

NBS TECHNICAL NOTE 916

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

Software Exchange Directory For University Research Administration

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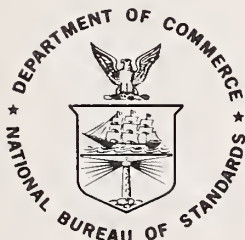
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PREFACE

We wish to thank all the respondents who contributed in any way to the contents of this report and Directory. Many man-hours of effort are represented by the responses from the institutions that have entries in the Directory or contributed statistical information. The decision not to send us information also, in many instances, involved a detailed appraisal of administrative systems in the light of the survey questions so that even those not appearing in the Directory still contributed time to this undertaking.

We also wish to thank all those who advised us during the development of the survey instrument. In particular, the comprehensive suggestions of our consultants and the validation efforts of our test schools were of immeasurable value.

A special thank you goes to Dr. Thomas C. Lowe, Chief of the Systems Architecture Section, for his valuable suggestions throughout this undertaking.

It is our hope that this report and Directory will be of use to the university research administration community in saving time and money.

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SOFTWARE EXCHANGE DIRECTORY
FOR
UNIVERSITY RESEARCH ADMINISTRATION

by

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Gloria R. Bolotsky

ABSTRACT

The Institute for Computer Sciences and Technology (ICST) at the National Bureau of Standards (NBS) has developed a Software Exchange Directory for University Research Administration under a contract with the Research Management Improvement Program (RMIP) at the National Science Foundation (NSF). The one hundred Universities and Colleges receiving the largest Federal funding for research and development were sent an Office of Management and Budget (OMB) approved survey instrument developed for this purpose at ICST. Seventy-five institutions sent responses suitable for 83 Directory entries under Administrative Information and 315 Directory entries under Software Package Summaries. An administrative entry contains information on the reporting unit, the basic administrative structure and parameters, computer usage, automated functional areas, and comments. A package entry contains a functional description, software and hardware characteristics, history, availability and comments. The administrative entries have been indexed by funding size, size of research staff, number of Federal granting agencies, and number of contracts and grants awarded in Fiscal Year 1974. The software packages have been indexed by function, computer used and language used. The detailed entries and indexes should help open communication channels for this community of computer users and thus maximize transferability of these programs between institutions. They also draw a comprehensive state-of-the-art picture of this area of computer use.

Key Words: Directory, equipment management software, fiscal administration software, grant/contract software, personnel management software, program management software, proposal/award software, research administration, software exchange, software summary, software survey, space management software, university systems.

PART I

THE SURVEY

1. INTRODUCTION

The Institute for Computer Sciences and Technology at the National Bureau of Standards undertook the development of a Software Exchange Directory in the area of university research administration in July of 1974 for the Research Management Improvement Program at the National Science Foundation. Such a Directory had never been attempted before, but it was felt that this type of exchange of information could prove very useful to the university research administration community by (1) saving many man-hours of work that would otherwise be used in developing the same programs at different institutions, and (2) yielding a state-of-the-art overview in this area. The approach involved deciding upon appropriate data to be collected, developing a survey instrument suitable for collecting that data, validating and improving this instrument by testing on several of the institutions to be queried, obtaining Office of Management and Budget approval for the survey instrument, and, finally, sending the survey instrument to the list of one hundred institutions suggested by NSF.

It was decided that information of value for the Directory would consist of descriptions of the administrative environment in which automated research administration programs were being used and the summaries of the software packages themselves. Seventy-five institutions sent in responses satisfying these criteria and it is these responses that make up the 315 Software Package Summaries and 83 Administrative Information entries. Although fiscal administration programs and proposal/award information systems make up the bulk of the response, it was felt that all functional areas reported should be included since the untried aspect of this type of directory precluded a prediction of which would be useful and which not.

Appendix F contains a form for return of constructive suggestions concerning the content and structure of the Directory. It would be helpful for future directories if the reader would fill it out and return it.

The remainder of Part I of this report is devoted to the survey methodology, an overview of the information collected, and conclusions concerning this area of computer utilization.

2. SURVEY METHODOLOGY

2.1. The Survey Instrument

2.1.1. The Software Package Data: Initially, the investigators researched the manner in which software packages are in general being reported for exchange purposes. References 19-25 contain a comprehensive list of the publications explored for this purpose. Based on this research (and various sample questionnaires on this subject (see ref. 11-18)), the investigators drew up a list of software package properties which the Directory might include. These consisted of (1) software features such as function, processing mode, data base structure and access method, language used and security protection, and (2) hardware/computer system features such as computer, operating system, data base management system, storage needs, tape/drum/disk requirements, I/O needs, and other peripherals. The history of the package (such as who developed it, what other languages it has been translated to and who else uses it) and availability information would provide further information useful for transferability assessment. All of this, plus an Instruction Sheet defining many of the terms, went into Part II of the survey (see Appendix E.8).

2.1.2. The Administrative Data: Further contemplation of the overall objective of the Directory led to the conclusion that in order to maximize the transferability of research administration software systems it would be equally important to describe the administrative environment in which the reported software packages were being used. This led to the development of a list of administrative features that could be of interest to the user of the Directory. Questions on administrative structure (centralized, decentralized but within, decentralized but outside), administrative parameters (such as number of grants, contracts, number of full time equivalent (FTE) staff, etc., computer usage, and organization of administrative functions for Federally sponsored research were then developed. These questions, with an Instruction Sheet defining key terms, made up Part I of the survey (see Appendix E.6). In order to assist the respondents in answering Part I, question 4 on the automated administrative functions and in selecting appropriate software packages for Part II, a Guide to possible broad functional areas and functions for research administration was drawn up and included with the survey (see Appendix E.9).

2.1.3. The Consultants: While the initial form of the survey instrument was being developed, contact was made with individuals from CAUSE*, NCHEMS**, and NSF who might provide some useful suggestions. CAUSE compiles an exchange of information on general administrative systems at the Universities; NCHEMS provides an exchange on planning and management tools for University Administrators, and NSF has a long experience in conducting surveys at Universities. These conversations all led to the same conclusion, that the current effort would be breaking ground in an unexplored area of computer utilization.

In order to broaden the base upon which to develop the survey, the investigators called in five University consultants with diverse backgrounds to critically review the survey instrument (see Appendix E for the list). The consultants consisted of an Assistant Treasurer, a Director of a Computer Center, an Assistant Deputy Chancellor for Computer Applications, a Business Administrator, and an Assistant Vice-President for Health Affairs, Planning and Analysis at a Medical Center. After taking into account their many useful suggestions, the survey instrument was ready for testing. It was given the title "Administration/Management Software Survey for Federally Sponsored University Research."

2.1.4. The Test Schools: Six test schools were selected after obtaining the approval of each. These schools represented a suitable distribution along five parameters: size of student body (small - less than 10,000, medium - 100,000 to 25,000, large - greater than 25,000), affiliation (public or private), broad administrative structure (single institution, multi-campus, institutional system)***, size of Federal r&d funding****, and geography. They are:

- o University of California, Berkeley (large, state, member of multi-campus institution)
- o Saint Louis University (small, private, multi-campus institution)
- o Mt. Sinai School of Medicine (CUNY) (small, city, member of multi-campus system)
- o Oregon State University (medium, state, institutional system)
- o University of Pennsylvania (medium, private, single institution)
- o University of Washington (large, state, single institution)

*CAUSE stands for College and University System Exchange. See Footnote [3] in the Guide to the Directory for further information

**NCHEMS stands for the National Center for Higher Education Management Systems and is a part of WICHE, Western Interstate Commission for Higher Education.

***See reference 1, p. xii, for further discussion of these terms.

****Using Table B-11 in reference 2. See Appendix E.3 for copy of Table B-11.

Their responses, in combination with a second review by the consultants, led to some minor modifications of the survey instrument. The final form of the survey, in two parts, with its instruction sheets, may be found in Appendix E with copies of the accompanying cover letters, function guide, acknowledgement post card, respondent list, and question and answer sheet. It was this survey packet that received approval from OMB for distribution.

2.2. Collecting the Data

In mid-April of 1975 the survey packet was ready for distribution. In anticipation of receiving more than one package summary from a single institution, two Software Package Summary questionnaires (Part II of survey) were included with each packet. The respondent list consisted of the one hundred universities and colleges receiving the largest amounts of Federal Funding in FY74*. The survey was sent to a high level individual at each institution with a request that it then be sent to all offices at the institution that administer research. It was expected that Part I would, in general, be filled out by administrators and Part II by computer personnel. Although the acknowledgement card was used by many institutions, an active telephone follow-up program was also initiated.

3. OVERVIEW OF DATA COLLECTED

3.1. Administrative Data

3.1.1. The Responses: Of the 100 institutions queried there were only 4 at which an appropriate contact for a response was not made. Of the remaining 96, 21 did not contribute information for entries in the Directory. Of these 21, 8 had no programs to report, 3 had highly centralized systems and decided their programs were inappropriate, 6 did not have the resources to compose a suitable response concerning their programs, 2 were in transition, 1 had old systems on an IBM 1401 and decided they were inappropriate, and 1 had only general administrative systems and these were already reported to CAUSE**. Of these 21, however, 4 did contribute some information suitable for inclusion in the administrative statistics to be discussed shortly. These institutions are Tufts University, St. Louis University, University of New Mexico, and the University of Tennessee, Knoxville.

3.1.2. The Reporting Units: Among the 75 respondent institutions listed in the Directory, there were 83 respondent offices. Among these 83 responses and the four partial responses, 49 were centralized with the general administration of the institution, 28 were decentralized from but within it, 6 were decentralized from and outside it and 4 had no response to this question. A check on the respondent offices indicated at least 41 with the word 'research' in their titles and 19 with 'contracts and/or grants' thus indicating that the appropriate offices at these institutions were indeed being reached.

3.1.3. Administration Parameters: Index B contains four sub-indexes which list the respondent offices in order of reported funding size (Index B.1), number of contracts and grants (Index B.2), number of Federal funding agencies (Index B.3), and size of FTE staff (Index B.4). The monies shown in Index B.1 have a parenthesis indicating whether the money quoted is the funded or expended amount and what activity it is for (r&d, training, health services, and/or construction). The information was collected in this manner since our consultants advised that many institutions found it easier to extract funded rather than expended money figures and general Federal funding rather than solely r&d figures from their fiscal administration information. It was felt that reporting the funding information in this manner would at least give an upper bound for the r&d figures at each institution. Indexes B.2, B.3, and B.4 can be used directly to locate institutions with particular sizes of the parameters for these indexes. It is interesting to note that the average reported funding is 29.9M dollars, the average research staff 1270, the average number of Federal agencies 38, and the average number of grants/contracts 680.

3.1.4. Computer Usage: Since the particular computer used is an essential factor in the exchange of software, Index C lists the software packages by computer used. No separate tally was made of the computers reported in the administrative part of the survey. An interesting statistic was gathered on the reported use of networks: fifteen respondents indicated use of a computer network for their automated research administration activities. The six networks named were MERIT, TUCC, UNI-COLL, Indiana University System, New Jersey Educational Computer Network, and Southwestern Ohio Regional Computer Center (SWORCC). See Table 1 for the matching institution numbers and names.

*See Appendix E.3 for list (Table B-11 in reference 2).

**See Guide to the Directory, Section 4.3.

Table 1. Institutions Using Networks

Directory Entry Number	Institution	Network
10.	U. of Southern California	--
24.	Indiana U., Bloomington	Indiana U. System
25.	Indiana U., Indianapolis	Indiana U. System
26.	Purdue U.	(CICS-oriented)
29.	U. of Kentucky	--
40.	U. of Michigan	MERIT
41.	Wayne State U.	MERIT
43.	U. of Missouri	--
46.1	Rutgers U.	N.J. Educ. Comp. Net.
50.	Rockefeller U.	(at NYU)
51.1	State U. of New York, Research Foundation	--
53.	N. Carolina State U., Raleigh	TUCC
55.	Ohio State U.	--
56.	U. of Cincinnati	SWORCC
62.	U. of Pennsylvania	UNI-COLL

3.1.5. Administrative Functions for Federally Sponsored Research: A tabulation of the automated functions performed solely for research administration by our respondents* indicated 7 on fiscal administration, 213 on financial accounting, 47 on planning and budgeting, 31 on indirect cost rate/fringe benefit rate, for a total of 298 reported on some aspect of fiscal administration. The response in another important category for this study was 53 on grant/contract information systems. The remaining 8 automated categories may be found tabulated in Table 2. The respondents also indicated that they will be automating in the following areas: 1 on general fiscal administration, 17 on financial accounting, 14 on planning and budgeting, and 11 on indirect cost rate/fringe benefit rate, for a total of 43 on fiscal administration; and 31 on grant/contract information systems. The other 8 categories to be automated may again be found in Table 2.

Table 2. Research Administration Functional Areas--Automated and to be Automated--
As Reported by the Respondents

	Functional Area	Automated	To Be Automated
1.	fiscal administration	7	1
1a.	financial accounting	213	17
1b.	planning and budgeting	47	14
1c.	indirect cost rate/fringe benefit rate	31	11
2.	equipment and specialized research facilities	50	7
3.	procurement	39	10
4.	space	58	7
5.	personnel management	31	18
6.	library support	36	3
7.	grant/contract information system	53	31
8.	cost sharing	16	8
9.	program management	29	12
10.	audit	11	2

Although a majority of the above automated functional areas were reported as general (G)* and used for both Federally and non-Federally (B)** sponsored research, some functional areas and functions were reported strictly for research use (R)** and (B). These were, in descending order of number reported: proposal and agency monitoring (under grant/contract information system), grant/contract information system, cost sharing, records management (under cost sharing), multi-campus proposal/award communication network (under grant/contract information system), time and effort reporting (under financial accounting), historical and current expenditure analysis (under planning and budgeting), cost control (under program management), indirect cost/rate fringe benefit rate, equipment and specialized research, and personnel management. Just a handful of programs were reported as used only for Federally sponsored research (F)**. It should also be added here that in response to Question 5 in Part I of the survey, 55 respondents reported they did not have separate programs for administering non-Federally sponsored research as compared to 17 that did have such programs. The conclusion then is that the majority of research administration programs handle both Federally and non-Federally sponsored research.

*See Appendix E.9 for a copy of the Guide to these functions.

**See Guide to the Directory, Section 3.2, for further remarks on these abbreviations.

3.1.6. Administrative Comments: The most frequently reported problems, in descending order of frequency, were (1) lack of technical personnel, (2) software difficulties, (3) human errors and relationships, (4) difficulty of separating research administration from general administration, (5) need for system redesign, (6) the lack of timeliness of programs and data, (7) declining administrative budgets, (8) data entry problems, (9) control and coordination of systems, (10) changing requirements imposed by institutions and Federal agencies, (11) going to a new system, and (12) not using encumbrance accounting. It should be noted here that the long comments were voluntarily contributed by individuals at their respective institutions. Their purpose was to describe their institution's approach to research administration. Taken together, these comments provide some excellent insights into the state of the art.

3.2. Package Summaries

3.2.1. Function Distribution: Of the 75 institutions in the Directory, 66 sent in one or more packages from one or more respondent offices for a total of 315 package summaries. Index A is a Hierarchic Function Index with an expanded set of functional areas and functions, based on the function Guide and the package descriptions submitted by the respondents. Note that functions 8 (Data Bases), 10 (Report Generator), 13 (Time Sharing), and 15 (Network) are support systems growing out of the automation process itself. Table 3 is a tabulation of the number of packages submitted under each member of the new set of functional areas. As discussed in Section 3.1.5, fiscal administration and proposal/award information systems were the most heavily reported package types.

Table 3. Functional Areas Tabulated in Descending Order of Number of Packages Reported

Functional Area	Number of Packages	Functional Area	Number of Packages
1. Fiscal Administration	194	9. Library Support	11
2. Proposal/Award Information System	60	10. Report Generator	10
3. Space	30	11. Student Records	9
4. Personnel Management	25	12. Cost Sharing	6
5. Equipment	23	13. Time Sharing	6
6. Procurement	21	14. Internal Audit	4
7. Program Management	21	15. Network	1
8. Data Bases	15		

Although 315 packages were submitted by the respondents the total number of packages reported in Table 3 is 436 since many packages performed more than one function. Highly centralized institutions, using various coding schemes, generally imbed their research administration information in their general systems rather than create separate systems.

3.2.2. Other Traits: Of the 315 packages submitted, 44 use interactive processing while the rest are run in batch mode. At least a half dozen more are going to interactive update and inquiry in the near future. Security protection of at least one or more types were reported used by 244 of the packages. Operating system and terminal security were well represented in these results. Integrated data bases (as opposed to partially integrated and non-integrated) were reported in 68 of the package summaries. Data base management systems were reported used by 55 of the packages. Table 4 gives a listing of these systems. At least another half dozen others reported they are going to integrated data bases and packaged data base management systems in the near future.

It should be remarked here that the information reported under 'Resources Used' and 'Other Traits' interpreted certain commercial software systems differently. For example, HASP was reported by some as an operating system and by others as a data base management system. The authors did not edit these interpretations because there is currently a great deal of overlap among certain functional descriptors in the computer field.

Table 4. Data Base Management Systems Reported,
Listed by Package Number

<u>Package Number</u>	<u>DBMS</u>	<u>Package Number</u>	<u>DBMS</u>
1-4	IMS (IBM)	55-1	
1-13	OS/VS	55-2	
9-1	OS	55-3	
14-1	ISAM	55-4a	GIS
20-1	OS	55-4b	
20-2	OS	55-5	
21-1		56-1a	
21-1a		56-1b	
21-1b	MOD I	56-1c	OS
21-2		56-1d	
21-3		56-1e	
24-1	Mark IV	63-5	IMS
25-1	Mark IV	64-1	EDMS
30-1	COBOL	67.1-1a	IMS
33-1	FMS8F (UNIVAC)	67.1-1b	VS2
33-2	FMS8 (UNIVAC)	67.1-3	IMS
40-1	HASP	68-1	TOTAL
40-2	HASP	69-2	
48-1	IMS	69-3	ISAM
51.1-1a		69-4	
51.1-1b		71-5	OASIS
51.1-1c		71-6	OASIS
51.1-1d	HASP, CICS,	75-1	
51.1-1e	STAIRS, ATMS	75-1a	
51.1-1f		75-2	IMS
51.1-2		75-3	
51.1-3		75-4	
		75-5	

3.2.3. History and Availability: Of the 315 packages submitted, 49 were developed partly or wholly outside the responding institutions. Of these 49, 26 were developed by private companies, 20 were by other universities and 3 were by government agencies. Table 5 lists the packages with their outside developers.

