TO STANDARD PROCESSING UNITS USING RELATIVE POWER RATINGS OF IBM AND UNIVAC CENTER COMPUTERS. EXISTING SYSTEMS (COMPUTER APPLICATIONS) INCLUDE SYSTEMS WHOSE DEVELOPMENT BEGAN PRIOR TO FY1984.

Almost 82 percent of this growth will be caused by increased use of existing systems and by the addition of new systems (applications) currently being developed such as the Department of Revenue's Kansas Business Integrated Tax System (KBITS). The remainder will be caused by systems whose development is planned to begin in Fiscal Years 1984-86 if they are approved by the Legislature. Included are such systems as the Department of Revenue's Individual Tax Information Management System (ITIMS), the Education Department's Agency-wide Data Base, the Department of Social and Rehabilitation Services Automated Eligibility System, the Department of Transportation's Computer-Aided Design System, and KPERS Claims System.

Overall, 12 agencies plan to develop 43 new or improved information systems on DISC's IBM computer during FY 1984-86. Those systems will cost at least \$7,662,450 in staff time, computer processing, and equipment to develop. The figure below shows the number of systems each agency plans to develop and their estimated total cost. A detailed list of planned systems is included in the basic comprehensive plan.

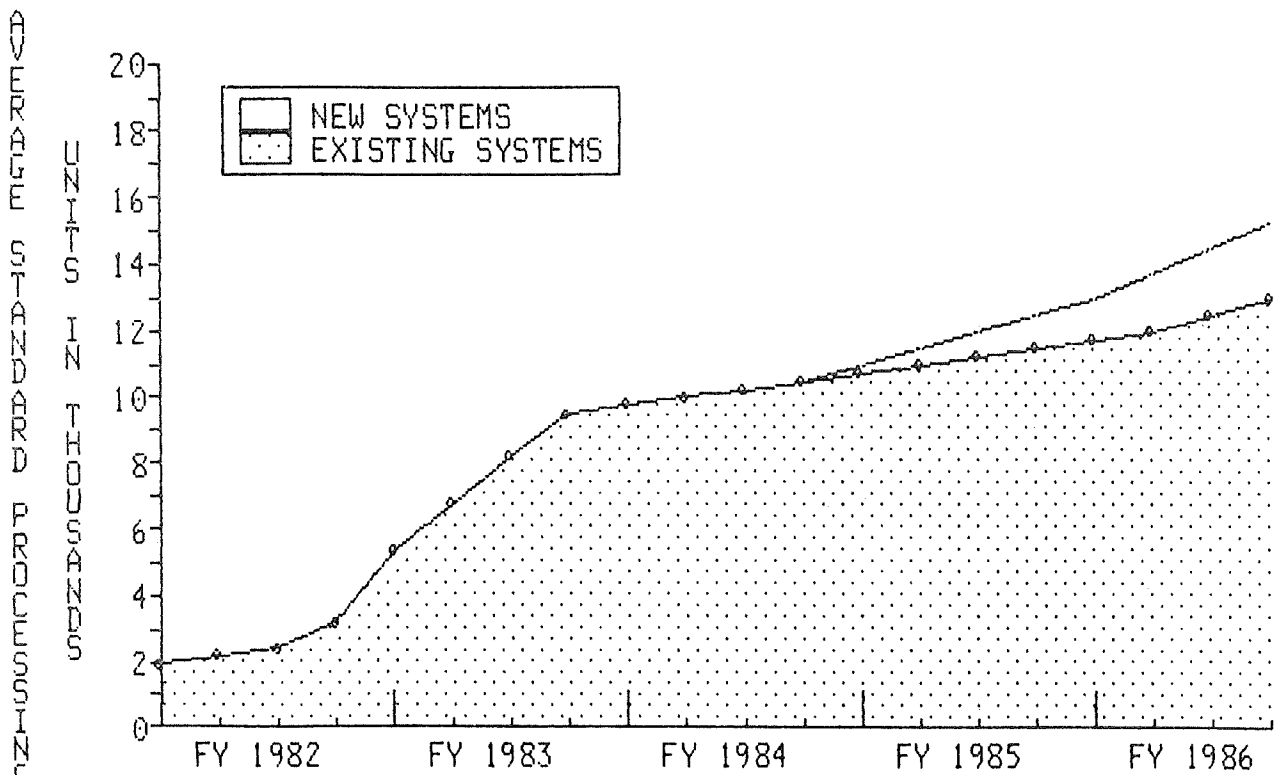
Summary of New and Improved
Computer Applications Planned for Development
on DISC's IBM Computer
FY 1984-86^a

<u>Agency/Application</u>	<u>Estimated Cost^b</u>
Administration	
Telecommunications Mgmt. Info. System	\$ 150,000
DISC Financial Reporting System	175,000
Other (3)	45,000
Agriculture	
Dam Safety	10,000
Corporation Commission	
Motor Carrier Mgmt. Info. System	47,750
Oil and Gas Mgmt. Info. System	23,227
Other (5)	c
Education	
Agency-wide Data Base	109,460
Fish and Game	
Fish Modeling	13,300
Agency Data Base	14,060
Other (4)	10,380
Health & Environment	
Linkage of Health and Environment Data	112,820
Death Certificates	104,601
Birth Certificates	54,395
Health Care Expenditures	1,920
Health Facility Compliance	53,457
Highway Patrol	
Management Information	c
KPERs	
Claims System	180,000
Revenue	
KBITS	1,413,949
VIPS	1,896,567
ITIMS	1,033,312
Severance Tax	114,000
Computer Assisted Property Reappraisal	d
Revisor of Statutes	
ALTER Data Base	50,000
KLIS Data Base	10,000
Social & Rehabilitation Services	
Automated Eligibility	149,652
Other (2)	24,690
Transportation	
Composite Design	100,000
Work Plans	155,000
Graphics (CAD/CAM)	1,500,000
Project Optimization	35,000
Other (3)	75,000
Total	<u>\$7,662,450</u>