Table 5. Packages Developed Elsewhere

<u>Package Number</u>	<u>Developer</u>
1-8	U. of Georgia
1-10	IBM
1-13	MIT
1-14	Health Sciences Computing Facility, UCLA
1-16	Pansophic Systems, Inc.
7-1	U. of California, Santa Barbara
13-1	IBM
13-1e	Coopers and Lybrand
16-1	State U. System Personnel (Florida)
17-4	Wisconsin State U.
19-4	Stanford U.
23-11	Touche-Ross and Company
23-16	System Development Corporation
24-1	Stanford U.
37-1	Information Associates, Inc.
40-1	IBM
40-2	Informatics Inc.
41-1	Informatics Inc.
41-5a	CAPEX Corporation
41-5b	IBM & U. of British Columbia
41-5d	U. of Michigan & Michigan State U.
41-5e	U. of Michigan
41-5g	Bell Labs, IBM, U. of Michigan, U. of British Columbia, U. of Alberta
41-5i	Princeton U., U. of British Columbia

Table 5. Packages Developed Elsewhere (Cont'd)

Package Number	Developer
41-5j	IBM and U. of Michigan
41-6	IBM
46.2-1	System Development Corporation
46.2-2	U.S. Dept. of Agriculture Coop. State Research Service
50-3	Information Associates, Inc.
55-2	Stanford U.
58.2-2	U. of North Dakota
61-1	Gettig Inc.
62-1	Stanford U.
62-2	Information Associates, Inc.
63-5	Information Associates, Inc.
64.1-1	Xerox Corporation
65-1	Arthur Anderson & Company
65-1a	Arthur Anderson & Company
71-2	Information Associates, Inc.
73-9	State Budget Office (Virginia)

It is also of interest to see how many packages were reported as used elsewhere. There were 52 such packages and they are listed in Table 6. Index C lists the packages under the machine they are running on or have run on. A review of the 315 Package Summaries shows that 89 of these are running or have run on more than one machine.

Table 6. Packages Used Elsewhere, Listed With Function Code

Package Number	Function Code	Package Number	Function Code
1-8	[1a3]	40-2	[10]
1-10	[1b,7f]	41-1	[10]
1-13	[3a]	41-5a	[1b,1c,7b]
1-14	[9b]	41-5d	[15]
7-1	[2]	41-5e	[10a]
16-1	[1a]	41-5f	[10b]
17-3	[1a2,6]	41-5g	[10c]
17-4	[1a3,11a]	41-5i	[10b]
19-1	[1a11]	41-5j	[1b1,7f]
19-3	[1a4,1a10]	43-1	[2e]
19-4	[2f]	44-1	[1,7b,14]
19-6	[1a3]	49.2-1	[6a,6c]
19-8	[1b]	50-3	[1a]
23-13	[8]	50-3a	[5a]
23-16	[7]	50-3b	[7g]
24-1	[2d,2f]	50-3c	[6e]
33-3a	[3a]	55-2	[2f]
33-3b	[3a]	55-5	[5a,5c]
33-3c	[3a]	58.2-1	[2]
33-3d	[3a]	59-3	[1]
33-3e	[3a]	59-4	[3a,3d]
33-3f	[3a]	64.1-1	[8b]
33-3g	[3a]	67.1-1a	[1a]
36-1	[3]	67.1-1b	[5a]
37-1	[1a]	73-9	[1b]
40-1	[8b]	74-1	[2]

A review of the 'Availability' responses showed that 31 software packages and documentation for 209 packages were available or limited available.

3.2.4. Operational Comments: The most frequent comments and complaints, in descending order of frequency, related to (1) human problems, such as communication and error, (2) recruitment of programmers, (3) data entry and update, (4) slowing down of systems with large number of transactions, (5) software problems, (6) high cost of terminals, (7) telephone line transmission problems, (8) hardware problems, (9) timeliness of input, (10) changing regulations requiring quick program changes, (11) need for better data base, (12) data collection problems, (13) going to new system, and (14) need for adequate documentation.

4. CONCLUSIONS

4.1. Transferability

The fact that 52 reported packages are used elsewhere and 89 are run on more than one machine indicates that transfer of software packages is currently taking place, although no information was collected on the degree of difficulty of doing this. Since there is no standard methodology or set of guidelines for accomplishing this transfer of packages, the Software Exchange Directory has been designed to contain detailed information on the software packages, their computer environments, and their administrative environments with the goal of maximizing the exchange of information on this subject and thus facilitating the maximum possible transfer of such packages. The availability of documentation on 209 of these packages is an additional favorable factor for such transfer.

If it is found that the actual transfer of systems is not feasible, it is hoped there are sufficient pointers in the Directory to suitable package types and their contacts for transfer of concepts and systems designs. By offering these multiple avenues of communication in this computer-user community, the Directory will significantly reduce the over-all number of man-hours needed to develop desired new programs.

4.2. Research Administration Programs

In reviewing the results of the survey, some facts about research administration programs have emerged. The majority of institutions use a centralized administrative structure and imbed their research administration fiscal information via codes in their general administrative systems. However, certain functional areas and functions are programmed only for research administration use and, as stated in Section 3.1.5, these perform the functions of proposal and agency monitoring, grant/contract information system, cost sharing, records management (under cost sharing), multi-campus proposal/award communication network, time and effort accounting, historical and current expenditure analysis, cost control (under program management), indirect cost rate/fringe benefit rate, equipment inventory and personnel management. These programs are most frequently designed to handle both Federally and non-Federally sponsored research.

Indexes C and D show that IBM third generation computers predominate and COBOL is by far the leading language used. The statistics on the data bases being used indicate that integrated data base structures and the use of data base management systems have a firm foothold in this area of computer use. The statistics on security protection indicate a very strong awareness of the need for these measures in the use of software.

The fact that 44 programs are being run interactively and that 15 institutions are using networks indicate that the automated research administration area is slowly moving towards the use of terminals. The high cost of terminals, the transmission reliability problems, together with the leaner administrative budgets of today are the most likely reasons for this lack of speed in this direction.

4.3. Future Directions

One of the problem areas mentioned frequently by the respondents is the constant changing requirements by institutions and Federal agencies in the research administration area. Some research administration offices are attacking this problem by using specialized languages (such as Mark IV) that generate the report writing programs. Programs written in higher level languages, such as COBOL and FORTRAN and low level assembly languages require excessively time-consuming revisions. Use of specialized languages therefore seems to be a promising direction.

A second area in which a healthy sprinkling of comments have been made, both in the written responses and follow-up telephone conversations, is that of research administration codes. The development of a more comprehensive and possibly a standardized set of codes might lead to better use of generalized systems and improved transferability of research administration subsystems.

The third area for concentrated effort would appear to be that of transferability in general. An in-depth study of those programs which have already been transferred to other institutions may provide some useful insights into how this can be accomplished for programs in the future.

This Directory has an abundance of information that has not been collated in any manner. Only the highlights have been described here. The user may be able to draw additional interesting conclusions from a systematic review of the contents.

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SOFTWARE EXCHANGE DIRECTORY

PREFACE

The information collected from the institutions that responded to the survey is presented in the following Software Exchange Directory. Seventy-five of the one hundred queried institutions sent research administration information of value for inclusion in the Directory. The Directory entries contain the verbatim information reported with very minor editing of obvious errors and occasional condensing needed to fit the entry within the space allowed. No attempt was made to impose a standard usage of computer terms since there is currently a good deal of overlap in the accepted meanings of well-known terms. It was decided to produce the document on the computer and thus minimize the editing time needed for a project of this magnitude. The Directory, its Table of Contents, and Index A were all produced on a remote GTE IS/5714 terminal connected to the NBS' UNIVAC 1108, edited via the University of Maryland version of the UNIVAC 1108 Editor, and page formatted via the UNIVAC 1108 Document Processor. The authors wish to thank the competent assistance of the NBS Computer Services Division, and particularly Mr. George Dines, in overcoming the difficulties usually attendant upon becoming familiar with a particular set of computer software programs. We also wish to thank our typist, Mrs. Anne Shreve, for her efforts in entering this voluminous material at the terminal.

GUIDE TO THE DIRECTORY

The following discussion describes the Directory Table of Contents, its administrative and software package entries, its abbreviations, its footnotes, and the indexes compiled for cross-reference. All of the Directory entry material was collected during April, May, and June of 1975 and should be read from that perspective when time references are made in the body of the Directory.

1. DIRECTORY TABLE OF CONTENTS

The Table of Contents contains a single entry line for the administrative information from each respondent office and for each software package summary submitted. Most institutions replied with administrative information from a single office that handled their research administration. In these cases the institution was given an identifying number followed by a decimal point. For example, the University of Arizona was given the number 3. and the University of Georgia the number 19. . . . Wherever more than one office responded from an institution, an additional number was assigned to follow the decimal point. Thus, Northwestern University, with two respondent offices has information under 22.1 and 22.2. SUNY, because of its unique structure, is one exception to the numbering scheme in that the SUNY system is given the number 51. and all SUNY respondents from two of its institutions are listed under that number. The University of California system is the second exception in that the system itself is assigned the number 4. and is entered separately from its member institution entries. The reference line for a respondent office contains this assigned number, the name of the institution, and the Directory page number where its Administrative Information is located. In order to learn the identity of a particular institution's respondent office one must turn to the actual Directory entry.

The reference line for a Software Package Summary entry begins with an identifier containing the respondent office identification number, a hyphen, and the package summary number. Thus, 49.2-5. refers to Software Package Summary 5 submitted by the respondent 49.2, New York University's Medical Center. A package that is a subsystem of another package is identified with a number and letter. Thus, Software Package Summary 5a means that it is the first subsystem listed for package 5. Package 5 may or may not have been reported and therefore may or may not be entered in the Directory. The package reference line then continues with the title of the package, its acronym (if any), its I.D. (if any), and the system of which it is a subsystem (if any). All of this is followed by a square bracket containing the number/letter descriptors (found in the Hierarchic Function Outline of Index A) of the function(s) this package performs. Finally, to the extreme right is the Directory page number where the Software Package Summary begins. As an example, consider the reference line:

49.2-5. Time and Effort Reporting,,CAD917, subsystem of Fiscal Reporting/...[1a15] 2-103

It refers to Software Package Summary 5 of respondent 49.2 (New York University Medical Center) with title "Time and Effort Reporting," no acronym, I.D.: CAD917, a subsystem of Fiscal Reporting/..., performing function 1a15 (Fiscal Administration-Financial Accounting-Time and Effort Reporting), and

is found on page 2-103. The subsystem information for this particular reference line was deleted in order to accommodate the square-bracketed function descriptors and the deletion is indicated by an ellipsis (...). The non-truncated version of this reference line - and any other truncated reference line in the Table of Contents - may be found in the body of the Directory under the proper Software Package Summary. For this particular example it appears on page 2-103 under Software Package Summary 5. In the body of the Directory the title line for each Package Summary does not contain the number/letter function descriptors.

2. INSTITUTION ENTRIES IN THE DIRECTORY

Each institution that responded with information suitable for the Directory was assigned a number that placed the institution in alphabetic order within its state and the states in alphabetic order. The title line for each such response contains this number followed by the name of the institution. This title line appears at the top of each page containing the response from that institution. Following the first title line, an institution's entry contains the name and mailing address of the institution. In the parenthesis following the institution name is its FICE (Federal Interagency Committee on Education) number which uniquely identifies it. In the parenthesis on the next line is a set of three descriptors that help characterize the institution for the user. These are student body size, affiliation, and structure. Student body size may be small (under 10,000), medium (between 10,000 and 25,000), or large (over 25,000); the affiliation may be of a public or private nature; and the structure may be a single institution, a multi-campus setting, or an institutional system (see reference 1, p. xii for a discussion of these terms).

2.1. Administrative Information Entries

For each office at an institution that responded with the administrative information requested in Part I of the survey, there is an Administrative Information entry in the Directory. The five possible components of an entry are the Reporting Unit, the Administration Parameters for Contracts and Grants (FY74), a Computer Usage Profile, a listing of Functions Administered, and Comments. Not all replies contained information on all five parts. Any part of a response with no information was entirely omitted from the entry. The maximum information possible under each of these components is:

(1) Reporting Unit: respondent office name and address; administrative structure (centralized, decentralized and within, or decentralized and outside); name, title, phone number of contact. This information was reported in Part I, Question 1 in the survey.

(2) Administration Parameters for Contracts and Grants (FY74): activities supported (r&d, training, health services and/or construction); number of contracts and grants; amount of funding and whether funded or expended; number of awarding Federal agencies; number of full-time equivalent (FTE) professional staff, number of full-time equivalent (FTE) technicians; fields of research (business, computer sciences, engineering, environmental science, life sciences, mathematics, physical sciences, psychology, social sciences, other). The expression 'all [1]' meant all of the above research was engaged in. This information was reported in Part I, Question 2 of the survey.

(3) Computer Usage Profile: for each computer used to process the automated research administration functions for Federally funded research, the computer manufacturer and model is given and terms describing its usage mode are selected from among: on-grounds, off-grounds, dedicated, shared, commercial, intrainstitutional, interinstitutional, computer network. This information was reported in Part I, Question 3 of the survey.

(4) Functions Administered: the broad functional areas and functions that have been automated, that will be automated, and that are handled manually (not automated) are listed in that order. The function Guide (see Appendix E.9) provided a base for the terms used in this reply. The footnote [2] implies that the terms in the function Guide were being used by the respondent. The expression 'all' means that all the subfunctions in the function Guide under the immediately preceding function heading were reported by the respondent office. Thus, 'space-all' means that 'space-inventory, maintenance, utilization/allocation' were reported. The automated programs were further characterized by the following abbreviations:

- R - used for research administration only
- G - used for general administration
- F - used for Federally sponsored research only
- B - used for both Federally and non-Federally sponsored research

For example, 'all (RB)' means that the immediately preceding automated functions are all used for research administration only (R) and for both (B) Federally and non-Federally sponsored research. If an institution had separate automated research administration programs for non-Federally sponsored research, this fact was stated at the end of the paragraph. All of the above information was reported in Part I, Questions 4 and 5 of the survey.

(5) Comments: contains the greatest problems encountered in development and use of system and any other comments the respondent felt might be useful to the research administration community. This was reported in Part I, Question 6 of the survey.

2.2. Software Package Summary Entries

A Software Package Summary maximally consists of eight parts: a Number/Title Line, a Description, a list of Reports Generated, a statement of Other Traits, a description of Resources Used, a History of Package, a statement of Availability, and Comments. The maximum information possible under each of these headings is:

(1) Number/Title Line: this is discussed fully in Section 1, p.2-i. The information comes from Part II, Question 1 of the survey.

(2) Description: combines the response on purpose, other features, and future functions. It also states whether the package is also used for non-Federally sponsored research. This information is found in the answers to Part II, Questions 3a, 3c, 3g, 3h of the survey.

(3) Reports Generated: enumerates the reports produced by the package. This information is found in the answers to Part II, Question 3b in the survey.

(4) Other Traits: enumerates the software's characteristics by listing the processing mode (interactive or batch); the data base properties (structure and access method); the programming language(s) used, their version or level, and whether standard (S) or modified (M); the types of security protection used (transmission, terminal, data, record, field, operating system, and/or other). The expression 'all [4]' means that all the above types of security protection are used. The answers to Part II, Questions 3d, 3e(1), 3e(2), 3f on the survey supply this information.

(5) Resources Used: describes the computer-environment by enumerating the hardware and system characteristics. It contains the computer used (manufacturer and model), the operating system name followed by (S) for standard, (M) for modified, or (custom) for custom-made; name of any generalized data management system used followed by (S) for standard, (M) for modified, or (custom) for custom-made; the amount of high speed storage and the units used; the number of tape drives used plus their number of tracks and density; the drum space used and its units; the disc space used and its units; the I/O devices used (card reader, card punch, printer, teletype, CRT, other); and other peripherals used. This information was supplied by Part II, Question 2 of the survey.

(5) History of Package: tells who developed the package; what language it has been translated to with version or level and (S) for standard, (M) for modified; what other computers it has run on (manufacturer, model, operating system); what other organizations have used or are using it; date of first implementation; and date of last update. This information comes from Part II, Question 4 in the survey.

(7) Availability: states whether the package is available (available, limited available, unavailable - see instructions for Part II of survey for discussion of these terms) and its price (if any); what manuals are available (available, limited available, unavailable) and their price (if any); the software package contact (name, title, phone, address); and the documentation contact (name, title, phone, address). This information comes from Part II, Question 5 on the survey.

(8) Comments: contains the greatest problems in development and use of system and any other comments the respondent thought would be useful to the person reading the Package Summary. This information comes from Part II, Question 6 on the survey.

3. COMMON ABBREVIATIONS IN THE DIRECTORY

3.1. Entry Short-Forms

If any of the items (2) through (8) above is an exact replica of the same item for an earlier Package Summary for a respondent, it is not repeated. Instead, reference is made to that item in the earlier Package Summary by stating 'same as package ____'. If any of the items (2) through (8) above repeat all but a few facts for the same item in an earlier Package Summary, the reference states 'same as package ____ except...'. If any of the items (2) through (8) above repeats the same item for an earlier Package Summary but adds some other facts as well, the reference becomes 'same as package ____ plus...' or 'same as package ____; also...'. Whenever several items among the (2) through (8) for a single Package Summary have the same earlier package reference, the items are grouped together on one line. For example:

Other Traits, History of Package, Availability

same as package 1.

means the current package's information on Other Traits, History of Package, Availability is the same as found for package 1 under those headings.

3.2. Abbreviations

The following is an alphabetic list of meanings of the common abbreviations found in the Directory entries.

1. ANS - American National Standard
2. ANSI - American National Standards Institute
3. (B) - program used for both Federally and non-Federally sponsored research administration
4. bpi - bits per inch
5. CICS - Customer Information Control System
6. CRT - cathode ray tube device
7. cyl. - cylinder
8. dbms - data base management system
9. (F) - program used for Federally sponsored research administration
10. FICE - Federal Interagency Committee on Education
11. FTE - full-time equivalent
12. (G) - general administration program
13. IMS - Integrated Management System
14. I/O - input/output
15. K - thousand
16. l. - level
17. M - million
18. (M) - modified
19. OS - Operating System (IBM)
20. PI - principal investigator
21. (R) - research administration program
22. r. - release
23. (S) - standard
24. v. - version
25. VS - Virtual System (IBM)

4. FOOTNOTES

There are four square-bracketed footnotes found in Directory entries. They have the following meanings:

4.1. Footnote [1]

This means a respondent office engages in all fields of research listed in Part I, Question 2g of the survey. These are: Business, computer sciences, engineering, environmental science, life sciences, mathematics, physical sciences, psychology, and social sciences. A more detailed breakdown of some of these categories may be found in the Instructions for Part I of the survey (see Appendix E.5).

4.2. Footnote [2]

This usually follows Functions Administered in the Administrative Information and means that the terms used by the respondent to describe the Functions Administered closely follow the function Guide sent out with the survey (see Appendix E.9 for function Guide).

4.3. Footnote [3]

This follows the acronym 'CAUSE' and means that this software package is available through the College and University Systems Exchange (CAUSE), 739 29th Street, Boulder, Colorado 80303, a national association of predominantly higher education institutions. It is dedicated to the advancement of information systems in higher education and acts as a clearinghouse for computer systems registered with them.

4.4. Footnote [4]

This is used in the expression 'all [4]' and means that security protection of all the suggested types in Part II, Question 3f of the survey are used by the package being reported. These include transmission, terminal, data, record, field, and operating system security.

5. INDEXES

There are four Indexes to the Directory. These are Index A - Hierarchic Function Index, Index B - four Indexes on Scale of Research Administered, Index C - Index by Computer Used, and Index D - Index by Languages Used. Detailed information on their composition may be found in Appendices A, B, C, and D respectively. The purpose of Index A is to direct the user to packages that perform functions he is particularly interested in. The purpose of Index B (which is composed of four subindexes, each based on a different scale of effort parameter) is to help the user locate a research administration environment similar to his own with the expectation that programs from a similar environment may be more adaptable to his own needs. The purpose of Indexes C and D is to locate computer programs by two of the factors usually critical to any kind of successful program transfer.

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1. UNIVERSITY OF ALABAMA, BIRMINGHAM

University of Alabama, Birmingham (FICE 001052)
(small, state, single institution)
University Station
Birmingham, Alabama 35294

ADMINISTRATIVE INFORMATION

Reporting Unit

Coordinator of Research Grants, University Station, Birmingham, Ala. 35294; centralized with administrative structure of institution; for further information call Dr. Robert P. Glaze, Ph.D., Coordinator of Research Grants, 205/934-4346.

Administration Parameters for Contracts and Grants (FY74)

350 contracts and grants for r & d, training, health services, construction in the amount of \$39.5M (funded) from 95 federal agencies; 397 FTE professional staff, 203 FTE technicians; fields of research include all[1].

Computer Usage Profile

IBM 370/158, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but time and effort reporting; equipment-inventory; procurement-all; space-inventory, utilization; personnel management-current activities; computer center accounting; WILL BE AUTOMATING: time and effort reporting; planning and budgeting-all; equipment-maintenance; space maintenance; library-technical services; proposal preparation(RB), proposal and agency monitoring (RB); cost sharing-agreements(RB); program management-cost control, man loading, forecasting; all (GB) except where noted; has automated research administration functions for non-Federally sponsored research.

SOFTWARE PACKAGE SUMMARY-1

1. Payroll, PAYPERS

Description

produces payroll and related reports for bi-weekly, monthly and fellowship employees; will have IMS/Database; also used for non-Federally sponsored research.

Reports Generated

standard payroll reports, i.e., labor distribution, payroll register deductions and related regulatory reporting.

Other Traits

processing mode is batch; data base is partially integrated with index-sequential access; uses ANS COBOL(S), Assembler(S), Easytrieve(S); security protection in transmission, terminal, data.

Resources Used

IBM 370/158, OS/VS2(S) operating system; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 60 cyl.; I/O devices: card reader, printer, CRT, card punch.

History of Package

developed in-house; implemented 6/66; last change 3/71.

Availability

all manuals limited available; for further information call Stanley J. Cloward, Manager, Information Systems, 205/934-2450, Central Computing Facility, 123 Rust Research Bldg.

SOFTWARE PACKAGE SUMMARY-2

2. Employee History

Description

maintains history of changes to personnel records during and after employment; also used for non-Federally sponsored research.

Reports Generated

analytical reports of hiring, terminations, promotions, etc.

Other Traits

processing mode is batch; data base is partially integrated; uses ANS COBOL(S); security protection in data.

Resources Used

same as package 1 except uses 2 tape drives, no CRT, no card punch.

History of Package

1. UNIVERSITY OF ALABAMA, BIRMINGHAM

developed in-house; implemented 4/75.

Availability

User and Programmer Manuals unavailable; Operator Manual limited available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Faculty Records,PN

Description

maintains record of degrees, appointments, appointment dates,etc.; also used for non-Federally sponsored research.

Reports Generated

detail reports by school, division, tenure.

Other Traits

same as package 2 except security protection in record.

Resources Used

same as package 1 except uses 2 tape drives, no discs, no CRT.

History of Package

developed in-house; implemented 6/72.

Availability

User and Operator Manuals limited available; Programmer Manual unavailable; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Applicant Information System,UABPAIS

Description

maintains employment applications; monthly statistical report may be produced at any time, may cover any time period specified; will have possible future integration into Personnel system as the initial source; also used for non-Federally sponsored research.

Reports Generated

daily: exception listing--non-processable input data; monthly: statistical report of activity covering specified time periods.

Other Traits

processing mode is interactive; data base is non-integrated with HISAM (primary) and VSAM(secondary) access; uses ANS COBOL(S), 370 Assembler Subroutines(S), PL/1 TSO Data Entry; security protection in record.

Resources Used

IBM 370/158, VS2(S) operating system; IMS(S) dbms; 300K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 5 cyl. on 3330; I/O devices: card reader, printer, hard copy terminal.

History of Package

developed in-house; implemented 5/1/75.

Availability

User Manual available at no cost; for further information call J. K. Murdock, Database Administrator, 205/934-2460, Central Computing Facility.

SOFTWARE PACKAGE SUMMARY-5

5. Purchasing Accounts Payable,POAP

Description

creates purchase orders online and prints purchase orders and microfiche, posts invoices and receivers; also used for non-Federally sponsored research.

Reports Generated

purchase orders, budget entries.

Other Traits

processing mode is interactive; data base is partially integrated with sequential, index-sequential, random access; uses ANS COBOL(S), Assembler(S); security protection in transmission, terminal.

Resources Used

same as package 1 except uses 200 cy1 on disc.

History of Package

developed in-house; implemented 3/75.

1. UNIVERSITY OF ALABAMA, BIRMINGHAM

Availability

all manuals unavailable; for further information call same as package 1.

Comments

greatest problems in hardware.

SOFTWARE PACKAGE SUMMARY-6

6. Accounts Payable, PU/AP

Description

produces on a daily basis checks, voucher jackets, check registers and budget entries; also used for non-Federally sponsored research.

Reports Generated

checks, voucher jackets, check registers, and budget entries.

Other Traits, Availability

same as package 5; also uses batch processing mode.

Resources Used

same as package 1 except uses 2 tape drives, 200 cyl on a 3330 disc, no CRT.

History of Package

developed in-house; implemented 3/75.

Comments

greatest problems in hardware.

SOFTWARE PACKAGE SUMMARY-7

7. History and Current Expenditure Analysis

Description

shows comparisons and projections of expenditures; also used for non-Federally sponsored research.

Reports Generated

STAT I-monthly status of budget report.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses ANS COBOL (S).

Resources Used

same as package 6 except no card punch.

History of Package

developed in-house; implemented 5/75.

Availability

same as package 5.

SOFTWARE PACKAGE SUMMARY-3

8. Telephone Billing System, TBS, U. of Georgia Telephone Billing

Description

computerizes the distribution of telephone charges to the responsible fund and accounts.

Reports Generated

(1)listing of the file in order by telephone number; (2)listing by account number; (3)three error listings; (4)telephone bills; (5)year-to-date billing report; (6)report of department charges; (7)listing of special adjustments.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential, random access; uses COBOL V.4(S)

Resources Used

IBM 370/158, IBM 360/50, OS(S) operating system; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 25 cyl.on 3330; I/O devices: card reader, printer.

History of Package

developed out-of-house at U. of Georgia, Athens; also used on IBM 360/50 with OS; also used by University of Georgia, Athens, and Georgia Southern Bell; implemented 4/75; last change 5/75.

Availability

for further information call Ralph E. Gentry, Manager, 404/542-4296, Office of Computing Activities, Business Services Building, Athens, Georgia 30602.

SOFTWARE PACKAGE SUMMARY-9

9. Budget Report

Description

maintains the University books and produces all management reports; also used for non-Federally sponsored research.

Reports Generated

departmental budget statement, financial report.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential, random access; uses ANS COBOL(S).

Resources Used

same as package 1 except uses 200 cyl. on disc, no CRT.

History of Package

developed in-house; implemented 9/64; last change 9/74.

Availability

all manuals unavailable; for further information call same as package 1.

Comments

Greatest problems are hardware and human.

SOFTWARE PACKAGE SUMMARY-10

10. Computerized Planning Model and High Level Planning Language, PSG2 OS/VS, subsystem of PSG2

Description

assists in modeling financial systems; has modification for external transfer of data to and from disc storage; will be adding extended forecasting algorithms.

Reports Generated

enrollment projection reports; budget projections and expenses of five-year period.

Other Traits

processing mode is batch; data base is integrated with index-sequential, random access; uses FORTRAN IV(S); security protection in operating system and card storage of sensitive data.

Resources Used

same as package 1 except uses 1 tape drive, no card punch, no CRT, no disc.

History of Package

developed out-of-house at IBM; translated to PL/1(S); used by 200 licensees for PSG2 in country; implemented 2/74; last change 4/75.

Availability

for further information call Gary Little, Financial Analyst, 205/934-3295, Div. of Special Studies, U. of Ala., Birmingham.

Comments

Greatest problems are human; program enhanced with addition of external file transfer capabilities.

SOFTWARE PACKAGE SUMMARY-11

11. University Hospital Accounts Receivable, AR

Description

establishes and maintains current balances of University Hospital patient accounts; will be adding magnetic tape billing to third party sponsors; also used for non-Federally sponsored research.

Reports Generated

reports daily adjustments to patient accounts.

Other Traits

same as package 9 plus security protection in operating system.

Resources Used

same as package 1 except uses 250 cyl. on disc, no CRT.

History of Package

developed in-house; implemented 3/75; last change 5/75.

Availability

same as package 5.

Comments

1. UNIVERSITY OF ALABAMA, BIRMINGHAM

greatest problems with hardware and software.

SOFTWARE PACKAGE SUMMARY-12

12. Medical Center Inventory, MI

Description

gives a ready inventory of Medical Center equipment; has property number and building number sequence; handles specific building when doing inventory; also used for non-Federally sponsored research.

Reports Generated

printout by building, property number, ownership, division or division and department, unknown location or lost items, year of purchase, value of items.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL(S), Easytrieve(S); security protection in data.

Resources Used

same as package 1 except uses 2 tape drives, no discs, no CRT.

History of Package

developed in-house; implemented 6/72.

Availability

User and Programmer Manuals unavailable; Operator Manual limited available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-13

13. MIT Space Inventory System, INSITE,, subsystem of International Civil Engineering System (ICES)

Description

provides for inventory and analysis of physical facilities used by the university; will be adding cost allocation analysis module; also used for non-Federally sponsored research.

Reports Generated

room assignment and allocations of different type rooms, space utilization.

Other Traits

processing mode is batch; data base is special format with sequential, random access; uses ICETRAN (a FORTRAN IV E level derivative) (M); security protection in operating system, system provides its own saves.

Resources Used

IBM 370/158, OS/VS2 r.1.7 operating system; OS/VS access methods (S) for dbms; 7M bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 7M bytes; I/O devices: card reader, printer, card punch.

History of Package

developed out-of-house at MIT, Cambridge, Mass.; also used by MIT, Cambridge, Mass., Brown University, Providence, RI., Rush-St. Luke's Presbyterian Medical Center, Chicago, Ill., implemented 2/75.

Availability

all manuals available; for further information call Ms. Kreon Cryos, Director, Facilities Management, Office Facilities Management, MIT, 77 Mass. Ave; Cambridge, Mass.

Comments

greatest problems in software-If errors are made data base is destroyed and must be reloaded.

SOFTWARE PACKAGE SUMMARY-14

14. UCLA Biomedical Library On-Line Control System for Serials

Description

supports four central functions of serials processing: reference, check-in, claims, and bindery.

Reports Generated

Lists: map type (compact dumps of records or portions of records), reference (formatted lists showing various fields ordinarily used by patrons), daily receipts (lists of check-in transactions at the terminal), bindery (pickup lists

1. UNIVERSITY OF ALABAMA, BIRMINGHAM

and packing lists); Forms: claim letters, subscription orders and reorder letters, bindery slips.

Other Traits

processing mode is interactive; data base uses sequential access; uses PL/1 Optimizer(S).

Resources Used

IBM 370/158, OS/VS2 r.1.7(S) operating system; discs: 150 cyl on 3330; I/O devices: printer, CRT.

History of Package

developed out-of-house at Health Sciences Computing Facility, UCLA; also used on IBM 360/91 with TORTOS; currently being implemented.

Availability

for further information contact James Fayollat, Head, Systems Division, Biomedical Library, Center for Health Sciences, Los Angeles, Ca. 90024.

SOFTWARE PACKAGE SUMMARY-15

15. Central Computing Facility (CCF) Accounting

Description

provides automated accounting for CCF services and computer usage; system currently being redefined and will be completely rewritten; also used for non-Federally sponsored research.

Reports Generated

user bills, numerous administrative accounting reports for both CCF and users.

Other Traits

processing mode is batch; data base has sequential, index-sequential access; uses COBOL(S), BAL(S); security protection in data.

Resources Used

IBM 370/158, VS 1.7(S) operating system; tapes: 1 drive, 1600 bpi; discs: 100 cyl; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 1/71; last change 2/75.

Availability

all manuals unavailable; for further information call J. William Mullen, Manager, Systems Programming, 205/934-2450, Central Computing Facility.

Comments

greatest problems in software; system grew from small deck of cards to a complex multi-purpose package; never had a master plan or design; system is being redesigned for better performance and flexibility.

SOFTWARE PACKAGE SUMMARY-16

16. Easytrieve

Description

generalized report generator package; also used for non-Federally sponsored research.

Reports Generated

optional with user.

Other Traits

processing mode is batch; data base is non-integrated.

Resources Used

IBM 370/158, OS/VS2(S) operating system; tapes: optional with usage; discs 16 tracks; I/O devices: card reader, printer, card punch.

History of Package

developed commercially by Pansophic Systems, Inc, Oak Brook, Ill.; implemented 7/74; last change 1/75.

Availability

for further information call same as package 1.

2. UNIVERSITY OF ALASKA

University of Alaska (FICE 008005)
(medium, state, multicampus institution)
Fairbanks, Alaska 99701

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Institutional Studies and Physical Facilities Development, U. of Alaska; centralized with administrative structure of institution; for further information call Max M. Hullinger, Vice President of Finance and Comptroller, 907/479-7711

Administration Parameters for Contracts and Grants (FY74)

770 contracts and grants for r & d, health services, training for the amount \$18.6M (expended in 73-74) from 20 Federal agencies; fields of research include business, engineering, environmental science, life sciences, physical sciences, psychology, social sciences.

Computer Usage Profile

IBM 360/40

Functions Administered [2]

HAS AUTOMATED:financial accounting-all; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis(75); equipment-inventory; procurement-all; space-all; WILL BE AUTOMATING: indirect cost rate/fringe benefit rate-preparation of proposal(RB); personnel management-all(76); library support-circulation services; grant/contract information system(76)-proposal and agency monitoring(RB), multicampus proposal/award communication network (RB); cost sharing(76)-all(RB); program management(76)-cost control, man loading, forecasting, scheduling; internal audit(76); all (GB) except where noted.

Comments

The administrative systems of the University are in the process of being replaced, virtually across the board. Life expectancy of existing systems is less than twelve months. New systems will be run on a Honeywell H-66/20. It is planned to use a remote batch processing approach for administrative processing on the new hardware. Research management/control systems will continue to be integrated with general University administrative systems. Software will be obtained from commercial software vendors, yet to be selected.

3. UNIVERSITY OF ARIZONA

University of Arizona (FICE 001083)
(large, state, single institution)
Tucson, Arizona 85721

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of the Vice President for Research, 603 Administration Building, U. of Arizona; decentralized from but within administrative structure of institution; for further information call A. Richard Kassander, Vice President for Research, 602/884-3511.

Administration Parameters for Contracts and Grants (FY74)

2000 contracts and grants for r&d, health services, training for the amount \$19.3M (funded) from 16 Federal agencies; 400 FTE professional staff, 150 FTE technicians; fields of research include all[1].

Computer Usage Profile

CDC 6400, on-grounds, shared intrainstitutional.

Functions Administered

HAS AUTOMATED: planning and budgeting(GB)-forecasting; indirect cost rate(GB)-budget analysis, forecasting techniques; space(GB)-utilization/allocation; personnel management-current activities, capabilities; grant /contract information system-proposal and agency monitoring, proposal/award communication network; reporting-monthly program reports, annual report of gifts/grants received; WILL BE AUTOMATING: personnel management-interests; all (RB) except where noted; HAS NOT AUTOMATED: grant/contract information system-proposal preparation, sponsoring agency liaison; has automated research administration functions for non-Federally sponsored research.

Comments

no major problems but did not anticipate the demand for the information in the system; many suggestions for additional data that could be included with program changes; plan to make these changes in the near future.

SOFTWARE PACKAGE SUMMARY-1

1. Proposal/Award Information System, PAIS

Description

a grant/contract information system-proposal monitoring, communication network, personnel activities and capabilities; has a normal weekly update cycle with selective reporting on demand; will be adding on-line access, investigator interest/capability profile.

Reports Generated

monthly and annual report of gifts and grants by college, department, principal investigator; sponsors of research projects; various information relating to proposals.

Other Traits

processing mode is batch; data base is non-integrated with random access; uses COBOL v.3(S); security protection in record, operating system.

Resources Used

CDC 6400, SCOPE (S) operating system; 103K octal words high speed storage; tapes: 2 drives, 7 tracks, 800 bpi; discs: 30M characters; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 5/73; last change 12/74.

Availability

software package and User Manual are available, Programmer Manual is unavailable, Operator Manual is limited available; for further information call Charles H. Peyton, Assistant Vice President For Research, 602/884-3511.

Comments

problems minimal; programs thoroughly debugged; input data very accurate; hardware and software relatively error free.

4. UNIVERSITY OF CALIFORNIA

University of California (FICE 001311)
(large, state, multicampus system)
Berkeley, California 94720

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of the President, Vice President--Administration, University of California Central Office, Berkeley, California 94720; centralized with administrative structure of Central Office; for further information call Richard D. Wolfe, Mgr., Contracts and Grants & Service Programs, 415/642-2885.

Administration Parameters for Contracts and Grants (FY74)

4874 contracts and grants (73-74) for r&d, health services, training for the amount \$281.6M (funded) from 500+ Federal agencies; 6891 FTE professional staff; fields of research include all [1] plus health sciences.

Computer Usage Profile

IBM 360/65, on-grounds, intrainstitutional; IBM 360/40, on-grounds, intrainstitutional; IBM 360/30, on-grounds, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting, payroll; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities-inventory, utilization/allocation; procurement-all; space-inventory, utilization/allocation; library support; grant/contract information system-multi-campus proposal and award reporting; program management-cost control; internal audit; WILL BE AUTOMATING: equipment and specialized research facilities-maintenance; HAS NOT AUTOMATED: equipment and specialized research facilities-projection, security; space-maintenance.

Comments

System not totally comprehensive, nor are all campuses equally participant. Computers are approaching work overload. Software needs redesign to provide more complete services.

In general the research administration functions of the University of California have been delegated to our nine campuses and four major laboratories for proposal and award activities under \$1 million in direct costs per year. Centrally, the Office of the President of the University establishes policy and procedures for the management and administration of sponsored research and maintains a computerized reporting system of proposals and awards for extramural research, public service and training for University-wide use. Four of our campuses have initiated and are maintaining separate EDP systems to meet the needs of their local research management requirements.

SOFTWARE PACKAGE SUMMARY-1

1. Contracts and Grants Reporting System, C&G, CGX

Description

used for planning and budgeting-expenditure and budget analysis, forecasting; proposal and agency monitoring; also used for non-Federally sponsored research.

Reports Generated

lists and indexes of awards and proposals.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses PL/1-F(S); security protection in data and record.

Resources Used

IBM 360/65, OS/360 (S) operating system; 280K bytes high speed storage; tapes: 2 drives, 7 tracks, 800 bpi; discs: 280K bytes; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 7/67; last change 3/75.

Availability

User and Operator Manuals available; for further information call Fred J. Lundberg, Director, Information Systems Division (ISD), 415/642-5605, Vice Pres. of Administration/ISD, U. of Calif.

Comments

This is part of a university wide C&G system serving all of the U. of Calif. campuses.