- a Only includes applications whose development will start or finish during FY 1984-86.
- b Includes total staff, computer processing, and equipment costs specified by the agencies for FY 1984-86. Those costs are expressed in FY 1982 dollars.
- c Information is not available at this time so impact not estimated. It will be included in the FY 1985-87 plan.
- d System will cost an estimated \$7,082,400 to develop. It's impact on the IBM Center has not been estimated because it will require a separate dedicated computer.

Similar growth in use is expected of DISC's UNIVAC Center. Almost 61 percent will be caused by increased use of existing systems and by completion of the Kansas Integrated Personnel and Payroll System (KIPPS). The remainder will be caused by new systems being planned by several Department of Administration divisions. The growth is shown in the figure below.

DIVISION OF INFORMATION SYSTEMS AND COMPUTING
ACTUAL AND ESTIMATED COMPUTER USE*
UNIVAC CENTER



*AN APPROXIMATION BASED ON HISTORICAL USE AND DESCRIPTIVE DATA SUPPLIED BY USER AGENCIES. EXISTING SYSTEMS (COMPUTER APPLICATIONS) INCLUDE SYSTEMS WHOSE DEVELOPMENT BEGAN PRIOR TO FY1984.

The figure shows, for example, that increased use is occurring in Fiscal Year 1983 as modules of KIPPS are completed and made available. The figure also shows that steady growth will occur in

Fiscal Year 1984 after KIPPS is brought online and that an upward trend will begin again in Fiscal Year 1985 when DISC brings online the new or improved systems being planned by the Department of Administration for Fiscal Years 1985-86. Some of the systems planned for development include GAAP Compliance, Purchasing Management Information, Program Appropriations, Bill Tracking, Setoff, and Centrex Telephone Billing. Overall, they will cost an estimated \$1,433,000 in staff time, computer processing, and equipment to develop. Two other agencies, the Fish and Game Commission and the Kansas Bureau of Investigation also plan to develop KIPPS-related applications during FY 1984-86.

The growth in computer use caused by existing systems and the addition of planned new systems, if they are approved by the Legislature, will require that DISC upgrade, modernize, and add to its computer equipment, software, and staff. The major additions in computer equipment are summarized separately for the IBM Center and the UNIVAC Center.

IBM Center

<u>Fiscal Year of Acquisition</u>	<u>Type of Equipment</u>
1984	Mainframe Computer Communications Controller Disk Storage (10 billion characters) Five Magnetic Tape Drives
1985	Communications Controller Disk Storage (15 billion characters) Laser Printer
1986	Disk Storage (15 billion characters)

The mainframe computer planned for Fiscal Year 1984 will replace a much smaller computer already in operation at DISC. Without the new computer DISC will not be able to continue providing adequate service to existing users. The additional communications controller, disk storage, and magnetic tape drives planned for Fiscal Year 1984 are needed to handle the increased workload caused by agencies converting existing batch systems to online and to handle new applications developed specifically because online data processing was available. Online computer processing gives agencies considerable flexibility in their computer use and allows them to be more efficient and effective but it requires a more extensive use of data processing resources than batch work.

The communications controller planned for Fiscal Year 1985 is expected to provide criminal justice message switching in a less costly and more secure manner. The laser printer is expected to meet the needs of the growing number of online users including the Division of Accounts and Reports (the laser printer will be shared by both the IBM and UNIVAC Centers). Finally, the above listed equipment will help improve the reliability of DISC's service and reduce the amount of downtime its users experience.

UNIVAC Center

<u>Fiscal Year of Acquisition</u>	<u>Type of Equipment</u>
1984	Mainframe Computer Disk Storage (2.8 billion characters) Two Magnetic Tape Drives
1985	Mainframe Computer Disk Storage (1.4 billion characters) Communications Controller
1986	Disk Storage (1.4 billion characters)

The additional UNIVAC mainframe computer planned for Fiscal Year 1984 is needed to ensure that KIPPS will be able to run while existing systems like CASK continue to receive an adequate level of service.

The UNIVAC mainframe computer and communications controller planned for Fiscal Year 1985 are needed to handle the load that will be created by increasing online use of KIPPS and CASK by State agencies and to handle the new systems the Department of Administration plans to develop during Fiscal Year 1985-86 if they are approved by the Legislature. The disk storage is needed to accommodate the additional data being stored as a result of these new online uses.

The increasing online use in both Centers as well as agency demands for additional user friendly software and data base management systems put great pressure on DISC's staff resources. Current staffing levels make it difficult for DISC to adequately handle many of its present responsibilities. Further, some activities which could help DISC operate more efficiently and effectively are not being done because of a lack of time or staff expertise. For example, DISC lacks adequate staff to effectively handle current telecommunications, network management, and disk space management workloads.

DISC plans to remedy these problems as well as meet the needs created by the planned new systems by adding positions over the next three years. The additions are shown in the table below.