5. UNIVERSITY OF CALIFORNIA, BERKELEY

University of California, Berkeley (FICE 001312)
(large, state, member of multicampus system)
Berkeley, California 94720

ADMINISTRATIVE INFORMATION

Reporting Unit

Campus Research Office, M11 Wheeler Hall; decentralized from but within administrative structure of institution; for further information call August G. Manza, Manager, Campus Research Office, 415/642-0120.

Administration Parameters for Contracts and Grants (FY74)

742 contracts and grants for r&d, public service, training for the amount \$44.7M (expended) from 98 Federal agencies; 1042.0 FTE professional staff, 205.0 FTE technicians; fields of research include all[1] plus humanities and law.

Computer Usage Profile

CDC 6400, on-grounds.

Functions Administered

HAS AUTOMATED: grant/contract information system-reporting on currently active projects; HAS NOT AUTOMATED: grant/contract information system-proposal review and approval, contract/grant negotiation and approval, proposal monitoring, sponsoring agency liaison; all (RB).

Comments

reports late due to delays in data entry; introducing visual display terminal to speed input and eliminate such delays.

SOFTWARE PACKAGE SUMMARY-1

1. Listing of Active Projects

Description

keeps record of all the grants/contracts on the Berkeley campus; reports can be subsetting on grants/contracts that deal with human subjects, toxic materials, radiation and animals; plan to have on-line editing; also used for non-Federally sponsored research.

Reports Generated

listing by PI, by College, by Agency.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses Fortran(S); security protection in data, operating system.

Resources Used

CDC 6400, SCOPE(M) operating system; 65K words(60bit) high speed storage; tapes: 5 drives, 7 tracks, 200/556/800 bpi; discs: 56M bytes on 8 units; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 1/73; last change 3/75.

Availability

User Manual is limited available, Programmer and Operator Manuals are unavailable; for further information call Ken Hebert, Director, Computer Center, 415/642-2521, 249 Evans Hall, U. of Ca., Berkeley.

Comments

greatest problems with getting information into the computer and updating it.

6. UNIVERSITY OF CALIFORNIA, DAVIS

University of California, Davis (FICE 001313)
(medium, state, member of multicampus system)
Davis, California 95616

ADMINISTRATIVE INFORMATION

Reporting Unit

Research Development Office, 275 NRAK Hall; centralized with administrative structure of institution; for further information call Arthur C. Lowe, Administrative Analyst, 916/752-2075.

Administration Parameters for Contracts and Grants (FY74)

337 contracts and grants for r&d, training for the amount \$23.6M (funded) from 15 Federal agencies; fields of research include all[1] but business and computer sciences.

Computer Usage Profile

IBM 360/65, off-grounds, shared, interinstitutional; Burroughs B6700, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: financial accounting-all(GB); financial planning and budgeting-all; indirect cost rate/fringe benefit rate-all(GB); faculty-current activities, capabilities, interests (own system); contract and grant proposal and agency monitoring; WILL BE AUTOMATING (own systems): indirect cost rate/fringe benefit rate-all; contract and grant information system-proposal preparation, proposal and agency monitoring, human subject coordination; cost sharing-agreements; HAS NOT AUTOMATED: sponsoring agency liaison; all (RB) except where noted.

Comments

Due to one system (C&G) being centralized for U. of Ca. system, updating of data base and requesting of special reports entails long delays. Consideration is being given to implementing a local EDP system to overcome above problem. A separate EDP system exists containing faculty research interests which can be interactively searched and used for disseminating funding information.

SOFTWARE PACKAGE SUMMARY-1

1. Faculty Research Interests Profile System, FRIPS

Description

maintains information on researchers' current interests, activities and capabilities so as to improve the dissemination of funding information; plan to have proposal and award monitoring, keyword searches, inclusion of abstracts of research; also used for non-Federally sponsored research.

Reports Generated

lists data on faculty as a function of research interests or professional identification.

Other Traits

processing mode is interactive; data base is non-integrated with index-sequential and inverted index file access; uses B6700 Extended ALGOL(S) and B6700 COBOL(S).

Resources Used

Burroughs B6700, Master Control Program MK II.5(M) operating system; 60K bytes high speed storage; discs: 800K bytes; I/O devices: printer, CRT, teletype.

History of Package

developed in-house; implemented 3/75.

Availability

all manuals unavailable; for further information call A. Rollins, Senior Programmer, 916/752-0235, Computer Center.

Comments

Present codes for research specialty areas need expansion to include more areas. Also, a hierarchical subject retrieval method is required.

SOFTWARE PACKAGE SUMMARY-2

2. Contracts and Grants Reporting System, C&G, CGX

same package as package 1 under University of California except implemented 12/67.

7. UNIVERSITY OF CALIFORNIA, LOS ANGELES

University of California, Los Angeles (FICE 001315)
(large, state, member of institutional system)
405 Hilgard Ave.
Los Angeles, California 90024

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Contract and Grant Administration, Rm. 3109 Murphy Hall; centralized with administrative structure of institution; for further information call Dr. Terence A. Feuerborn, Director, 213/825-4031.

Administration Parameters for Contracts and Grants (FY74)

2000 contracts and grants for r&d, health services, training for the amount \$95.0M (funded) from 90 Federal agencies; fields of research include all [1].

Computer Usage Profile

IBM 360/91, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all; equipment and specialized research facilities-inventory; procurement-all; space-inventory, utilization/allocation; library support-all; grant/contract information system (RB)-proposal and agency monitoring, multi-campus proposal/award communications network; program management-cost control; internal audit; all (GB) except where noted.

SOFTWARE PACKAGE SUMMARY-1

1. Office of Contract and Grant EDP System, OCGA-EDP System

Description

Contract/Grant Information System: To maintain a contract/grant data base which provides proposal and award information in the areas of awarding agencies, principal investigators, schools and departments; plan to include: total % time by P.I.; % proposals awarded by P.I., department, school, and agency; awards outstanding by subject; P.I. by agency; notice of reports due to agency (technical, financial, equipment, etc.); financial reports; also used for non-Federally sponsored research.

Reports Generated

proposals submitted (department within school); awards received (department within school); proposals submitted (by agency); awards received (by agency); proposals submitted (P.I. within department/school); proposal/award (summary activity); principal investigator (proposals submitted/awards received).

Other Traits

processing mode is batch; data base is non-integrated with sequential and index-sequential access; uses PL-1(S); security protection in terminal (used for data input only), operating system.

Resources Used

IBM 360/91, OS/MVT(M) operating system; 600K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 2 IBM 2314's; I/O devices: card reader, printer, card punch.

History of Package

developed in-house as a modified and expanded version of U. of Calif., Santa Barbara system; also used on IBM 360/65 with OS at UC Santa Barbara; also used on IBM 360/50 with OS at UC Riverside; implemented 2/73; last change 5/75.

Availability

all manuals under development; for further information call Dr. Terence A. Feuerborn, Director, Office of Contract and Grant Administration, 213/825-4031.

8. UNIVERSITY OF CALIFORNIA, SAN DIEGO

University of California, San Diego (FICE 001317)
(small, state, member of multicampus system)
P.O. Box 109
La Jolla, California 92037

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Contract and Grant Administration, U. of Calif., San Diego; decentralized from but within administrative structure of institution; for further information call Harry A. Moore, Manager, Contract and Grant Administration, 714/452-3330.

Administration Parameters for Contracts and Grants (FY74)

1088 contracts and grants for r&d, health services, training for the amount \$49.5M (expended) from 30 Federal agencies; 580 FTE professional staff, 1029 FTE technicians; fields of research include all[1] except business, plus music, visual arts, linguistics.

Computer Usage Profile

Burroughs 6700, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: contract and grant administration-multicampus proposal/award communication network; financial accounting-payroll, disbursements, general, extramural funds, accounts receivable (own system), travel advance (own system); materiel management-purchasing, storehouse, property; planning-comprehensive operating budget (own system), space management; Office of Graduate Studies and Research (own system), departmental recharges (own system); all the above are U.of Cal. wide systems except where noted; WILL BE AUTOMATING: contract and grant administration-proposals, awards, security; financial accounting-departmental financial management; personnel-FTE allocation, affirmative action; HAS NOT AUTOMATED: materiel management-subcontracts; all programs (B).

Comments

Greatest problems are human, and concern control and operational coordination of systems.

SOFTWARE PACKAGE SUMMARY-1

1. Central Cashiering System

Description

does magnetic tape data collection, transaction handling and editing, cashier balancing, and collection reporting; inputs to UC General Ledger via magnetic tape; also used for non-Federally sponsored research.

Reports Generated

1) cash collections by cashier and overall; 2) month-end cash collections by cashier, by day, and monthly overall.

Other Traits

processing mode is batch; data base is integrated with index-sequential access; uses COBOL-68 Extended(S); security protection in data and operating system.

Resources Used

Burroughs 6700, Master Control Program(MCP)(S) operating system; 30K bytes high speed storage; tapes: 1 drive, 9 tracks, 800 bpi; discs: 20K bytes; I/O devices: card reader.

History of Package

developed in-house; implemented 10/72; last change 4/75.

Availability

all manuals available; for further information call Dennis Mullien, Manager, Admin. Data Systems, 714/452-4068, UCSD Computer Center (C-010)

Comments

This recording system revolves around the use of the SINGER/FRIDEN POS 902 cashiering terminal/registers and associated data collection device (magnetic tape).

SOFTWARE PACKAGE SUMMARY-2

2. General University Accounts Receivable System, GUARD

8. UNIVERSITY OF CALIFORNIA, SAN DIEGO

Description

does consolidation of departmental billings, cash collection interface, aging and dunning activities; inputs to UC General Ledger via magnetic tape; will have interactive terminal input; also used for non-Federally sponsored research.

Reports Generated

outstanding accounts, student delinquencies, collection agency status, and dunning notices.

Other Traits

same as package 1.

Resources Used

same as package 1 except uses 100K bytes high speed storage, 40K bytes of disc; also uses printer.

History of Package

developed in-house; implemented 4/75; last change 5/75.

Availability

all manuals available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Travel Advance Accounting System, TAAS

Description

does computerized recording, monitoring, aging and account reconciliation of University sponsored travel activity; also does 1) generation of lien, journal, and check transaction entries into General Ledger; 2) special "dun" letters for delinquent accounts; will have possible conversion to on-line processing utilizing CRTs; also used for non-Federally sponsored research.

Reports Generated

1) comprehensive travel account ledger; 2) monetary/trip/personnel statistics; 3) error diagnostics and audit trail lists.

Other Traits

same as package 1 except uses sequential access.

Resources Used

Burroughs 6700, Master Control Program (MCP)(S) operating system; 150K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 50K bytes; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 7/71; last change 1/75.

Availability

all manuals limited available; for further information call same as package 1.

Comments

This system has experienced much success. Any draw-backs or problems are minor and human related. Without exception, most problems originate at the source of data preparation.

SOFTWARE PACKAGE SUMMARY-4

4. General Recharge Billing System, GENRECHG

Description

does centralization of campus departmental billings for input to the University General Ledger; also generates 1) special recharge forms (departmental), 2) punched cards to initiate "lien drop" activity, 3) magnetic tape containing condensed billing information to interface into the UC General Ledger; also used for non-Federally sponsored research.

Reports Generated

1) batch balance and error diagnostic listings, 2) comprehensive summary listing of processed billing information.

Other Traits

same as package 1 except uses random access.

Resources Used

same as package 2; also uses card punch.

History of Package

developed in-house; implemented 2/72; last change 9/74.

Availability

all manuals limited available; for further information call same as package 1.

Comments

8. UNIVERSITY OF CALIFORNIA, SAN DIEGO

Greatest problems are human- in the areas of coordination, source data transcript errors and scheduling.

SOFTWARE PACKAGE SUMMARY-5

5. Computer Center Billing System, ACCTG

Description

captures and maintains billing records, accounts status and general statistics relative to usage of UCSD Computer Center facilities and bills accordingly; produces microfiche output of weekly and monthly reports; plan to alter system to run under the Burroughs standard "DMSII" Data-management system which will allow selective extraction of computer usage statistics for individual users; also used for non-Federally sponsored research.

Reports Generated

1) account characteristics update; 2) daily transactions and account status; 3) weekly transactions and account status; 4) monthly activity; 5) misc. usage by fund source.

Other Traits

same as package 1 except uses sequential and structured dictionary access.

Resources Used

same as package 3 except uses 1.6M bytes on disc, no card punch.

History of Package

developed in-house, implemented 10/70; last change 5/75.

Availability

all manuals available; for further information call same as package 1.

Comments

Large amount of disk storage currently in use should be eased somewhat through new implementation. Each account's "principal" investigator is provided with very exact details of each week's usage along with corresponding charges. Each account has a "limit" specified such that access is denied after this amount has been expended. The limit may be subsequently increased and the account re-opened.

SOFTWARE PACKAGE SUMMARY-6

6. Architects and Engineers Billing System, A&E

Description

handles departmental recharge activities, staff time reporting, expense and project distributions; also used for non-Federally sponsored research.

Reports Generated

staff time record, staff payroll by expense classification, project distribution summary, recharge listing.

Other Traits

same as package 1 except uses sequential access.

Resources Used

same as package 1 except uses 60K bytes on disc; also uses printer.

History of Package

developed in-house; implemented 10/69; last change 12/71.

Availability

Programmer Manual available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-7

7. Graphics and Reproduction Services Billing System, GRS

Description

records and reports all billing activity for Graphics and Reproduction Services; also generates General Ledger input tape; plan to add 1) department and machine error summaries, 2) monthly recharge summary; also used for non-Federally sponsored research.

Reports Generated

recharge error report, copier machine statistics report, recharge report for each department, plus summary.

Other Traits

same as package 1 except uses index-random access.

8. UNIVERSITY OF CALIFORNIA, SAN DIEGO

Resources Used

same as package 1 except uses 50K bytes high speed storage, 150K bytes on disc; also uses printer and CRT.

History of Package

developed in-house; implemented 8/70; last change 1/75.

Availability

Programmer and Operator Manuals limited available; for further information call same as package 1.

Comments

Interfaces with university-wide General Ledger system.

SOFTWARE PACKAGE SUMMARY-8

8. Mailing Division Billing System, MAILROOM

Description

records and reports all billing activity for the mailing division; generates General Ledger input tape; will have batch data entry via CRT; also used for non-Federally sponsored research.

Reports Generated

audit error list, processing summary, charges by account, recharge report for each department.

Other Traits

same as package 1 except uses index-random access.

Resources Used

same as package 1 except uses 100K bytes on disc; also uses printer.

History of Package

developed in-house; implemented 6/71; last change 7/74.

Availability

Programmer and Operator Manuals available; for further information call same as package 1.

Comments

Interfaces with university-wide General Ledger.

SOFTWARE PACKAGE SUMMARY-9

9. Telecommunications Billing System

Description

telecommunication toll and equipment recharge activities; magnetic tape input to UCSD General Ledger; also used for non-Federally sponsored research.

Reports Generated

1) toll and equipment usage by department, 2) detail equipment listing.

Other Traits

same as package 1 except uses sequential access.

Resources Used

same as package 1 except uses 90K bytes high speed storage, 30K bytes on disc; also uses printer and CRT.

History of Package

developed in-house; implemented 9/71; last change 10/74.

Availability

User and Programmer Manuals available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-10

10. Animal Resources Billing System, AR

Description

distributes and monitors costs of experimental animal upkeep, preparation and analysis; generates recharge forms to be sent to departments; updates disk file of YTD monthly cost summaries each month; also used for non-Federally sponsored research.

Reports Generated

1) recharge system interface; 2) transaction input and audit; 3) item cost report; 4) overall cost summary; 5) YTD cost summary; 6) departmental cost summary.

Other Traits

same as package 1 except uses sequential access; also uses B6700 Extended ALGOL(S).

Resources Used

Burroughs 6700, MCP(S) operating system; 96K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 310K bytes; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 7/73; last change 12/74.

Availability

User Manual available; for further information call same as package 1.

Comments

Update of ITEM/COST tables is unwieldy.

SOFTWARE PACKAGE SUMMARY-11

11. Office of Graduate Studies and Research, OGSR

Description

maintains records on graduate student funding, award, and appointments; run bi-weekly; also used for non-Federally sponsored research.

Reports Generated

1) student summary (all awards by student) with all student information; 2) reports of students and awards: alpha, department, award, department by award, social security number order; 3) funding statistics.

Other Traits

same as package 1 except uses sequential access.

Resources Used

same as package 1 except uses no tapes, 100K bytes on disc; also uses printer.

History of Package

developed in-house; implemented 5/71; last change 2/75.

Availability

Programmer and Operator Manuals available; for further information call same as package 1.

Comments

Greatest problems with human coordination and control.

SOFTWARE PACKAGE SUMMARY-12

12. Comprehensive Operating Budget System, COB

Description

generates bi-yearly reports of budgetary and expense data by campus organizational unit; extracts information from UC General Ledger and payroll systems; also used for non-Federally sponsored research.

Reports Generated

1) allocation/expenditure summary by FTE and dollars; 2) roster of salaried personnel; 3) profile of object code expenditures; 4) expenditures and allocations by function and fund groupings.

Other Traits

same as package 1 except uses sequential, random access.

Resources Used

Burroughs 6700, MCP(S) operating system; 36K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; discs: 90K bytes; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 12/73; last change 12/74.

Availability

all manuals available; for further information call same as package 1.

Comments

1) Some categorization and exception tables which are presently "handcoded" in the programs should be kept in table-files on disk. 2) Would be useful to allow user commentary to be directly input to appear on reports. 3) YTD payroll-expense and General Ledger information as consolidated within designated campus organizational units is available for input to a "general purpose" report generator for "ad hoc" reporting. Also, this information is updated monthly.

9. UNIVERSITY OF CALIFORNIA, SAN FRANCISCO MEDICAL CENTER

University of California, San Francisco Medical Center (FICE 001319)
(small, state, member of institutional system)
San Francisco, California 94143

ADMINISTRATIVE INFORMATION

Reporting Unit

Contracts and Grants Office, 1483 4th Ave., San Francisco, Ca. 94143; decentralized from but within administrative structure of institution; for further information call Stanley C. Bateman, Contracts and Grants Officer, 415/666-2977.

Administration Parameters for Contracts and Grants (FY74)

600 contracts and grants for r&d, health services, training for the amount \$42.5M (funded) from 50 Federal agencies; 200 FTE professional staff, 900 FTE technicians; fields of research include computer sciences, environmental science, life sciences, physical sciences, psychology, social sciences.

Computer Usage Profile

IBM 360/50, on-grounds, shared, intrainstitutional (by tapes and reports only); IBM 360/65, off-grounds, commercial, intrainstitutional (by tapes and reports only).

Functions Administered [2]

HAS AUTOMATED: grant/contract information system(RB)-proposal preparation, proposal and agency monitoring, multi-campus proposal/award communication network; HAS NOT AUTOMATED: financial accounting-fiscal reporting, property; planning and budgeting-all; indirect cost rate/fringe benefit rate-all; equipment and specialized research facilities-inventory; grant/contract information system(RB)-sponsoring agency liaison; cost sharing(RB)-all.

Comments

All the information submitted by this office to the U. of California northern computing facility are on tapes or reports. It is this information that is processed on the IBM 360/65.

SOFTWARE PACKAGE SUMMARY-1

1. Contracts and Grants System, CG

Description

provides an accurate status of all active contracts and grants, provides tools for control of current projects and prediction of future years grants; produces reports monthly.

Reports Generated

comparisons of proposals to awards, projects listed by principal investigator, reminder notices, and others.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses PL/1 F level and Optimizer(S).

Resources Used

IBM 360/50, OS/360(S) operating system; OS(S) dbms; 230K bytes high speed storage; tapes: 2 drives, 9 tracks; discs: 200 cyl. (7293 bytes/track, 20 tracks/cyl); I/O devices: card reader, printer.

History of Package

developed in-house; implemented 3/70; last change 6/75.

Availability

all manuals limited available; for further information call Dorothy Rath, Senior Programmer, 415/666-4515, U. of Ca., San Francisco, Ca. 94143.

Comments

The original software programs had been very large, causing maintenance and charges to be expensive. The system has been updated, with emphasis on using smaller programs, so that the cost of maintaining each has been decreased.

10. UNIVERSITY OF SOUTHERN CALIFORNIA

University of Southern California (FICE 001328)
(medium, independent, nonprofit, single institution)
University Park
Los Angeles, California 90007

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Interdisciplinary Program Development, Academic Administration and Research ADM 259, U. of Southern Ca.; decentralized from but within administrative structure of institution; for further information call Jack M. Nilles, Director, Interdisciplinary Program Development, 213/746-7464.

Administration Parameters for Contracts and Grants (FY74)

1300 contracts and grants for r&d, health services, training, construction for the amount \$31.4M(expended) from 8 Federal agencies; fields of research include all[1].

Computer Usage Profile

IBM 370/158, on-grounds, shared, intrainstitutional, computer network; PDP-10, on-grounds, shared, intrainstitutional, computer network; HP 2100-F, on-grounds, dedicated, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash receipts, cash disbursements, accounts receivable (partially), fiscal reporting, time and effort (partially); planning and budgeting-all; library support-serial listing; program management-cost control; WILL BE AUTOMATING: fiscal management-accounts receivable, time and effort; grant/contract information-proposal and agency monitoring; equal employment opportunity data; all (GB).

Comments

Software needs to be up-dated in some areas. There is a lag in applications of computer software to a variety of administrative areas.

SOFTWARE PACKAGE SUMMARY-1

1. Payroll System

Description

provides payroll for the University; also used for non-Federally sponsored research.

Reports Generated

too numerous to list.

Other Traits

processing mode is batch; data base is non-integrated with sequential, random access; uses Assembler F(S), COBOL ANS(S), PL/1 F(S); security protection in terminal, data.

Resources Used

IBM 370/158, OS-MVT-HASP(M) operating system; 200K bytes high speed storage; tapes: 4 drives, 9 tracks, 6250 bpi; discs: 300M bytes; I/O devices: card reader, printer, CRT, card punch.

History of Package

developed in-house; also used on IBM 360/40 with DOS; implemented 12/70; last change 2/74.

Availability

all manuals available; for further information call Keith Hunter, Director EDP, 213/746-2957, 1020 W. Jefferson, L.A., Ca. 90007.

Comments

Greatest problems are human.

SOFTWARE PACKAGE SUMMARY-2

2. Financial System

Description

accounts for all monies expended by the University; also used for non-Federally sponsored research.

Reports Generated

too numerous to list.

10. UNIVERSITY OF SOUTHERN CALIFORNIA

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses RPG(S), COBOL(S); security protection in data.

Resources Used

same as package 1.

History of Package

developed in-house; also used on IBM 360/40 with DOS; implemented 9/67; last change 9/73.

Availability

all manuals available; for further information call same as package 1.

Comments

Not many problems.

11. UNIVERSITY OF COLORADO

University of Colorado (FICE 007996)
(large, state, multicampus institution)
Regent Hall
Boulder, Colorado 80302

ADMINISTRATIVE INFORMATION

Reporting Unit

Administrative Data Processing, Box 12 Regent Hall; centralized with administrative structure of institution; for further information call Joseph E. Hayes, Director (Acting), Administrative Data Processing.

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS somewhat AUTOMATED: financial accounting-all; planning and budgeting; equipment-inventory; procurement-all; space-inventory, maintenance; personnel management; library support; cost sharing-records management(RF); project management--cost control(RF); internal audit; WILL BE AUTOMATING : financial accounting-annual letter of credit (7/75)(RF); all (GB) except where noted; has automated research administration functions for non-Federally sponsored research.

Comments

The majority of our problems stem from old inadequate systems that have been modified almost constantly over the last 5-8 years. A major effort is now underway to redesign and program our Finance system. A major requirement of the new systems will be the accumulation of detail actual costs attributable to defined cost centers. Listed below are the systems and/or subsystems scheduled for redesign in the next three to five years: 1) Payroll/Personnel 2) General Ledger 3) Departmental/Cost Center Ledger 4) Purchasing 5) Accounts Payable 6) Stores Inventory 7) Accounts Receivable 8) Equipment Inventory 9) Space Inventory/Utilization 10) Asset Accounting/Inventory 11) Budgeting 12) Physical Plant Accounting 13) Contracts and Grants Project Cost Accounting 14) Benefits Accounting.

12. UNIVERSITY OF CONNECTICUT

University of Connecticut (FICE 001417)
(medium, state, main campus of multicampus institution)
Storrs, Connecticut 06268

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of the Controller, Division of Grants and Contracts, decentralized from but within the administrative structure of institution; for further information call Harry L. Dest, Jr., Director, 203/486-4436.

Administration Parameters for Contracts and Grants (FY74)

250 contracts and grants for r&d and training for the amount \$8.0M (expended) from 10 Federal agencies; 340 FTE professional staff and technicians; fields of research include all[1].

Computer Usage Profile

IBM 370/135, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: fiscal administration in part; equipment and specialized research facilities ; space ; personnel management in part; library support; grant/contract information system in part; cost sharing in part; internal and Federal audit program; WILL possibly AUTOMATE: procurement; program management; all (GB).

Comments

Greatest problems are in human and software areas. Most of financial management and control is presently provided by hybrid programs-in part personnel and in part computers. Research administration information is extracted in report form from their general computer systems and is then manually manipulated. Biggest problem is in codes which change periodically due to changing requirements.

SOFTWARE PACKAGE SUMMARY-1

1. Payroll

Description

does payroll; also used for non-Federally sponsored research.

Reports Generated

update journal, payroll journal, expenditure analysis, distribution reports, deduction reports.

Other Traits

processing mode is batch ; data base is non-integrated with sequential access; uses ANSI COBOL(S); security protection in operating system.

Resources Used

IBM 370/135, DOS(S) operating system; tapes: 4 drives, 9 tracks, 1600 bpi; discs: 29.2M bytes; I/O devices: card reader, printer.

History of Package

developed in-house.

Availability

all manuals limited available; for further information call William J. Kissane, Director of Data Processing, 203/486-4526.

SOFTWARE PACKAGE SUMMARY-2

2. Accounting Reporting System

Description

fiscal reporting including cash receipts; also used for non-federally sponsored research.

Reports Generated

voucher register, detail transaction report, summary reports, operations report, project reports (reports are daily, monthly & annual).

Other Traits, Resources Used, History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Accounts Receivable

12. UNIVERSITY OF CONNECTICUT

Description

accounts receivable; also used for non-Federally sponsored research.

Reports Generated

file maintenance, transaction balancing, statements, summary report.

Other Traits, Resources Used, History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Equipment Inventory

Description

equipment inventory.

Reports Generated

file maintenance, detail listing, reports in various sequence with various totals.

Other Traits, Resources Used, History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-5

5. Space Inventory and Utilization

Description

space inventory.

Reports Generated

file maintenance, detail listing, reports in various sequences, report of space utilization by faculty, classroom utilization report.

Other Traits, Resources Used, History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-6

6. Library Circulation System

Description

library circulation control system; also used for non-Federally sponsored research.

Reports Generated

notices, statistical reports, status reports.

Other Traits, Resources Used, History of Package, Availability

same as package 1.

13. YALE UNIVERSITY

Yale University (FICE 001426)
(small, private, single institution)
155 Whitney Ave.
New Haven, Connecticut 06510

ADMINISTRATIVE INFORMATION

Reporting Unit

Grants and Contracts Financial Administration, 155 Whitney Ave., New Haven, Conn., 06510, centralized with administrative structure of institution; for further information call Joel P. Wasserman, Assistant Treasurer, 203/432-4540.

Administration Parameters for Contracts and Grants (FY 74)

1850 contracts and grants for r&d, health services, training for the amount \$45.0M (expended) from 19 Federal agencies; 2032 FTE professional staff, 950 FTE technicians; fields of research include all[1].

Computer Usage Profile

IBM 360/67, on-grounds, dedicated.

Functions Administered [2]

HAS AUTOMATED: fiscal administration-all; equipment-all; procurement-all; facilities: space-all, security, health and safety; personnel management-records, affirmative action; library-all; animal care-costing, facilities; grant/contract information system(R)-all but sponsoring agency liaison, plus health services; cost sharing(R)-all; internal audit; program management-management of laboratories/observatories/nuclear reactors, University/College Presses; all (GB) except where noted; has automated research administration functions for non-Federally sponsored research.

SOFTWARE PACKAGE SUMMARY-1

1. Personnel/Payroll Data Base, MANFILE

Description

handles payroll, historical and current expenditure analysis, forecasting, indirect cost rate/fringe benefit rate, personnel management; frequency: daily; also used for non-Federally sponsored research.

Reports Generated

in addition to subsystems described separately, reports employee turnover, bargaining unit manning, workmen's compensation.

Other Traits

processing mode is batch; data base is integrated with sequential, indexsequential, random access; uses Assembler(S), COBOL-F ANS(S); security protection in operating system and batch mode secure machine room.

Resources Used

IBM 360/67, OS-MVT(M) operating system; 150K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; discs: 84M bytes; I/O devices: card reader, card punch, printer.

History of Package

developed in-house; also used on IBM 360/40 with OS-MFT1; implemented 9/68; last change 5/75.

Availability

available through IBM as an IUP; for further information call Bernard J. Hayden, Director, Administrative Data Systems, 203/432-4230, Yale University.

SOFTWARE PACKAGE SUMMARY-1a

1a. Payroll System,,, subsystem of Personnel/Payroll Data Base

Description

does payroll; frequency: weekly, semi-monthly, monthly; also used for nonFederally sponsored research.

Reports Generated

exception register; checks; payroll register and recaps; deduction registers; deduction net changes; 941A, W2, 1099; time sheets, time cards, FLSA report; payroll distribution.

Other Traits, Resources Used, History of Package, Availability

same as package 1 except uses 5 tape drives.

SOFTWARE PACKAGE SUMMARY-1b

1b. Wage and Salary and Unemployment Compensation,,, subsystem of Personnel/
Payroll Data Base

Description

does analysis of General Appropriation and other fund sources; projections and adjustments to salary grid ranges; frequency: wage and salary on request, unemployment compensation monthly; also used for non-Federally sponsored research.

Reports Generated

wage and salary management reports; unemployment compensation reports.

Other Traits, Resources Used, Availability

same as package 1.

History of Package

developed in-house; implemented 6/70; last change in '75.

SOFTWARE PACKAGE SUMMARY-1c

1c. Benefits,,, subsystem of Personnel/Payroll Data Base

Description

handles fringe benefits management and planning; frequency: monthly; also used for non-Federally sponsored research.

Reports Generated

benefits analysis (by employee and by benefit); deduction reports; automatic rate changes.

Other Traits, Resources Used, Availability

same as package 1.

History of Package

developed in-house; implemented 9/68; last change 12/74.

SOFTWARE PACKAGE SUMMARY-1d

1d. EEO & HEW Reporting,,, subsystem of Personnel/Payroll Data Base

Description

does minority group employment reporting; male/female employment reporting; frequency: monthly, on request; also used for non-Federally sponsored research.

Reports Generated

reports on minority group employees by job title, salary level, dept., sex, race.

Other Traits, Resources Used, Availability

same as package 1.

History of Package

developed in-house; implemented 10/69; last change 11/74.

SOFTWARE PACKAGE SUMMARY-1e

1e. Pension Plan Valuation,,, subsystem of Personnel/Payroll Data Base

Description

does retirement plan cost projections; frequency: planning and projection on request, detailed valuation of actual retirement plan annually; also used for non-Federally sponsored research.

Reports Generated

detailed plan valuation, projected costs, gain and loss analysis, plan liabilities.

Other Traits

same as package 1; also uses FORTRAN IV(S).

Resources Used

same as package 1.

History of Package

developed in-house and joint effort with actuarial firm (Coopers & Lybrand); implemented 2/75; last change 5/75.

Availability

software package unavailable; for further information call same as package 1.

13. YALE UNIVERSITY

SOFTWARE PACKAGE SUMMARY-1f

1f. Faculty Panorama,,, subsystem of Personnel/Payroll Data Base

Reports Generated
presentation of senior faculty by degree date and department.
Other Traits, Resources Used
same as package 1, except COBOL type not specified.
History of Package
developed in-house; implemented 11/74.
Availability
same as package 1e.

SOFTWARE PACKAGE SUMMARY-1g

1g. Cost Accounting Distribution, CAD,, subsystem of Personnel/Payroll Data Base

Description
does cost-accounting distribution: labor, materials, outside contractors, over-head; frequency: monthly; also used for non-Federally sponsored research.
Reports Generated
costs and budget by individual job, department, university area.
Other Traits, Resources Used
same as package 1.
History of Package
developed in-house; implemented 7/70.
Availability
same as package 1e.

SOFTWARE PACKAGE SUMMARY-2

2. Stockroom Inventory

Description
physical inventory; frequency: annual; also used for non-Federally sponsored research.
Reports Generated
inventory by item, cost.
Other Traits
processing mode is batch; data base is non-integrated with sequential access; uses COBOL-ANS(S); security protection in operating system and in batch mode secure machine room.
Resources Used
IBM 360/67, OS-MVT(M) operating system; 150K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 56M bytes; I/O devices: card reader, printer, card punch.
History of Package
developed in-house; implemented 5/74.
Availability
software package unavailable; for further information call Bernard J. Hayden, Director Administrative Data Systems, 203/432-4230, Yale University.

SOFTWARE PACKAGE SUMMARY-3

3. Purchased Utilities

Description
record keeping of utilities services purchased by Yale U.; also used for managing non-Federally sponsored research.
Reports Generated
data for accounts payable system for vendor payment of utilities bills.
Other Traits
processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses COBOL(S); security protection in operating system.
Resources Used

13. YALE UNIVERSITY

IBM 360/67, CP OS-MVT operating system; 100K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; I/O devices: card reader, printer, card punch.
History of Package
developed in-house; implemented 1/68; last change 1/75.
Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-4

4. Medical School Physical Facilities

Description
inventory of buildings, rooms, location and occupants; tracks operations maintenance; used monthly; also used for non-Federally sponsored research.
Reports Generated
reports of buildings and facilities owned or used.
Other Traits
processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses Assembler(S), COBOL-F ANS(S); security protection in operating system.
Resources Used
IBM 360/67, OS-MVT(M) operating system; 65K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; I/O devices: card reader, printer.
History of Package
developed in-house; implemented 10/73; last change 5/75.
Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-5

5. Telephone Equipment Inventory

Description
controls all telephone equipment at Yale; charge cost back to departments; feeds data to other systems and draws data from other systems; also used for non-Federally sponsored research.
Reports Generated
monthly statements; detail of changes in equipment.
Other Traits
processing mode is batch; data base is non-integrated with sequential access; uses COBOL-ANS(S), EASYTRIEVE(S); security protection in operating system and batch processing secure machine room.
Resources Used
IBM 360/67, OS-MVT(M) operating system; tapes: 3 drives, 9 tracks, 800 bpi; I/O devices: card reader, printer.
History of Package
developed in-house; implemented 3/75; last change 3/75.
Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-6

6. Telephone Toll Charges, WATSBOX

Description
control all telephone charges, charge cost back to department; also used for non-Federally sponsored research.
Reports Generated
monthly statement.
Other Traits, Resources Used, Availability
same as package 5.
History of Package
developed in-house; implemented 10/74; last change 5/75.

SOFTWARE PACKAGE SUMMARY-7

13. YALE UNIVERSITY

7. Vendor File

Description

file of vendors; supports purchasing and accounts payable systems; done weekly; also used for non-Federally sponsored research.

Reports Generated

update register; control totals by vendor and status.

Other Traits

processing mode is batch; data base is integrated with sequential and random access; uses Assembler(S), COBOL-F ANS(S); security protection in operating system and by user verification (password).

Resources Used

same as package 1 except uses 144K bytes on disc, no card punch; also uses CRT.

History of Package

developed in-house; also used on IBM 360/40 with OS-MFT1; implemented 9/71; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8a

8a. General Accounting,,, subsystem of General Ledger Data Base

Description

does general ledger processing and reporting; frequency: daily transaction list and balance, weekly transaction handling, monthly posting and reports; also used for non-Federally sponsored research.

Reports Generated

detailed and summarized statements-monthly, quarterly, fiscal year-end; budget to actual comparison.

Other Traits

processing mode is batch; data base is integrated with sequential, indexsequential, random access; uses Assembler(S), COBOL-ANS(S); security protection in operating system and in batch-processing secure machine room.

Resources Used

IBM 360/57, OS-MVT(M) operating system; 300K bytes high speed storage; tapes: 5 drives, 9 tracks, 800 bpi; discs: 419 cyl.; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 7/72; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8b

8b. Funds Administration,,, subsystem of General Ledger Data Base

Description

portion of general ledger system dealing with sources of funds; frequency: monthly, annually; also used for non-Federally sponsored research.

Reports Generated

detail statements by source of funds.

Other Traits

same as package 8a.

Resources Used

IBM 360/57, OS-MVT(M) operating system; 200K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 65 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 7/72; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8c

8c. Endowment Pool Unit,,, subsystem of General Ledger Data Base

13. YALE UNIVERSITY

Description

distribution of income to Yale's endowment funds via the single pool concept; frequency: quarterly; also used for non-Federally sponsored research.

Reports Generated

update register, units report of endowment master, comparison report of master and general ledger funds.

Other Traits

processing mode is batch; data base is integrated with sequential and indexsequential access; uses COBOL-ANS(S); security protection in operating system and batch mode processing.

Resources Used

same as package 1 except uses 70K bytes on disc, no card punch.

History of Package

developed in-house; also used on IBM 360/40 with OS-MFT1; implemented 9/74; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8d

8d. Overhead Accounting,,, subsystem of General Ledger Data Base

Description

does yearly processing for overhead analysis and projections; frequency: annually also used for non-Federally sponsored research.

Reports Generated

detailed expense statements.

Other Traits

same as package 8a.

Resources Used

IBM 360/67, OS-MVT(M) operating system; 256K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 68 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 8/73; last change 10/74.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8e

8e. Grants and Contracts Administration,,, subsystem of General Ledger Data Base

Description

grant and contract portion of General Ledger System; frequency: monthly, quarterly, annually.

Reports Generated

package meshed with General Ledger so that extensive reports are possible.

Other Traits, Resources Used

same as package 8a except uses 256K bytes high speed storage, 2 tape drives.

History of Package

developed in-house; implemented 7/72; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8f

8f. Medical School-Grant and Contract Analysis,,, subsystem of General Ledger Data Base

Description

grant and contract analysis for Yale Medical School; frequency: monthly; also used for non-Federally sponsored research.

Reports Generated

package meshed with General Ledger so that extensive reports are possible.

Other Traits

same as package 8a.