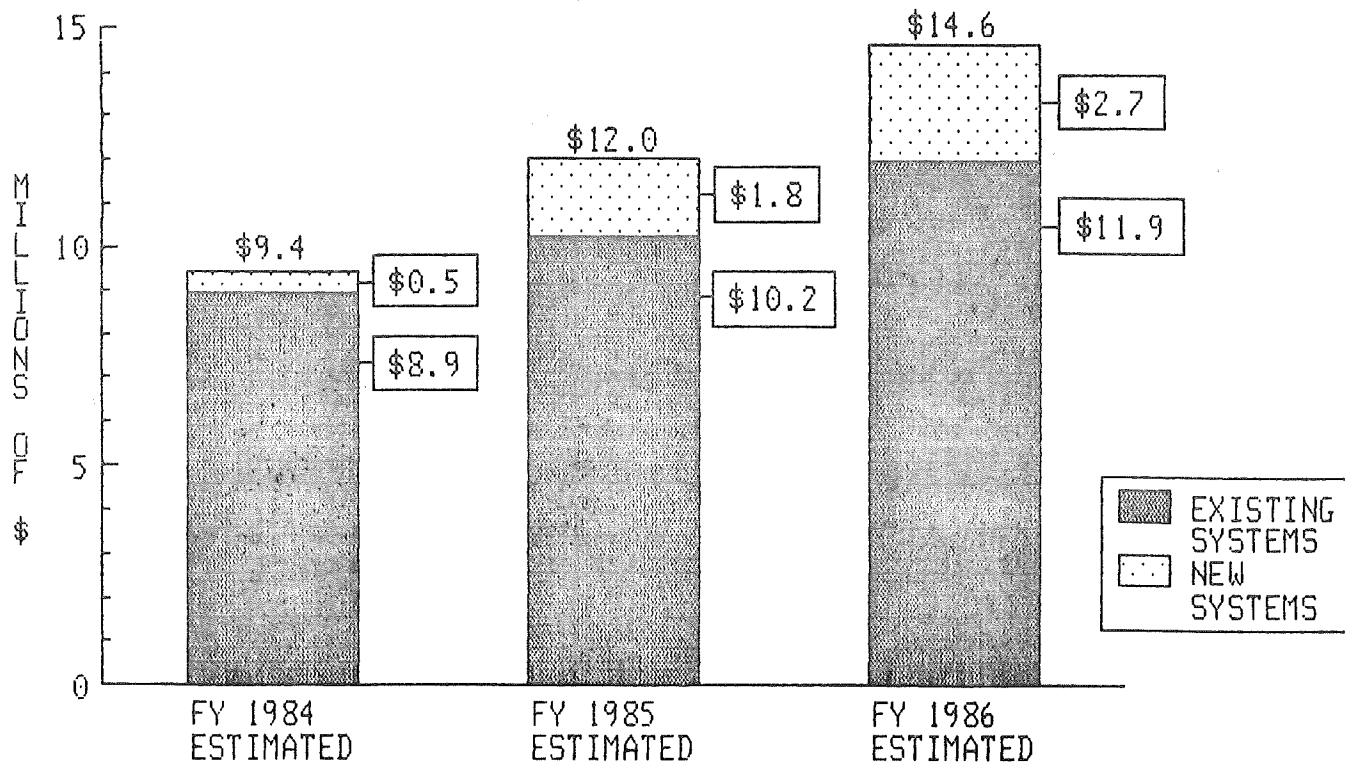
<u>Section</u>	<u>Staff Additions Needed for Improved Management of Existing Systems</u>			<u>Staff Additions Needed for Support of Systems Planned for Development</u>		
	<u>1984*</u>	<u>1985</u>	<u>1986</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Systems Development and Programming	1	0	0	0	4	1
Technical Support	1	4	0	0	1	1
Computer Operations	1	1	0	0	4	0
Administration	1	0	0	0	2	0
Planning and Control	0	0	0	0	2	0
Additions	<u>4</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>2</u>

* Two of the four positions will be obtained through reallocation of existing positions.

Nine of the positions are needed to adequately handle present responsibilities. However, current fiscal conditions will allow DISC to add only four of them in Fiscal Year 1984. Five, including a network control manager, are being deferred until Fiscal Year 1985. The other fifteen positions being added in FY 1985-86 are needed to manage the new systems user agencies plan to implement during the period as well as anticipated growth in use of existing systems. Obtaining the skills and number of positions needed is the key and greatest obstacle to DISC's being able to efficiently and effectively fulfill the State's information systems requirements.

Assuming that the Legislature will approve the increasing use of computers as proposed in agency plans, the additional computer equipment, staff, and other items needed over the next several years will cause DISC's expenditures to increase to \$14.6 million by Fiscal Year 1986. By Fiscal Year 1986, an estimated 18 percent of DISC's expenditures will be for systems planned for development during FY 1984-86. The remaining 82 percent will be for systems whose development was approved by prior Legislatures and began prior to FY 1984. This is shown in the figure below.

DIVISION OF INFORMATION SYSTEMS AND COMPUTING
ESTIMATED SPENDING FOR
EXISTING AND NEW SYSTEMS*
FY 1984 - FY 1986

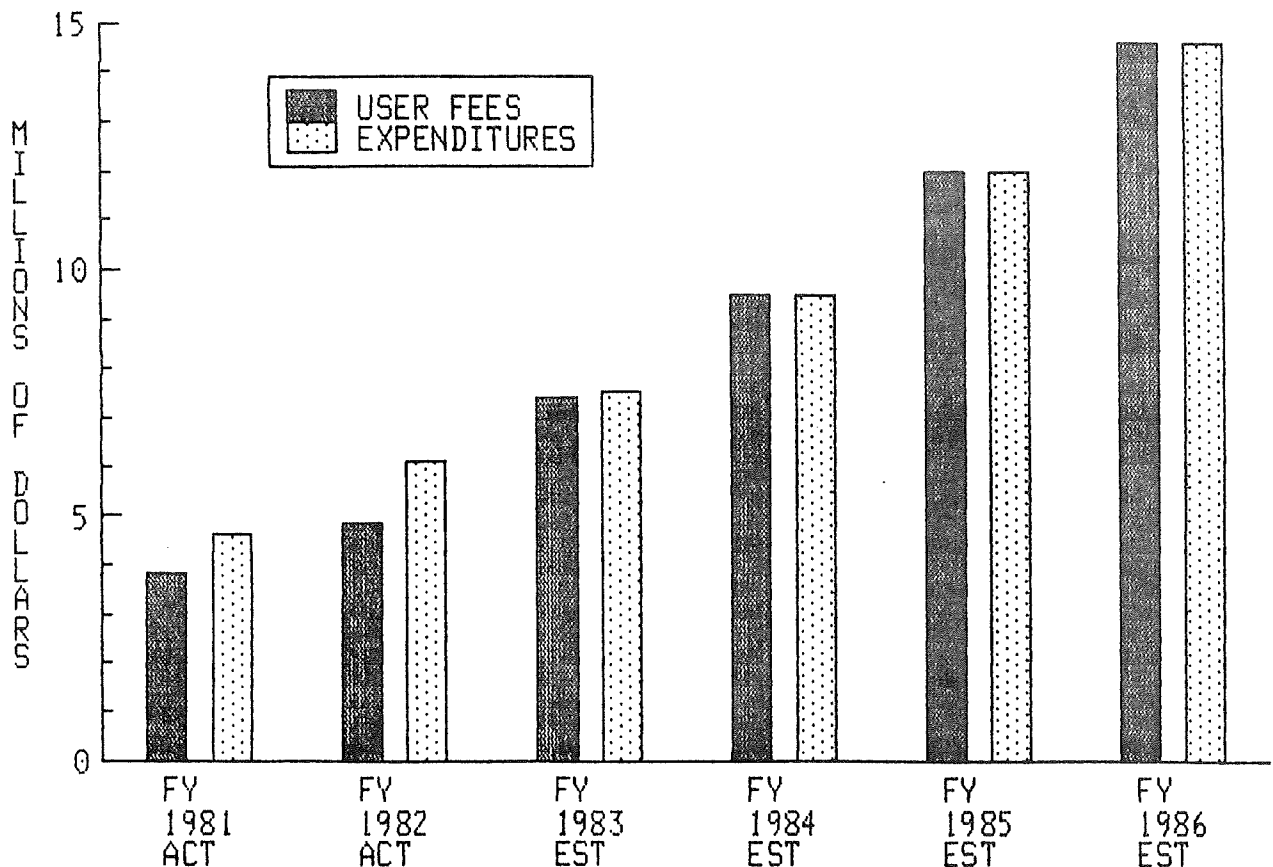


*BASED ON HISTORICAL EXPERIENCE AND EXAMINATION OF INDIVIDUAL AGENCY PLANS. EXISTING SYSTEMS INCLUDE SYSTEMS WHOSE DEVELOPMENT BEGAN PRIOR TO FY 1984.

The increases reflect a continuation of past growth. However, the reasons for past increases are different from those discussed for the Fiscal Year 1984-86 period. There are four reasons for the past increases. First, the UNIVAC Computer Center (which accounts for 33 percent of DISC's total expenditures) was transferred from the Division of Accounts and Reports. Second, DISC's authorized staff increased from 60 to 101 -- in part because of the transfer of staff from the Division of Accounts and Reports to DISC. Third, DISC received increased planning and control responsibilities mandated by the 1980 law. Finally, DISC changed from a small primarily "batch processing" computer service bureau to a large full service online and batch system operating two computer centers. (The centers include eight major hardware vendors and fourteen software vendors.)

As the table below shows, the changes contributed to increases in expenditures. Initially DISC did not pass through the full cost of the increases to users. Instead, at the Legislature's direction, rates were subsidized by using reserve funds -- \$645,723 and \$859,672 in Fiscal Year 1981 and Fiscal Year 1982 respectively. In addition, State General Fund money was provided -- \$160,790 in FY 1981, \$370,400 in FY 1982, and \$227,890 in FY 1983. These subsidies reduced the amount of charges to users required to cover the equipment, software, and staff needed to implement the 1980 law establishing DISC.

DIVISION OF INFORMATION SYSTEMS AND COMPUTING
A COMPARISON OF USER FEES TO EXPENDITURES
FY 1981 - FY 1986



By Fiscal Year 1983, the reserves were gone (except the amount needed for cash flow) so continued subsidies were no longer possible. Users' Fiscal Year 1983 charges for services had to be increased to make up the difference. (It would take 8-10 years to rebuild DISC reserves to the FY 1981 level.) The user share of DISC expenditures will continue to increase faster than total DISC expenditures in Fiscal Year 1984. One of the reasons for this is the elimination, in 1984, of State General Fund money for DISC. (This money will be replaced by charges for services.)