Resources Used

13. YALE UNIVERSITY

IBM 360/67, OS-MVT(M) operating system; 200K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 8 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 2/75; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8g

8g. Accounting-Year End Processing and Reporting,,, subsystem of General Ledger Data Base

Description, Reports Generated

generates fiscal year-end balance sheets and operating statements; also used for non-Federally sponsored research.

Other Traits

same as package 8a.

Resources Used

same as package 8d except uses 65 cyl. on disc.

History of Package

developed in-house; implemented 8/73; last change 10/74.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-8h

8h. Historic Book of Endowment Funds,,, subsystem of General Ledger Data Base

Description

does fiscal reporting; frequency: on request; also used for non-Federally sponsored research.

Reports Generated

comparison of original value of gifts to Yale with current value.

Other Traits, Availability

same as package 2 except data base is integrated.

Resources Used

same as package 8f except uses 148K bytes high speed storage, no discs.

History of Package

developed in-house; implemented 7/74; last change 5/75.

SOFTWARE PACKAGE SUMMARY-8i

8i. System Parameter File,,, subsystem of General Ledger Data Base

Description

File Maintenance System, contains parameters which are applicable to applications systems; allows user to supply changes to many systems and programs with variable information which controls processing; frequency: on request; also used for non-Federally sponsored research.

Other Traits

same as package 8a.

Resources Used

same as package 8f except uses 200K bytes high speed storage, 1 tape drive.

History of Package

developed in-house; implemented 7/72; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-9

9. Grants and Contracts Property Inventory

Description

does inventory; frequency: on request; also used for non-Federally sponsored research.

13. YALE UNIVERSITY

Reports Generated
controls and reports on Government owned equipment.
Other Traits, Availability
same as package 2.
Resources Used
same as package 8h.
History of Package
developed in-house; implemented 7/75; last change 5/75.

SOFTWARE PACKAGE SUMMARY-10

10. Check Reconciliation

Description
for accounts payable and payroll; frequency: daily; also used for non-Federally sponsored research.
Reports Generated
reconciles all checks written by accounts payable and payroll.
Other Traits
data base is integrated with sequential access; uses COBOL-F ANS(S); security protection in operating system.
Resources Used
IBM 360/67, OS-MVT(M) operating system; 40K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; I/O devices: card reader, printer; also uses IBM 082 Sorter.
History of Package
developed in-house; also used on IBM 360/40 with 1401 Comp os; implemented 1972; last change 5/75.
Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-11

11. Purchase Order Processing

Description
used for procurement; frequency: weekly; also used for non-Federally sponsored research.
Reports Generated
control and reporting of one-time purchase orders.
Other Traits
same as package 8a except no random access, security protection in operating system only.
Resources Used
same as package 10 except uses 75K bytes on disc, no sorter.
History of Package
developed in-house; also used on IBM 360/40 with 1401 Comp OS; implemented 1972; last change 5/75.
Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-12

12. Standing and Blanket Purchase Orders

Description
used for procurement; frequency: weekly; also used for non-Federally sponsored research.
Reports Generated
control and reporting of continuous purchase orders.
Other Traits
same as package 11.
Resources Used
same as package 10 except uses 30K bytes on disc; no sorter.
History of Package
developed in-house; implemented 1972; last change 5/75.

13. YALE UNIVERSITY

Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-13

13. Machine Contracts

Description
for procurement inventory; frequency: monthly; also used for non-Federally sponsored research.

Reports Generated
inventory, reporting of office and business machine rentals.

Other Traits
processing mode is batch; data base has sequential, index-sequential access; uses COBOL-ANS(S); security protection in operating system.

Resources Used
same as package 10 except uses 2 tape drives, no sorter; also uses card punch.

History of Package
same as package 12.

Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-14

14. Accounts Payable System

Description
handles disbursements; frequency: daily; also used for non-Federally sponsored research.

Reports Generated
checks to vendors; 1099 forms; W2 forms; year-to-date activity by vendor.

Other Traits
processing mode is batch; data base is integrated with sequential access; uses 1401 Autocoder(S); security protection in operating system.

Resources Used
IBM 360/67, OS-MVT(M) (1401 Comp) operating system; 15K bytes high speed storage; tapes: 4 drives, 9 tracks, 800 bpi; I/O devices: card reader, printer, card punch.

History of Package
developed in-house; also used on IBM 360/40 with 1401 Comp OS and on IBM 1401; implemented 1969; last change 5/75.

Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-15

15. Budget System,,, subsystem of Personnel/Payroll and General Ledger Data Bases

Description
handles planning and budgeting; produces and maintains university budget; also used for non-Federally sponsored research.

Reports Generated
yields detailed worksheets by budgetary unit and budget analyses.

Other Traits
same as package 13; also has integrated data base and security protection in user verification (password).

Resources Used
IBM 360/67, CP OS MVT operating system; 150K bytes high speed storage; tapes: 4 drives, 9 tracks, 800 bpi; discs: 100 cyl. on IBM 2314; I/O devices: card reader, printer, card punch, CRT.

History of Package
developed in-house; implemented 9/72; last change 5/75.

Availability
same as package 2.

SOFTWARE PACKAGE SUMMARY-16

13. YALE UNIVERSITY

16. Student Data Base

Description, Reports Generated

registers, back-up controls; frequency: weekly; also used for non-Federally sponsored research.

Other Traits

same as package 8a except no security protection in operating system.

Resources Used

IBM 360/67, OS-MVT(M) operating system; 100K bytes high speed storage; tapes: 4 drives, 9 tracks, 800 bpi; discs: 46M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 9/71; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-16a

16a. Graduate Student System,,, subsystem of Student Data Base

Description

graduate student records; frequency: weekly; also used for non-Federally sponsored research.

Reports Generated

statistical reporting.

Other Traits

processing mode is batch; data base is integrated with sequential, indexsequential, random access; uses BAL(S), COBOL(S); security protection in operating system and via password.

Resources Used

IBM 360/67, CP OS-MVT operating system; 100K bytes high speed storage; tapes: 3 drives; 9 tracks, 800 bpi; discs: 200 cyl. on IBM 2314; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 9/71; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-16b

16b. Bursar Accounts Receivable,,, subsystem of Student Data Base

Description

handles accounts receivable; frequency: weekly; also used for non-Federally sponsored research.

Reports Generated

list and balance; trial balance; transaction journal; delinquency report; billing.

Other Traits

same as package 16a except uses no COBOL(S).

Resources Used, History of Package, Availability

same as package 16a.

SOFTWARE PACKAGE SUMMARY-16c

16c. Student Census Reporting,,, subsystem of Student Data Base

Description

handles undergraduate student records; frequency: weekly; also used for non-Federally sponsored research.

Reports Generated

statistical census reports.

Other Traits, Resources Used, History of Package, Availability

same as package 16a.

SOFTWARE PACKAGE SUMMARY-17

13. YALE UNIVERSITY

17. Student Loan System

Description, Reports Generated

transaction journal, list and balance, transaction fund summary; status report, delinquency report, billing, senior letters; also used for non-Federally sponsored research.

Other Traits

same as 8a except no security protection in operating system.

Resources Used

same as package 16 except uses 200K bytes high speed storage; 28M bytes on disc.

History of Package

developed in-house; implemented 1/75; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-13

18. Department File

Description

contains department related data such as chairman, statement recipient, address, organizational structure.

Other Traits

same as package 8a except no security protection in operating system.

Resources Used

same as package 16 except uses 1 tape drive; 10M bytes on disc.

History of Package

developed in-house; implemented 9/59; last change is current.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-19

19. Position Description File, JOB FILE

Description

handles job related data: job code, title, labor grade, workmen's compensation code, HEW code, EEO code; also used for non-Federally sponsored research.

Other Traits, Resources Used, Availability

same as package 18.

History of Package

developed in-house; implemented 9/63; last change 5/75.

SOFTWARE PACKAGE SUMMARY-20

20. Seer Operating System, SEER

Description

time sharing system; OS compatible (version 21.7); on-line; also used for non-Federally sponsored research.

Other Traits

processing mode is interactive; data base access method developed in-house; uses Assembler(S); security protection in operating system and via password.

Resources Used

IBM 360/67, SEER (custom) operating system; 100K bytes high speed storage; discs: 14M bytes.

History of Package

developed in-house; also used on IBM 360/30, IBM 360/40, IBM 360/50; implemented 4/66; last change 5/75.

Availability

for further information call same as package 2.

SOFTWARE PACKAGE SUMMARY-20a

20a. MANFILE Display System,,, subsystem of Personnel/Payroll Data Base and SEER System

13. YALE UNIVERSITY

Description

yields on-line display of Personnel/Payroll Data Base: individual records; demographic summaries; also used for non-Federally sponsored research.

Other Traits

processing mode is interactive; data base is integrated with sequential, index-sequential, random, and in-house type access; uses Assembler(S), COBOL E,F(S); security protection in operating system and via password.

Resources Used

IBM 360/67, SEER OS(custom); 100K bytes high speed storage; discs: 56M bytes; I/O devices: card reader, CRT.

History of Package

developed in-house; implemented 2/69; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-20b

20b. Yale Academic Information Directory,,, subsystem of Student Data Base and SEER System

Description

generates on-line display of student records; also used for non-Federally sponsored research.

Reports Generated

student records.

Other Traits, Resources Used, History of Package, Availability

same as package 16a except processing mode is interactive.

SOFTWARE PACKAGE SUMMARY-20c

20c. Vendor File Display System,,, subsystem of Vendor File and SEER System

Description, Reports Generated

on-line display of vendors by name or vendor number, address; statistics on purchasing, accounts payable; frequency: daily; also used for non-Federally sponsored research.

Other Traits

same as package 7 except processing mode is interactive and uses COBOL-ANS(S).

Resources Used

IBM 360/67, OS MVT(M) operating system; 65K bytes high speed storage; disc: 144K bytes; I/O devices: CRT.

History of Package

developed in-house; also used on IBM 360/40 with OS-MFT1; implemented 1972; last change 5/75.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-20d

20d. Table of Organization,,, subsystem of Department File, Job File, and SEER System

Description

allows on-line update and display of assigned and unassigned positions by funding category, job code, department; also used for non-Federally sponsored research.

Other Traits, Resources Used

same as package 20 except uses 28M bytes on disc; also uses tapes: 1 drive, 9 tracks, 300 bpi.

History of Package

developed in-house; implemented 3/75; last change 5/75.

Availability

same as package 2.

Georgetown University (FICE 001445)
(small, Roman Catholic, single institution)
Washington, D.C. 20007

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Sponsored Programs, 37th and O St., N.W., Washington, D.C. 20007; centralized with administrative structure of institution; for further information call Sam A. Kimble, Administrator of Sponsored Programs, 202/625-3151.

Administration Parameters for Contracts and Grants (FY74)

175 contracts and grants for r&d, health services, training for the amount \$19.0M (expended) from 12 Federal agencies; 400 FTE professional staff; fields of research include business, environmental science, life sciences, physical sciences, psychology, social sciences, and law.

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all except property; all (GB).

SOFTWARE PACKAGE SUMMARY-1

1. Budget and Expense Reporting System,,, subsystem of Accounting System

Description

reports current month income and expense elements and year-to-date budget and expense comparisons; also used for non-Federally sponsored research.

Reports Generated

budget and expense statements.

Other Traits

processing mode is batch; data base is integrated with sequential, indexsequential access; uses ADPAC H 7(S); security protection in record and operating system.

Resources Used

IBM 370/145, OS(S) operating system; IBM ISAM dbms; a 3330 disc for high speed storage; 1600 bpi; discs: 1/2 of a 3330; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 360/30 with DOS; implemented 1/73; last change current.

Availability

software package is limited available at purchase price of \$1,000; all manuals are limited available; for further information call Paul McDonald, Assistant Director, 202/625-4036, Ryan Admin. Bldg., 37th and O St., N.W., Wash., D.C., 20007.

Comments

It is a batch system and therefore has input bottlenecks.

15. GEORGE WASHINGTON UNIVERSITY

George Washington University (FICE 001444)
(medium, independent, non-profit, single institution)
Washington, D.C. 20052

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Sponsored Research, 2121 Eye St., N.W., Washington, D.C. 20052; decentralized from but within administrative structure of institution; for further information call Susan Hart, Executive Associate, 202/676-6255

Administration Parameters for Contracts and Grants (FY74)

310 contracts and grants for r&d, health services, training for the amount \$14.0M (funded) from 25 Federal agencies; 433 FTE professional staff, 114 FTE technicians; fields of research include all[1].

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property and time and effort reporting; planning and budgeting-historical and current expenditure analysis; indirect cost rate/fringe benefit rate-expenditure and budget analysis; all (GE). HAS NOT AUTOMATED: financial accounting-property; equipment and specialized research facilities-inventory; procurement; grant/contract information system-all but communication network; cost sharing-all.

SOFTWARE PACKAGE SUMMARY-1

1. Financial Accounting, CMV, CMXXX

Description

handles payrolls, budget control, expenditures, commitments; will be adding integration of files, data management; also used for nonFederally sponsored research.

Reports Generated

checks, registers, summaries, detail vouchers.

Other Traits

processing mode is batch; data base on tape files with sequential access; uses Autocoder(M), COBOL-ANS(S); security protection in transmission, record, data, and operating system.

Resources Used

IBM 370/145, OS/VSI(M) operating system; 524K on 1 unit of high speed storage; tapes: 4 drives, 9 tracks, 800 bpi; discs: 600M on 6 units; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; also used on IBM 360/30 with DOS and IBM 1401; last change 2/75.

Availability

all manuals unavailable.

Comments

The present systems were designed for a card oriented processing system i.e. 1401. All systems are presently being converted to operate in an IBM 370 O.S. environment.

16. FLORIDA STATE UNIVERSITY

Florida State University (FICE 001489)
(medium, state, member of institutional system)
Tallahassee, Florida 32306

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Graduate Studies and Research, 203 Dodd Hall, Tallahassee, Florida, 32306; centralized with administrative structure of institution; for further information call Richard T. Lutz, Assistant Director of Research, 904/644-5260.

Administration Parameters for Contracts and Grants (FY74)

contracts and grants for r&d, training for the amount \$10.9M (expended) from 30 Federal agencies; 145 FTE professional staff, 54 FTE technicians; fields of research include environmental science, life sciences, mathematics, physical sciences, psychology, social sciences.

Computer Usage Profile

IBM 360/40, on-grounds, shared, intrainstitutional; CDC 6400, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: financial accounting-payroll, cash receipts, cash disbursements, property, fiscal reporting; purchasing; space-inventory, utilization/allocation; personnel management-current activities; equipment-inventory, security, utilization/allocation; WILL BE AUTOMATING: financial accounting-time and effort reporting; grant/contract information system(R)-proposal and agency moni historical record maintenance; cost sharing(R)-records mgmt;all (GB) unless noted. tenance; cost sharing(R)-records management; all (GB) except where noted.

Comments

Receipts and disbursements are coded in accordance with a prescribed State system of classification which often bears no relationship to granting/contracting agency cost categories. As such an inordinate amount of time and energy is expended by our staff in translating "object code" classifications into agency cost categories. (It should be noted here that this situation is further exacerbated by the lack of consistent cost structuring among granting agencies.) The financial system currently utilized for research administration is better suited for the purposes of general administration for which it was designed. Relatively few modifications have been made to adapt it to the unique requirements of research administration. The State, however, is currently working on a contract and grant sub-system to the "Core" financial.

SOFTWARE PACKAGE SUMMARY-1

1. Financial System, CORE Fiscal System

Description

handles financial administration-financial accounting[2]; used in 7 out of 9 Universities in State University System of Florida; is the CORE of a financial system that has other modules (i.e., payroll, accounts receivable, property records, financial aid); also used for non-Federally sponsored research.

Reports Generated

daily activity, accounts receivable and payable; general ledger, dept. ledger.

Other Traits

processing mode is batch; data base is partially integrated with index-sequential and Amigos access; uses COBOL(S); security protection in terminal, data, record.

Resources Used

IBM 360/50, 360/OS(S) operating system; 100M (AMPEX 2314 equiv.) high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 900M (AMPEX 2314 equiv.); I/O devices: card reader, printer, card punch, CRT; also uses COM output microfiche.

History of Package

developed as joint effort with State University System personnel; translated to Univac COBOL(S), IBM 360 COBOL(S); also used on Univac 1106 and IBM 360/50; also used by 7 of 9 universities in SUS of Florida; implemented 7/71; last change 1/75.

Availability

User Manual available; other manuals limited available; for further information contact Mr. Earl Bellow, UNIFTRAN Coord., SUS-BOR, Collins Bldg, Tallahassee, Fla.

Comments

Greatest problems are human. FSU has large volumes of input and coding of transactions can be difficult.

17. UNIVERSITY OF MIAMI

University of Miami (FICE 001536)
(medium, independent, non-profit, single institution)
Coral Gables, Florida 33124

ADMINISTRATIVE INFORMATION

Reporting Unit

Vice President for Academic Affairs, University of Miami; centralized with administrative structure of institution; for further information call John T. Schmitt, Computer Services, or Robert Fuerst, Academic Affairs.

Administration Parameters for Contracts and Grants (FY 74)

1000 contracts and grants for r&d, health services, training, construction for the amount \$37.0M (funded) from 50 Federal agencies; 1081 FTE professional staff, 1000 FTE technicians; fields of research include engineering, environmental science, life sciences, mathematics, physical sciences, psychology.

Computer Usage Profile

UNIVAC 1106, on-grounds, intrainstitutional.

Comments

Greatest problem is maintaining and developing software in the face of rising requests for changes and declining staff budgets.

[Ed.Note-This University has contracted the operation of its computing services to a private company and Mr. John Schmitt is the company representative on campus.]

SOFTWARE PACKAGE SUMMARY-1

1. Payroll System

Description

handles financial accounting-payrolls; also used for non-Federally sponsored research.

Reports Generated

59, some of which are: payroll checks, payroll check and DED register, W-2 statements, HEW reports, fringe benefit journals, time cards, earnings reports, quarterly FICA & unemployment reports, check reconciliation tape.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL(S).

Resources Used

Univac 1106, Exec 8(S) operating system; 50K words (36 bit) high speed storage; tapes: 4 drives, 9 tracks, 1600 bpi; drums: 524288 words; discs: 19M words (36 bit); I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 360/65 with OS HASP and IBM 370/155 with OS HASP; implemented 6/69; last change 5/75.

Availability

User Manual limited available, Programmer and Operator Manuals available; for further information call John Schmitt, Director, Computer Services, 305/284-3961, University of Miami/SCT, P.O. Box 248011, Coral Gables, Fl. 33124.

Comments

The system is cumbersome to maintain due to many modifications which were made during the past 5 years.

SOFTWARE PACKAGE SUMMARY-2

2. Financial Data Base, FDB, FHD003

Description

handles financial accounting.

Reports Generated

82, some of which are: expenditures-sponsored projects; sponsored projects trial balance; daily sponsored projects expenditure trial balance; ending sponsored project expenditure statement; sponsored project revenue statement; sponsored project expenditure statement; sponsored programs (research basis); closed sponsored programs by year closed.

Other Traits

processing mode is batch; data base is partially integrated with sequential,

17. UNIVERSITY OF MIAMI

index-sequential access; uses COBOL-ANS-level A8(S).

Resources Used

Univac 1106, Exec 8(S) operating system; 64K words (36 bit) high speed storage; tapes: 5 drives, 7/9 tracks, 1600/550 bpi; drums: 524288 words; discs: 15K tracks; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; also used on IBM 370/155 with OS; implemented 6/70; last change 1/75.