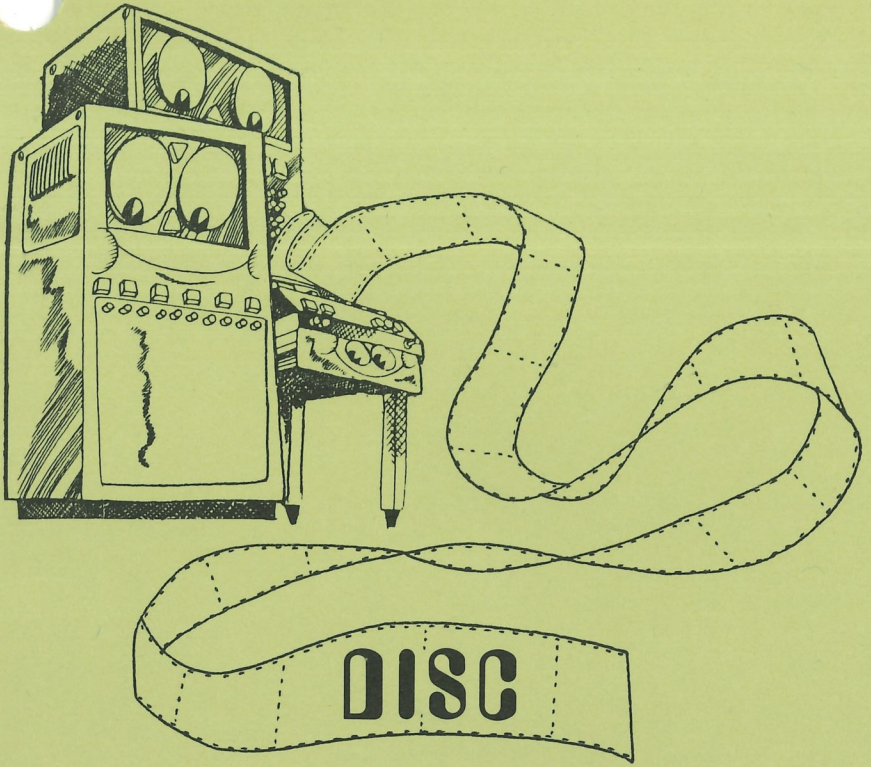
DISC users seem to be pleased with the increased level of service. However, they seem less satisfied with the increased charges which go hand-in-hand. There is pressure to keep the increases in rates and total charges for services down while continuing to improve the level of service.

DISC kept rates down by using reserves when possible and by delaying or eliminating internal changes like adding performance monitoring and security software, a new financial reporting and cost allocation system, and staff. These delays have resulted in DISC denying itself and its user agencies, the kind of information needed to better control costs and improve the efficiency and effectiveness of the service offered. Although DISC currently provides agencies with gross information on computer use, it is unable to effectively demonstrate to users why their cost of service has increased for specific applications. With such information, DISC could better educate its user agencies about the reasons for increased costs and how to control them. DISC plans to do this when its new financial reporting and cost allocation system is completed.

DISC will also continue a renewed effort to orient user agencies to changes in services and ways to use those services more efficiently and effectively. This effort is being made through periodic technical and management meetings and "on-demand" consultation.

Improved services, combined with better financial management information and advice, should help DISC to provide the kinds of services users want, and meet the 1980 Legislature's mandate for efficient and effective management of computer service in Kansas Government.

jb10/CP4/ee



Division of
Information Systems and Computing

Department of Administration
State of Kansas

Atch. III

Division of
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1st Edition - January 1983

Introduction

The Division of Information Systems and Computing (DISC) is the central data processing authority for the State of Kansas. Located on the 11th floor of the State Office Building in Topeka, DISC provides centralized computer services and management.

Statutory Responsibility

DISC was established by the 1980 Kansas Legislature. It was designated the central authority in determining and providing the necessary data processing services for State agencies. Agencies thereby are required to obtain DISC's approval prior to acquiring data processing hardware, software, programs and personnel.

DISC also is responsible for auditing agency compliance with established standards and for reviewing and making recommendations to the Division of Budget on agency data processing plans and budgets.

Organization

Office of the Director

The Director of DISC reports to the Secretary of Administration in his exercise of the authority granted the Division. He is guided by the Information Systems Policy Board (ISPB) in meeting statutory responsibilities and the Information Systems Advisory Committee (ISAC) in fulfilling the information system needs of the Department of Administration.

The Director is supported by a special Planning and Control staff and four assistant directors.

Administrative Services

The Assistant Director for Administrative Services and staff conduct internal business and office management services.

This section supports DISC by performing key functions including budget preparation, accounting and billing, contract initiation and management, mail/distribution control, word processing and clerical services, personnel/payroll administration, purchase control, records maintenance and DISC security.

Agencies interact with this staff to establish data processing service accounts and discuss charges for services.

Computer Operations

The Assistant Director for Computer Operations and staff maintain three large computers and associated equipment (hardware). This section operates several extensive data communications networks connecting local and remote terminals which serve users within their individual offices.

Other users receive computer services by coordinating with the production control staff who handle the magnetic tape, printed forms and other selected media.

Agencies interact with this staff to install terminals, request hardware maintenance, report hardware and communications problems for resolution, request job production and retrieve output.

Technical Support

The Assistant Director for Technical Support and staff install and maintain the computer systems software and related packages that control the hardware.

This section ensures the effective use of the operating systems, communications packages, data base management systems, source program translators/compiler/assemblers, utility packages, user-friendly software, mathematical/statistical packages, job billing packages and capacity management features.

Agencies interact with this staff to access available software packages and be advised on their use, report problems for resolution and receive expert consultation on software facilities and features.

Systems Design and Development

The Assistant Director for Systems Design and Development and staff develop and maintain applications to solve user problems.

This section evaluates user needs for cost/benefit effectiveness, designs, develops and maintains automated systems, prepares and implements statewide development methodology and standards, provides expert consultation in the effective design of systems and advises agencies on obtaining information systems training.

This section also operates a Documentation Library to store system and program documentation and an Information Center providing user-friendly software (including graphics) to help users help themselves.

Agencies interact with this staff to determine if automated tools can help them do a more cost-effective job.

Planning and Control

The Assistant to the Director for Planning and Control and staff provide special assistance to the Director by coordinating the State's long-range automation plan, setting guidelines for the preparation of data processing budgets and reviewing agency data processing plans and budgets.

This section also evaluates the effective use of data processing methodology and standards, reviews the appropriateness of data processing hardware and software (including word processing and mini- and micro-computers) and audits agencies on the proper use of their capabilities and features.

Agencies interact with this staff to plan for their systems needs, obtain approval for hardware and software and receive expert advice and assistance in justifying their needs.

Charges for Services

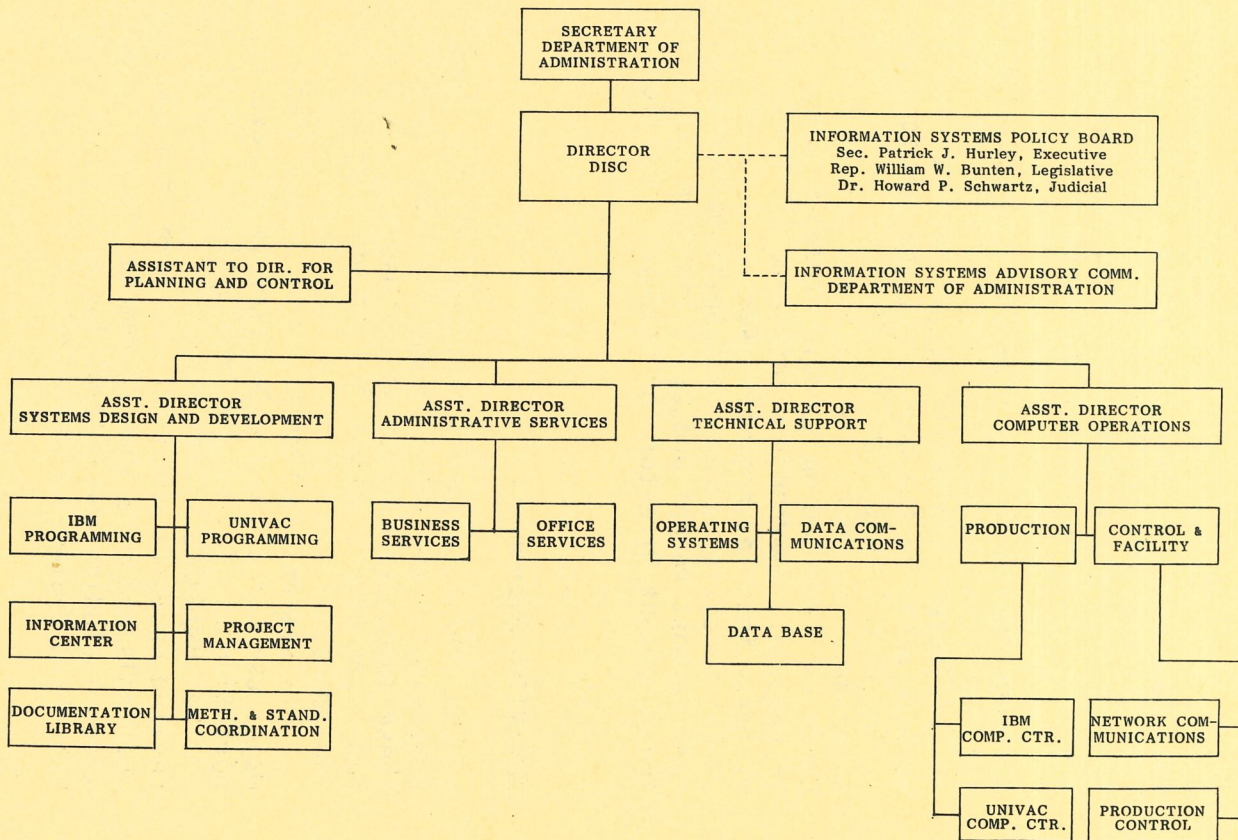
DISC recovers all costs for services rendered to users. Charges are determined by such factors as time of day, analyst/programmer time and software accessed.

Rates are published annually with revisions made only when necessary to recover costs.

For the current rates, see the most recent update of Policy and Procedures Memorandum 103 or contact the Assistant Director for Administrative Services.

DIVISION OF INFORMATION SYSTEMS AND COMPUTING
(DISC)

Department of Administration



The IBM/NASCO and Univac Computer Center has a full complement of data processing utilities, from sophisticated data base/data communication facilities to user friendly software oriented for direct use by agency staff with minimal training.

The Center performs capacity planning and performance tuning to determine current workloads and computer resource utilization. Future requirements are projected in order to tailor hardware and software to optimize the quality of the services rendered.

The DISC Computer Center operates 24 hours per day, seven days per week. Hardware and software maintenance is conducted on Sunday between 6 a.m. and noon. If required, emergency maintenance is scheduled to minimize interference with user on-line activity.

For specific hardware and software availability, see the most recent update of Standard 200 or contact the Assistant Director for Computer Operations.