Availability

Programmer and Operator Manuals limited available; for further information call same as package 1.

Comments

Programs are becoming over maintained.

SOFTWARE PACKAGE SUMMARY-3

3. Purchase Order/Payable System, POPS

Description

handles procurement; also used for non-Federally sponsored research.

Reports Generated

45, some of which are: checks, check registers, invoice registers, vendor analysis credit memo listings, purchase order report, instant cash check reports, transact reg.

Other Traits

data base is non-integrated with index-sequential, random access; uses COBOL(S), Assembly Language Sub-Programs(S).

Resources Used

same as package 1 except uses 60K words high speed storage, 2 tape drives.

History of Package

developed in-house; also used on IBM 360/65 with OS Hasp and IBM 370/155 with OS Hasp; also used by College of Petroleum and Minerals, Dubais, Saudi Arabia and University of Rochester, Rochester, N.Y.; implemented 7/71; last change 1/75.

Availability

User Manual available, Programmer and Operator Manuals limited available; for further information call same as package 1.

The system has a non-standard random access method. All transactions belonging to one purchase order are linked together via a pointer from one record to the following one. There is no limit to the number of continuations. This processing becomes time consuming if there are many purchase orders where transactions number several hundred or more.

SOFTWARE PACKAGE SUMMARY-4

4. Student Loan Billing

Description

handles financial accounting-student loan billing; also used for non-Federally sponsored research.

Reports Generated

26, some of which are: loan additions, payment posting, bills, billing register, trial balance, status report, repayment schedules, maintenance report, journal tapes.

Other Traits

data base is non-integrated with index-sequential access; uses COBOL(S).

Resources Used

same as package 1 except uses 40K words (36 bit) high speed storage; 2 tape drives.

History of Package

developed in-house and out-of-house at Wisconsin State University, Oshkosh; also used on IBM 360/30 with DOS; also used by Wisconsin State University, Oshkosh; implemented 4/73; last change 3/75.

Availability

Programmer and Operator Manuals limited available; for further information call same as package 1.

Comments

The original system processed only Federal Loans. The System was modified to pro-

17. UNIVERSITY OF MIAMI

cess institutional loans also. The system was also modified to interface with the Financial Data Base.

SOFTWARE PACKAGE SUMMARY-5

5. Facility Inventory

Description

handles space inventory, i.e., updates, lists, creates department file, generates reports; also used for non-Federally sponsored research.

Reports Generated

lists by department, room function and room type, room function by building, square feet by major room type.

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses COBOL(S), FORTRAN V(S).

Resources Used

Univac 1106, Exec 8(S) operating system; 30K words (36 bit) high speed storage; tapes: 2 drives, 9 track, 1600 bpi; I/O devices: card reader, printer, tape, disc.

History of Package

developed as a joint effort with User's Office; implemented 6/72; last change 5/75.

Availability

User Manual unavailable; Programmer and Operator Manuals limited available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-6

6. Cost Sharing and Overhead

Description

handles cost sharing-records management; also used for non-Federally sponsored research.

Reports Generated

cost sharing and overhead journals activity reports, error reports.

Other Traits

same as package 1; also uses index-sequential access.

Resources Used

Univac 1106, Exec 8(S) operating system; 20K words (36 bit) high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 800 tracks; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 360/65 with OS and IBM 370/155 with OS; implemented 10/70; last change 1/75.

Availability

all manuals available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-7

7. Property Control System

Description

handles financial accounting-property; also used for non-Federally sponsored research.

Reports Generated

42, some of which are: lists by history, department, commodity, selected commodity, dollar value, transactions, insurance, agencies; reports are monthly, quarterly, semi-annually, annually, on request.

Other Traits

same as package 1; also uses index-sequential access.

Resources Used

Univac 1106, Exec 8 operating system; 40K words (36 bit) high speed storage; tapes: 6 drives, 9 tracks, 1600/800 bpi; discs: 800 tracks.

History of Package

developed in-house; implemented 7/75.

Availability

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all manuals limited available; for further information call same as package 1.

Comments

Greatest problems are human.

SOFTWARE PACKAGE SUMMARY-8

8. Budget System

Description

handles planning and budgeting-historical and current expenditure analysis, forecasting.

Reports Generated

budget request, budget recap of income and expenditures, original allotments to the Financial Accounting (FDB).

Other Traits

same as package 1.

Resources Used

same as package 1 except uses 20K words (36 bit) high speed storage, 2 tape drives.

History of Package

developed in-house; also used on IBM 360/65 with OS HASP and IBM 370/155 with OS HASP; implemented 6/69; last change 1/75.

Availability

User and Programmer Manuals unavailable; Operator Manual available; for further information call same as package 1.

Comments

The System consists of 54 programs many of which perform a single functions; this necessitates multiple passes of the master file.

SOFTWARE PACKAGE SUMMARY-9

9. Accounts Receivable

Description

handles financial accounting-accounts receivable.

Reports Generated

14, covering various trial balances and statements.

Other Traits

same as package 1.

Resources Used

Univac 1106, Exec 8(S) operating system; 35K words (36 bit) high speed storage; tapes: 4 drives, 9 tracks, 1600 bpi; discs: 2 tracks; I/O devices: card reader, card punch, tape.

History of Package

developed in-house; also used on IBM 360/65 with OS and IBM 370/155 with OS; implemented 6/71; last change 12/74.

Availability

all manuals available; for further information call same as package 1.

18. GEORGIA INSTITUTE OF TECHNOLOGY

Georgia Institute of Technology (FICE 002569)
(small, state, main campus of a multi-campus institution)
Atlanta, Georgia 30332

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Contract Administration, Georgia Inst. of Tech., Atlanta, Ga. 30332; decentralized from and outside the administrative structure of institution (reports to V.P. for Research); for further information call Mr. E. E. Renfro, Director, Contract Administration, 404/394-4810, or Mr. P.W. Saffold, Head, Program Management Division, Office of Contract Administration, 404/394-4816.

Administration Parameters for Contracts and Grants (FY74)

200 contracts and grants for r&d for the amount \$8.2M (funded) from 17 Federal agencies; 510 FTE professional staff, 62 FTE technicians; fields of research include all[1] plus interdisciplinary programs.

Computer Usage Profile

CYBER 70/74-28, on-grounds, shared; CDC 6400, on-grounds, shared.

Functions Administered

HAS AUTOMATED: fiscal administration-financial accounting, budget preparation, indirect cost rate; equipment and facilities (partial); personnel management; library support; program management (partial); all (GB).
all but library support being reprogrammed(75); WILL also BE AUTOMATING: grant/contract information system(76).

Comments

Greatest problems are lack of resources (personnel and funds) to expand and/or develop required systems. Wholeheartedly subscribe to the Directory, and exchange of information. We need all the assistance we can get.

19. UNIVERSITY OF GEORGIA

University of Georgia (FICE 001598)
(medium, state, single institution)
Athens, Georgia 30602

ADMINISTRATIVE INFORMATION

Reporting Unit

Vice President for Research, University of Georgia, Athens, Georgia 30602; decentralized from but within administrative structure of institution; for further information call Dr. Robert C. Anderson, V.P. for Research, 404/542-3360.

Administration Parameters for Contracts and Grants (FY74)

164 contracts and grants for r&d for the amount \$7.3M (expended) from 15 Federal agencies; 398 FTE professional staff, 61 FTE technicians; fields of research include all[1].

Computer Usage Profile

IBM 370/158, on-grounds, shared, intrainstitutional; IBM 360/65, on-grounds, shared, intrainstitutional; used interchangeably via ASP.

Functions Administered

HAS AUTOMATED: financial accounting-payroll, accounts receivable, fiscal reporting; planning and budgeting-current expenditures; equipment and specialized research facilities-inventory, maintenance; procurement-purchasing of supplies; grant/contract information system(RF)-proposal and agency monitoring; all (GB) except where noted; has automated research administration functions for non-Federally sponsored research.

Comments

Greatest problems are human.

SOFTWARE PACKAGE SUMMARY-1

1. Accounting & Budget Control,, PCAS

Description

handles fiscal administration, financial accounting, fiscal reporting; calculates sponsored account fund balances on the computer thus eliminating manual record keeping; will be adding on-line terminal updating and data collection; also used for non-Federally sponsored research.

Reports Generated

control reports, trial balance, account status statements, fund balance reports, expense/income reports, progress reports, project life expenditures.

Other Traits

processing mode is batch; data base is partially integrated with index-sequential access; uses ANS COBOL v.3, r.3.2(S); security protection in data, record, operating system.

Resources Used

IBM 370/158, OS/VS2-ASP(S) operating system; 150K bytes high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 350 cyl.; I/O devices: card reader, card punch, printer, tapes, disc.

History of Package

developed in-house; also used on IBM 360/30 with DOS; also used by West Georgia College, Carrolton, Ga.; implemented 6/71; last change 5/75.

Availability

Operator, Control, and General Systems Manuals available; for further information call James Ricks, Systems Designer, 404/542-4296, U. of Ga.

SOFTWARE PACKAGE SUMMARY-2

2. Payroll,, PAPR

Description

handles fiscal administration, financial accounting-payroll; will be adding on-line terminal inquiry and update; also used for non-Federally sponsored research.

Reports Generated

checks, registers, balance reports, maintenance reports, insurers reports, taxing authority reports, cost summary reports.

Other Traits

same as package 1 except data base is integrated with sequential, indexsequential access.

Resources Used

IBM 370/158, OS/VS2-ASP(S) operating system; 220K bytes high speed storage; tapes: 4 drives, 9 tracks, 1600 bpi; discs: 300 cyl.; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; also used on IBM 360/30 with DOS; implemented 7/70; last change 5/75.

Availability

Operator Control, and General Systems Manuals available; for further information call Bill Collins, Programmer III, 404/542-4296, U. of Ga.

SOFTWARE PACKAGE SUMMARY-3

3. Encumbrance and Disbursement,, PCED

Description

handles fiscal administration, cash receipts, cash disbursements, financial accounting, accounts receivable; also does check writing; will be adding integrated data base on-line and terminal inquiry; also used for non-Federally sponsored research.

Reports Generated

selected account status, transaction report, vendor analysis, encumbrance reports.

Other Traits

same as package 1 except data base is non-integrated with sequential access.

Resources Used

IBM 370/158, OS/VS2-ASP(S) operating system; 128K bytes high speed storage; tapes:

19. UNIVERSITY OF GEORGIA

2 drives, 9 tracks, 1600 bpi; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; also used on IBM 360/30 with DOS, IBM 360/65 with OS, and IBM 360/50 with OS; also used by West Georgia College, Carrollton, Ga.; implemented 9/70; last change 5/75.

Availability

Operator, Control, and General Systems Manuals available; for further information call Karl Andrews, Systems Designer, 404/542-4296, U. of Ga.

SOFTWARE PACKAGE SUMMARY-4

4. Sponsored Projects Information Retrieval System,, PJOG

Description

handles proposal and agency monitoring; used weekly, this system maintains proposals and awards and allows the user the flexibility of specifying the content of reports by use of parameter coding; also used for non-Federally sponsored research.

Reports Generated

various data lists and statistical analysis as specified by the user.

Other Traits

same as package 1 except data base is non-integrated with sequential access.

Resources Used

same as package 1 except no disc, no card punch, no I/O tapes or disc.

History of Package

developed as joint effort with Stanford (system was modified to suit UGA needs); also used on IBM 360/65 with OS/HASP and IBM 360/30 with DOS; also used by University of South Carolina, Columbia, S.C.; implemented 7/72; last change 7/74.

Availability

User and Control Manuals limited available; Programmer and Operator Manuals unavailable; total purchase price is \$1500; for further information call C. E. Sherer, Systems Analyst, 404/542-4296, U. of Ga.

SOFTWARE PACKAGE SUMMARY-5

5. Budget Amendment,, PBAM

Description

handles fiscal administration, planning and budgeting, historical and current expenditure analysis; will be adding terminal inquiry and updating; also used for non-Federally sponsored research.

Reports Generated

line item personnel, budget amendment request preparation, salary analysis.

Other Traits

processing mode is batch; data base uses sequential, index-sequential access; uses ANS COBOL v. 3, r. 3.2(S) and IBM standard utilities; security protection in record, data, operating system.

Resources Used

IBM 370/158, OS/VS2-ASP(S) operating system; 128K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 250 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 360/30 with DOS; implemented 7/72; last change 3/75.

Availability

Operator and Control Manuals available; for further information call Bill Jones, Systems Designer, 404/542-4296, U. of Ga.

SOFTWARE PACKAGE SUMMARY-6

6. Telephone Billing,, PETB

Description

handles utilization/allocation of telephones; used monthly for research; information is figured manually; also used for non-Federally sponsored research.

Reports Generated

transaction error report, update error report, telephone billing report, by

19. UNIVERSITY OF GEORGIA

account number, local service key system table, long distance line number table, OC & C WO prefix table, PBX system table, account billing error report, USOC codes & info., special charges transaction error report, year to date billing report by acct. no., monthly long distance summary.

Other Traits

same as package 1 except data base is non-integrated.

Resources Used

same as package 1 except uses 4 tape drives, 200 tracks on disc, no I/O tapes or disc.

History of Package

developed in-house; also used on IBM 360/30 with DOS; also used by University of Alabama, Birmingham, Ala., and RPI, Troy, N.Y. 12181; implemented 1/72; last change 3/75.

Availability

User and Control Manuals available; total purchase price \$1500; for further information call same as package 4.

SOFTWARE PACKAGE SUMMARY-7

7. Procurement,, PCPC

Description

handles procurement-purchasing of supplies and equipment; also used for non-Federally sponsored research.

Reports Generated

summary of purchases by departments, perishables by university departments, petty cash reimbursements by limitations, purchase requiring confirmation by state.

Other Traits

same as package 1 except data base is non-integrated; also uses sequential access.

Resources Used

same as package 5 except uses 100K bytes high speed storage, 2 tape drives, 100 cyl. on disc.

History of Package

developed in-house; also used on IBM 360/30 with DOS; implemented 10/71;

Availability

Operator, Control, and General Systems Manuals are available; for further information call same as package 3.

SOFTWARE PACKAGE SUMMARY-8

3. Budget Development,, PBBD

Description

handles fiscal administration, planning and budgeting, historical, current and proposed expenditures; will be adding terminal inquiry and updating; also used for non-Federally sponsored research.

Reports Generated

personal and non-personal budget worksheets, proposed budget, salary analysis.

Other Traits

same as package 5.

Resources Used

same as package 5 except uses 150 cyl. on disc.

History of Package

developed in-house; also used on IBM 360/30 with DOS; also used by West Georgia College, Carrollton, Ga.; implemented 3/69; last change 5/75.

Availability

Operator and Control Manuals available; for further information call same as package 5.

SOFTWARE PACKAGE SUMMARY-9

9. Equipment Inventory System,, PDEI

Description

handles equipment and specialized research facilities-inventory; also used for non-Federally sponsored research.

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Reports Generated

equipment inventory reports and statistics.

Other Traits

data base is non-integrated with index-sequential access; uses ANS COBOL v.3 r.3.2 (S) and Assembler(S); security protection in record, data, operating system.

Resources Used

same as package 5 except uses 2940 tracks on disc.

History of Package

developed in-house; also used on IBM 360/30 with DOS and IBM 360/65 with OS; implemented 1/71; last change 5/75.

Availability

Operator, Control, and General System Manuals available; for further information call same as package 3.

SOFTWARE PACKAGE SUMMARY-10

10. Preventive Maintenance,, PEPM

Description

handles equipment and specialized research facilities: inventory, maintenance; will be applying seasonal variances in inspection schedules; also used for non-Federally sponsored research.

Reports Generated

equipment (lubrication type) inventory reports, man hour statistics, inspection schedule.

Other Traits

same as package 1 except uses non-integrated data base.

Resources Used

same as package 5 except uses 180K bytes high speed storage, 2 tape drives, 1200 tracks on disc.

History of Package

developed in-house; implemented 7/74; last change 5/75.

Availability

Operator, Control, General Systems Manuals available; for further information call same as package 3.

Comments

Greatest problems are human. System generates buildings schedules.

20. UNIVERSITY OF HAWAII SYSTEM OFFICE

University of Hawaii System Office (FICE 007885)
(large, state, institutional system)
2444 Dole Street
Honolulu, Hawaii 96822

ADMINISTRATIVE INFORMATION

Reporting Unit

Contracts and Grants Accounting Office and Office of Research Administration, Kraus Annex U, University of Hawaii; centralized with administrative structure of institution; for further information call George Tanabe, Comptroller.

Administration Parameters for Contracts and Grants (FY74)

325 contracts and grants for r&d for the amount \$15.5M (funded) from 14 Federal agencies; 18 FTE professional staff, 9.5 FTE technicians; fields of research include all[1].

Computer Usage Profile

IBM 370/158, on-grounds and off-grounds, shared, interinstitutional.

Functions Administered

HAS AUTOMATED: fiscal administration; equipment and specialized research facilities; procurement; space; personnel management (technical and professional); cost sharing(R); program management; internal audit; all (GB) except where noted; HAS NOT AUTOMATED: library support; grant/contract information system; has automated research administration functions for non-Federally sponsored research.

Comments

The greatest problem with the present system is the lack of technical support staff. As the research grants have continued to grow over the years, manpower has remained fairly constant. Also, Federal requirements are continually changing and at times the requirements are more than the institution can handle.

SOFTWARE PACKAGE SUMMARY-1

1. Cost Sharing System, CSS,, subsystem of FISCAL

Description

handles cost sharing, records management.

Reports Generated

(1) cost shared amounts by project account; (2) control log of percentage cost shared per individual.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses ANS COBOL(S).

Resources Used

IBM 370/158, OS MVT(S) operating system; standard dbms; 2M bytes high speed storage; tapes: 5 drives, 9 tracks, 800/1600 bpi; disc: 12 3330's; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 7/74; last change 4/75.

Availability

for further information on software, call Howard Matsumara, Administrative Officer, 808/948-8310, 1620 Pope Rod., Honolulu, HI, 96822; User Manual limited available; Programmer and Operator Manuals unavailable; for further information on documents call Raleigh S. Awaya, Director, 808/948-8155, 2425 Campus Road, Honolulu, HI, 96822.

Comments

Greatest problems are human-data collection and submission by various units.

SOFTWARE PACKAGE SUMMARY-2

2. Research Training Budget Status Report, RTBSR,, subsystem of FISCAL

Description

handles fiscal accounting-fiscal reporting (the primary report provides budgetary control data); does automatic generation of UM indirect costs; will be adding automatic billing.

Reports Generated

1) research and training budget status report. 2) trial balance. 3) list of spon-

20. UNIVERSITY OF HAWAII SYSTEM OFFICE

sored projects. 4) annual reports due list. 5) quarterly report. 6) payroll encumbrance report.

Other Traits, Resources Used

same as package 1.

History of Package

developed in-house; implemented 7/70; last change 4/75.

Availability

for further information on software call Clarence Kuwahara, Administrative Officer, 808/948-8320, 1620 Pope Rd., Honolulu, HI, 96822; all manuals unavailable; for further information on documents call same as package 1.

Comments

Greatest problem is timeliness of input. The system works well as a whole. The most recent feature added is the capability of automatically adding to the RTBSR file any new accounts entered to the UH fiscal system. The provision has partially solved the "timeliness of input" problem mentioned.