IBM/NASCO System

The IBM/NASCO system functions via two large processors: the IBM 3033 and the NASCO AS 5000. These computers operate as a loosely coupled system and share direct access devices and other peripheral equipment.

This system provides services to all State agencies. Major users include the Departments of Revenue, Transportation and Social and Rehabilitation Services.

The IBM/NASCO system currently maintains extensive on-line networks consisting of more than 600 remote terminals and more than 20 remote job entry (RJE) sites including the central law enforcement message switching system for the State.

IBM hardware

- 1 - 3033 Model N processor (12 megabytes of memory/12 channels)
- 2 - 1403 Model N1 printers (1100 lines per minute)
- 6 - 3274 video controllers
- 1 - 3705 Model B₂ communications controller
- 1 - 2540 reader/punch

National Advanced Systems hardware

- 1 - AS 5000 processor (6 megabytes of memory/6 channels)
- 1 - Beall channel switch

Storage Technology Corporation hardware

- 24 - 8350 disk drives (317.5 megabytes each)
- 28 - 8650 disk drives (635 megabytes each)

Telex Corporation hardware

- 15 - 8020 Model 5 magnetic drives (1600 bits per inch/6250 characters per inch)
- 1 - 8020 Model 5 magnetic drive (800 bits per inch/1600 characters per inch)

ITT Courier hardware

- 2 - 2722 video controllers
- 1 - VTLC video controller

The IBM/NASCO computers run on the IBM/MVS operating system. Input and output operations are controlled by JES2, an IBM product.

Terminals are scheduled and controlled by one of three IBM Telecommunications Access Methods: TCAM, VTAM and BTAM. On-line files and applications programs are scheduled and controlled by two data communications packages: the IBM Customer Information Control System (CICS) and the CINCOM Environ/1 (E/1). CICS applications programmers use COBOL and NATURAL computer languages while E/1 programmers use TBOL and MANTIS.

In addition, CINCOM's TOTAL and Software AG's ADABAS (data base management systems) are available for systems development. TOTAL operates with both CICS and E/1 while ADABAS operates only with CICS.

Program development productivity aids available are ROSCOE and LIBRARIAN. ROSCOE is used to create and modify program source code on-line. LIBRARIAN stores the source code and job control language statements.

Univac System

The Univac system functions via a Univac 1100/62 multi-processor which allows for continued processing in a degraded mode if one of the processors fails.

The Univac system is primarily dedicated to the Department of Administration. Current major projects include the Central Accounting System of Kansas (CASK) and the Kansas Integrated Personnel/Payroll System (KIPPS).

This system currently maintains an extensive on-line network of approximately 220 remote terminals and one remote job entry (RJE) site.

Univac hardware

- 1 - 1100/62 multi-processor (1048 KWords/10 channels)
- 8 - 0874 magnetic tape drives (1600 bits per inch/6250 characters per inch)
- 2 - 0776 printers (1200 lines per minute)
- 1 - 0176 card reader
- 16 - 8470 disk drives (89.6 MWords each)
- 1 - GCS communications controller

Univac System Software

The Univac multi-processor runs on the Exec 1100 operating system. Primary data communication services are provided through three versions of MAPPER, a user-friendly product designed to facilitate information manipulation and retrieval by users with minimal training.

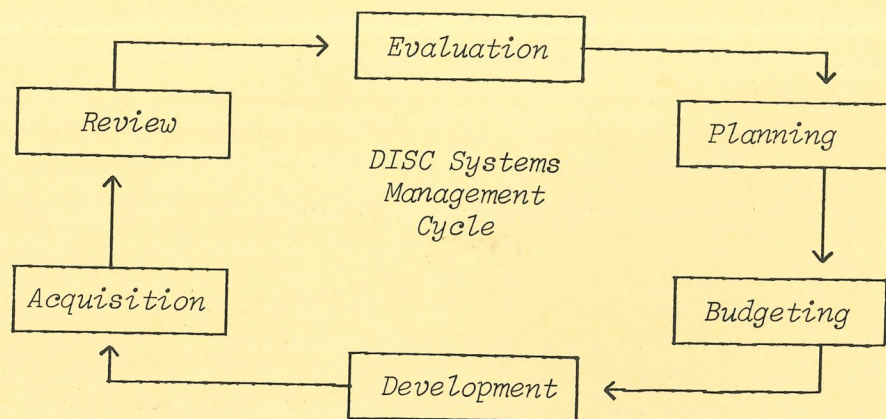
MAPPER is administered through delegation of MAPPER coordination responsibilities, creation of modes and types and routine file re-organization. Proposed record structures are reviewed constantly and users are advised on MAPPER design and coding techniques.

Additional services are available on the Univac system through the use of the Communications Management System (CMS), DMS 1100 (a data base management system) and the Univac Terminal Security System (TSS).

Univac program development productivity is enhanced by the use of Conversational Time Sharing (CTS), an on-line text editor/compiler used to store source code and job control language statements.

Developing Your Information System

DISC can help your agency create an information system tailored to your needs via a management cycle consisting of six phases:



Evaluation

Once the user staff of your agency has determined that an automated system is needed, a detailed written evaluation of your needs should be prepared. The length of the document will depend on the complexity of your needs.

Although this evaluation is normally conducted by the user, DISC can provide special assistance upon request. Such teamwork in the early phases of the cycle can increase the likelihood of achieving the appropriate system.

Planning

Next, your agency should prepare (or update) its data processing plan, detailing the computer resources necessary to establish your new information system.

If appropriate, DISC then estimates the additional resources needed to support the development, maintenance and/or processing of your new system.

All individual agency plans are coordinated by DISC to create a single three-year State Data Processing Plan which identifies the State's total automation needs.

The Information Systems Policy Board (ISPB) annually reviews the State Plan, providing guidance and direction.

Budgeting

An important step in the cycle is obtaining adequate funding to execute your information systems plan. Agencies prepare and submit their fiscal requirements annually to the Division of Budget. DISC then reviews the data processing portion of these budgets for consistency with the overall State Plan.

Following legislative review and adjustment, agencies and DISC finalize their budgets and begin implementing the approved automated systems.

Development

Once funds are allocated, your agency should submit a service request (if appropriate) for the new system, modification and/or enhancement. At this time, DISC will assist your agency to analyze your problems and needs and schedule the tasks to be accomplished.

DISC then designs your system and details how its features work and what they will do. DISC will provide you with a more accurate estimate of your costs at this point. With your approval, the Division then will write the programs, prepare the necessary documentation and test the new application.

In some instances, your agency's needs may be better achieved through the DISC Information Center. If so, the Center Coordinator will assist you in the development and execution of your system.

Hardware and Software Acquisition

Generally, new applications require new hardware and software. If so, DISC will assist your agency to procure and install them.

The procedure for acquiring new hardware and software is detailed in the most recent update of Policy and Procedures Memorandum 104.

Review

Once your new information system is operational, your agency's management staff should review its effectiveness. DISC will assist you if fine tuning is required.

Major modifications and enhancements are implemented by repeating the cycle.

User Help and Information Sources

User Help Desk

Users having hardware or software problems should report them to the User Help Desk. Any problems that cannot be resolved immediately will be forwarded to the appropriate technician.

The purpose of the Help Desk is to provide change control and problem tracking to assure more reliable and consistent computer services to DISC users.

Information Center

The Information Center provides users the opportunity to develop and execute their own systems applications through the use of computer productivity packages. Obtaining assistance from the Center will help reduce the need for additional programming resources and eliminate data processing backlog within the user agencies.

Computer packages available include text processing, on-line training and user-friendly software.

Other services of the Information Center include product education, technical and operational support, problem resolution assistance and general consultation.

Contact the Information Center Coordinator for a copy of the Information Center Handbook and other assistance.

Production Control

User agencies which do not have a production control staff must schedule their batch production jobs through the DISC production control staff. Job submissions must meet pre-determined production schedules.

The DISC production control staff maintains two magnetic tape libraries. The Univac library is managed by the DISC tape librarian and contains approximately 1,000 reels of tape in active status.

The IBM/NASCO library has approximately 18,000 reels of tape in active status and is managed by the following agency tape librarians:

Series T002000 - T009999 DISC
T010000 - T019999 Social & Rehabilitation Services
T020000 - T029999 Transportation
T030000 - T039999 Revenue

In addition, DISC operates two secured off-site magnetic tape storage vaults which are available to users.

Documentation Library

The Documentation Library provides a central location for all system and program documentation implemented by DISC. Documentation submitted to the Librarian is verified for completeness and accuracy before being added to the library inventory. Access to the documentation is controlled by the Librarian.

In addition, various software manuals and all DISC publications to users may be obtained through the library.

For more information, contact the Documentation Librarian.

User Meetings

DISC conducts periodic meetings for all State agencies who use DISC services. From these meetings, user groups have been formed around specific software packages to improve the ability of users to utilize DISC data processing resources.

These smaller groups meet periodically to share information and foster cooperation among user agencies. They also provide DISC with feedback from the user community.

The MAPPER user group is the largest and consists of all software coordinators for projects using MAPPER applications. These coordinators provide the interface between actual users and those who develop and support the application of MAPPER.

Similar user groups have been formed around the data base management systems and ROSCOE/LIBRARIAN software.

DISC Publications

Policy and Procedures Memorandums (PPMs) inform user agencies of established DISC policies and procedures.

Standards are basic tenets established or adopted by DISC which remain relatively unchanged over time. They closely resemble PPMs in content but are somewhat more technical.

Guidelines provide a how-to approach to users on compliance with the policies set out in PPMs and Standards. Practical examples often are included.

Bulletins announce short-term alterations to normal operating conditions. They normally have a definite expiration date or a clear short-term purpose. Bulletins also announce upcoming events of potential importance to the DISC user community.

Standard Operating Procedures (SOPs) set forth internal policies and procedures for the DISC staff and do not have a direct impact on users.

Copies of these publications may be obtained from the Documentation Librarian.

DISC Directory

Main Office 296-3343
 Director
 Assistant Director for Administrative Services
 Assistant Director for Computer Operations
 Assistant Director for Technical Support
 Assistant Director for Systems Design & Development
 Assistant to the Director for Planning & Control

Administrative Services 3343
 Reception/Office Services 3343
 Business Services 4111
 Personnel Services 2772

Computer Operations 3343
 IBM/NASCO Computer Center 3139
 Facility Supervisor
 Production Supervisor
 Univac Computer Center 7867
 Facility Supervisor
 Production Supervisor
 User Help Desk 2310
 Production Control 5267
 Systems Status (recorded message) 2300

Computer Operations Managers
 IBM/NASCO & Univac Operations 2699
 Production Control & Physical Facilities 2927

Technical Support 3343

Systems Design & Development 3343
 Methodology, Standards & Training
 Coordination 4113
 Information Center 2323
 Documentation Library 2514

Planning & Control 3343