21. ILLINOIS INSTITUTE OF TECHNOLOGY

Illinois Institute of Technology (FICE 001691)
(small, independent, non-profit, single institution)
Chicago, Illinois 60616

ADMINISTRATIVE INFORMATION

Reporting Unit

IIT Research Institute(IITRI), 10 W. 35th St., Chicago, Ill., 60616; decentralized from and outside the queried institution's administrative structure; for further information call Donald R. Maurykas, Mgr, Sys & Proc, 312/567-4000.

Administration Parameters for Contracts and Grants (FY74)

225 contracts and grants for r&d for the amount \$23.0M (funded) from 60 Federal agencies, 580 FTE professional staff, 300 FTE technicians; fields of research include all[1] but business and psychology.

Computer Usage Profile

Honeywell 200, on-grounds, dedicated.

Functions Administered

HAS AUTOMATED: financial accounting-project costing, payroll/personnel, general ledger, operating statements, cash receipts/accounts receivable; budgeting; IITRI facilities-space, equipment; supply management-inventories; security-document control(RF); all (GB) except where noted; WILL BE AUTOMATING: cash disbursements/accounts payable; contract administration proposal information; HAS NOT AUTOMATED: sponsor property.

Comments

[Ed. Note- The Graduate School at IIT handles contracts and grants for \$3.0M for r&d and training. Administration of this funding is manual.]

SOFTWARE PACKAGE SUMMARY-1

1. Financial Accounting

Description

handles project cost reporting, payroll/personnel, general ledger, operating statements, cash receipts/accounts receivable; project number series identifies Government contracts; transactions processed weekly; summary reports monthly; will be adding accounts payable; also used for non-Federally sponsored research.

Reports Generated

project cost sheets, payroll, journal entries, general ledger, financial statements, personnel statistical, cash receipts, accounts receivable.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses EASYCODER B or D(S); has general security protection.

Resources Used

Honeywell 200, Series 200(S) operating system; MOD I software dbms; tapes: 4 drives, 7 tracks, 556 bpi; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 7/66; last change 5/75.

21. ILLINOIS INSTITUTE OF TECHNOLOGY

Availability

software and all manuals unavailable; for further information call Donald R. Nauyokas, Manager, Systems and Procedures, 312/567-4000, IIT Research Institute.

Comments

Greatest problem with recruitment of programmers.

SOFTWARE PACKAGE SUMMARY-1a

1a. Budgets,,, subsystem of Financial Accounting

Description

handles reporting of manual forecasts and automated historical data; prepares budgets annually; also used for non-Federally sponsored research.

Reports Generated

graphs, historical data, research budgets.

Other Traits, Resources Used, Availability, Comments

same as package 1.

History of Package

developed in-house; implemented 6/72; last change 5/75.

SOFTWARE PACKAGE SUMMARY-1b

1b. Supplies Inventory,,, subsystem of Financial Accounting

Description

docs perpetual inventory of frequently used project-related supply items; generates charges to project cost system; project number identifies Government project transactions; transactions processed weekly; summary reports monthly; will be adding standardization of various inventory files; also used for non-Federally sponsored research.

Reports Generated

detail transactions and stock status.

Other Traits, Resources Used, Availability, Comments

same as package 1.

History of Package

developed in-house; implemented 3/67; last change 9/72.

SOFTWARE PACKAGE SUMMARY-2

2. Facilities

Description

handles utilization of space and equipment, allocation of expenses; monthly capital equipment reports, other reports as required; also used for non-Federally sponsored research.

Reports Generated

occupancy, scientific equipment inventory, capital equipment inventory.

Other Traits, Resources Used, Availability, Comments

same as package 1.

History of Package

developed in-house; implemented 10/72; last change 5/75.

SOFTWARE PACKAGE SUMMARY-3

3. Central Document Control

Description

handles control of accountable documents and materials; reports processed on request but at least annually.

Reports Generated

custodian, project, document inventories.

Other Traits, Resources Used, Availability, Comments

same as package 1.

History of Package

developed in-house; implemented 9/69; last change 10/70.

22. NORTHWESTERN UNIVERSITY

Northwestern University (FICE 001739)
(medium, independent, non-profit, single institution)
Evanston, Illinois 60201

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Sponsored Projects Administration, 619 Clark Street, Northwestern University; centralized with business administrative structure of institution; for further information call E. J. Dublin, Manager, SPA, 312/492-3385.

Administration Parameters for Contracts and Grants (FY74)

over 400 contracts and grants for r&d, health services, training for the amount \$24.8M (expended) from 25 Federal agencies; 3000 FTE professional staff, 200 FTE technicians; fields of research include all[1] plus humanities, law, education.

Computer Usage Profile

IBM 370/135, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: grants and contract proposal and award monitoring; active sponsored project monitoring; both (RB).

ADMINISTRATIVE INFORMATION-2

Reporting Unit

Office of Research and Sponsored Programs, 633 Clark Street, Northwestern University, decentralized from but within academic administrative structure of institution; for further information call E. J. Freise, Assistant Director, ORSP, 312/492-3003.

Administration Parameters for Contracts and Grants (FY74)

385 contracts and grants for r&d, health services, training for the amount \$27.7M (funded) from 16 Federal agencies; 3000 FTE professional staff, 200 FTE technicians; fields of research include all[1] plus humanities, law, education.

Computer Usage Profile

IBM 370/135, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: grant and contract proposal and award monitoring; active sponsored project monitoring; WILL BE AUTOMATING: sponsoring agency liaison(G); all (RB) except where noted.

Comments

Greatest problems are with 1) batch processing with monthly updating; 2) portions of system rely on information supplied by other administrative computing systems and consequently result in additional complications to software and data files.

SOFTWARE PACKAGE SUMMARY-1

1. Project Management Information System, PROMIS

Description

produces information used by research administration to monitor research activity within the University; has a generalized select and list capability; also used for non-Federally sponsored research.

Reports Generated

proposal activity and summary reports, project budget register, trial balance, quarterly expenditure report.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL-IBM 360 DOS(S), BAL-IBM 350 DOS(S); security protection in operating system.

Resources Used

IBM 370/135, DOS/VS r.29(S) operating system; tapes: 2 drives, 9 tracks, 800/1600 bpi; discs: 6000 tracks on IBM 2314; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 9/71; last change 2/75.

Availability

all manuals unavailable; for further information call T. Mantz, Systems Analyst, 312/492-3261.

Comments

For the system overall, the major problem has been that the system files are not always current.

SOFTWARE PACKAGE SUMMARY-1a

1a. Proposal System,,, subsystem of Project Management Information System (PROMIS)

Description

monitors proposals from initial submission through final award or withdrawal/rejection; has a generalized select and list capability; also used for non-Federally sponsored research.

Reports Generated

proposal activity report, proposal summary report.

Other Traits, Resources Used, History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-1b

1b. Project System,,, subsystem of Project Management Information System

Description

monitors projects for research administration; has a generalized select and list capability; also used for non-Federally sponsored research.

Reports Generated

project budget register, trial balance, quarterly expenditure report.

Other Traits

same as package 1 except data base is non-integrated.

Resources Used, History of Package, Availability

same as package 1.

Comments

The Project System reports expenditures for projects in two areas. The first covers expenditures over the entire project. The second attempts to break personnel expenditures down by groups of people, e.g., undergraduate, faculty, etc. Accounting practices within the University have made it impossible to gather accurate data for this second area.

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

University of Illinois, Urbana-Champaign (FICE 001775)
(large, state, member of institutional system)
Urbana, Illinois 61801

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Vice Chancellor for Research, University of Illinois, Urbana; centralized with administrative structure of institution; for further information call George A. Russell, Vice Chancellor for Research, 217/333-4861.

Administration Parameters for Contracts and Grants (FY74)

650 contracts and grants for r&d for the amount \$35.0M (expended) from 50 Federal agencies; 1921 FTE professional staff, 155 FTE technicians; fields of research include all [1] plus architecture, education, communications, veterinary medicine, aviation.

Computer Usage Profile

IBM 370/158, on-grounds, dedicated, interinstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property; planning and budgeting-all; equipment and specialized research facilities-inventory; procurement-all; space-inventory, utilization/allocation; library support-technical services, archives; internal audit; all (GB); WILL BE AUTOMATING: grant/contract information system-proposal and agency monitoring; HAS NOT AUTOMATED: financial accounting-property; indirect cost rate/fringe benefit rate-all; equipment and specialized research facilities-maintenance; space-maintenance; personnel management-current activities; grant/contract information system-proposal preparation, multicampus proposal/award communication network, sponsoring agency liaison; cost sharing-all; program management-man loading, forecasting, scheduling.

Comments

It is time to have new systems developed. The present ADP operation is saturated with maintaining and upgrading current programs and long range program development. In the long range time frame both Federally funded research and other activities will be beneficiaries of the long-range development.

SOFTWARE PACKAGE SUMMARY-1

1. General Accounting,, 3100, subsystem of CICS (data entry)

Description

very comprehensive system; includes General Ledger, accounts receivable, cash disbursements, cash receipts, payroll, audit trail, etc.; recent addition made to allow entry and edit of state vouchers by terminal (3277); plan to replace by an IMS based system that includes integration of entire financial data system; also used for non-Federally sponsored research.

Reports Generated

86, including various General Ledger reports on a monthly basis; various vouchers, checks, inventory cards, Foundation reports, student organization reports, etc. on a daily basis.

Other Traits

processing mode is batch, data base uses sequential, index-sequential access; uses COBOL F(S), CICS, DMS II (S); security protection in terminal.

Resources Used

IBM 370/158, OS/VS r.1-HASP(S) operating system; tapes: 16 drives, 9 tracks, 6250 bpi; discs: 3.6 billion bytes; I/O devices: card reader, printer; also uses Model 20/Unit Record.

History of Package

developed in-house; implemented 1/68; last change 6/75.

Availability

User and Programmer Manuals limited available; for further information call David E. Henard, Mgr., University Data Systems, 217/333-0391, Room 330, Illini Towers, 409 East Chalmers, Champaign, Illinois 61820.

Comments

greatest problems with poor responsiveness, lack of integration, and poor access to data.

SOFTWARE PACKAGE SUMMARY-2

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

2. Library Accounting - Obligations,, 3141, subsystem of TCAM (data collection).

Description

serves the Library Acquisition Office by processing transactions and generating reports relating to the status of orders and payments for library materials; input to the system from remote terminals (IBM 3735) from which data is extracted on a daily basis; will be adding obligation of journals; also used for non-Federally sponsored research.

Reports Generated

1) list of daily transactions (daily); 2) listing of all transactions and error report (weekly); 3) payment vouchers (weekly); 4) status of library funds (monthly); 5) listing of outstanding orders (monthly); 6) listing of vendor name and address (monthly).

Other Traits

processing mode is batch; data base is non-integrated with sequential and VSAM access; uses COBOL/VS (S); security protection in operating system.

Resources Used

same as package 1 except no Model 20/Unit Record; also uses 3735 key to disk.

History of Package

developed in-house; implemented 7/72; last change 6/75.

Availability

all manuals limited available; for further information call W.R. Starkey, Mgr., General Financial Data Systems, 217/333-2098, 54 Admin. Bldg., Urbana, Illinois 61801.

SOFTWARE PACKAGE SUMMARY-3

3. University Budget,, 3210, subsystem of CICS (for display)

Description

worksheets used to update the Budget file; printed volumes of the Budget created for all campuses and University levels; Budget file then used to up-date current payroll file for new Budget year; also used for non-Federally sponsored research.

Reports Generated

1) university and campus budgeting mats (annually); 2) budget index (annually); 3) budget analysis (on request); 4) budget divided appointments (annually); 5) salary statistics (annually); 6) condensed budget volume (annually); 7) budget work sheets (on request).

Other traits

data base has sequential, index-sequential access; uses MARK IV(S), COBOL ANS(S), CICS/DMS II(S); security protection in terminal, record.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 4/74; last change 4/75.

Availability

all manuals limited available; for further information call Dick Mann, Director, Management Information Systems Office, 217/333-0320, 251 Illini Tower, Champaign, Illinois 61820.

SOFTWARE PACKAGE SUMMARY-4

4. Payroll,, 3330, subsystem of CICS (for display).

Description

operates from one common data base; all employees, appointees, non-paid staff and fellows included; a common, consistent and rational coding system used encompassing all groups; includes the now separate academic and non-academic systems and the nonacademic benefit system; designed to handle all groups under consistent and compatible procedures; uses the same forms for all groups; an alternative abbreviated form for student employees; all state, trust, federal, monthly and biweekly payrolls combined into one; also used for non-Federally sponsored research.

Reports Generated

22, including payroll checks and earning statements, check delivery register, benefit reports, charges to accounts, etc.; all but W-2 forms are weekly.

Other Traits

processing mode is batch; data base has sequential, index-sequential access; uses COBOL F(IBM)(S), COBOL ANS IV (IBM)(S), security protection in terminal, record.

Resources Used

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

same as package 1.

History of Package

developed in-house; implemented 5/73; last change 6/75.

Availability

all manuals limited available; for further information call Chester Ciemny, Mgr., Application Program Maintenance, 312/996-8870, Rm. 370, Roosevelt Rd. Bldg., Chicago, Illinois.

Comments

greatest problems with changes in regulations that require program changes with minimum time to accomplish the task.

SOFTWARE PACKAGE SUMMARY-5

5. Department Cost Accounting System,, 3390, subsystem of TSO

Description

required by the College of Engineering to maintain and report expenditures against research grants and cost sharing accounts; accumulated monthly charges for time and labor input into engineering cost system to distribute in the clearing accounts; voucher record for each University account created and submitted to the Business Office monthly accounting system; file includes account numbers, percentages, and totals; also used for non-Federally sponsored research.

Reports Generated

Outputs include: 1) summary list of stores vouchers (monthly); 2) salary paid report (monthly); 3) pre-processed and edit report (monthly); 4) clearing account & analysis (monthly); 5) prepare store vouchers & punched output (monthly); 6) list retirement workmen's compensation records (monthly); 7) HMS listing (monthly).

Other Traits

data base has sequential access; uses COBOL ANS IV(S).

Resources Used

same as package 1.

History of Package

developed in-house; implemented 6/67; last change 2/75.

Availability

User and Programmer Manuals unavailable; Operator Manual limited available; for further information call same as package 2.

SOFTWARE PACKAGE SUMMARY-6

6. Purchasing,, 3400

Description

maintains requisition master file; as purchase orders are written, requisitions removed from master file and transferred with new purchase order information to purchase order master file; this file updated with nine separate types of activity before finally paid and placed on History File; approximately 2,000 transaction cards each day against 10,000 master records; also maintains continuous purchase orders records; also has display of this information; will be replacing with IMS system; also used for non-Federally sponsored research.

Reports Generated

23, such as requisition status report; delivery date variance report, purchase order status, invoice voucher list, etc.; made daily, semiweekly, weekly, as requested.

Other Traits

same as package 1 except no security protection.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 1/65; last change 5/75.

Availability

User and Programmer Manuals available through CAUSE [3]; Operator Manual limited available; for further information call John Jones, Systems Analyst, 217/333-0391, Rm. 330, Illini Towers, 409 East Chalmers, Champaign, Illinois, 61820.

Comments

Greatest problem is lack of integration with disbursements process in accounting.

SOFTWARE PACKAGE SUMMARY-7

7. Stores Inventory,, 3450

Description

maintains records on all stock items carried by storerooms; stock number, quantity, status, catalog number, and account number are some items carried in master record; updated daily; display of back order requisitions added to augment current stores system; plan to replace with IMS based system.

Reports Generated

transactions to each stock item; stores vouchers; weekly stock status showing inventory levels; monthly variance between the storeroom count and the machine count; annual reports of dollar value of inventory on hand and stock turnover; five daily, one weekly, three monthly and one annual report produced.

Other Traits

same as package 1 plus physical security protection.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 1/69; last change 5/75.

Availability

User and Programmer Manuals available through CAUSE [3], Operator Manual unavailable; for further information call Gary Graham, Systems Analyst, 217/333-6404, UCOADP, 54 Admin. Bldg., Urbana, Ill. 61801.

Comments

Inventory control is not integrated with the ordering process to include the automatic creation of purchase orders. A manual interface is required in most key portions of the system.

SOFTWARE PACKAGE SUMMARY-8

8. Movable Equipment Inventory,,3480

Description

maintains up-to-date records of all non-consumable items (movable equipment); provides a central data information file; provides for rapid means of inventory evaluation; also used for non-Federally sponsored research.

Reports Generated

inventory status reports.

Other Traits

same as package 5 plus has index-sequential access.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 10/74; last change 6/75.

Availability

all manuals available; for further information call Richard Starkey, Analyst, 217/333-6349, 54 Admin. Bldg., Urbana, Ill. 61801.

Comments

This new system should provide the normally expected advantages of automation: reduced clerical effort; reduced clerical error; and the ability to handle large volumes without corresponding increases in personnel to handle the paperwork. However, the greatest benefits of this system should be through the increased control of the inventory provided by the greater timeliness, accuracy, and availability of information.

SOFTWARE PACKAGE SUMMARY-9

9. General Accounts Receivable,,3510

Description, Reports Generated

maintains a customer master file and year-to-date transaction file; account title file maintained to insure unique account exists for each transaction; at month's end, statements of Wages, Salary, Expenses on Equipment, and Subsidiary Ledger Account Summary are produced with individual amounts being posted to the account title file. Each and every month, over 100,000 transaction details are processed by this system. There are over 6,000 accounts in the account title file. Aging

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

is kept for receivables and statements of overdue accounts are produced for delinquent customers at the end of every month. Statements for monthly rentals are also produced by the system; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base has sequential access; uses COBOL(S); uses physical security protection.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 1/65; last change 1/71.

Availability

User and Operator Manuals unavailable; Programmer Manual limited available; for further information call same as package 7.

SOFTWARE PACKAGE SUMMARY-10

10. Graduate Research Proposals,,3590

Description

maintains file of requests to foundations and commercial firms for funds to conduct graduate students' research projects; data collected and maintained includes research area, department, requested date, sponsor, fund source, and status; reports produced reflect requests in the period, year to date totals, and action taken; also used for non-Federally sponsored research.

Reports Generated

outputs are: 1) graduate fellowship payment procedure (fall & spring); 2) edit of monthly transactions (on request); 3) monthly activity report; 4) year to date activity report (on request); 5) annual report (annually).

Other Traits

processing mode is batch; data base has sequential access; uses COBOL IBM-F(S).

Resources Used

same as package 1.

History of Package

developed in-house; implemented 9/63; last change 1/70.

Availability

User and Programmer Manuals unavailable; Operator Manual available; for further information call same as package 2.

SOFTWARE PACKAGE SUMMARY-11

11. STRATA,,3710

Description

a well documented system of parameter driven or user oriented auditing programs; 'language' is user oriented; used by auditing department to audit selected financial files; jobs submitted directly to the Financial Production staff for processing; production staff controls JCL job cards for billing purposes; Developmental and Systems staff involved with STRATA only if program problems require technical expertise; financial system analyst coordinates use of financial files as required; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base has sequential access.

Resources Used

same as package 1.

History of Package

developed commercially by Touche-Ross, a public accounting firm in Chicago, Ill.; implemented 4/73; no changes.

Availability

User and Operator Manuals available; Programmer Manual unavailable; for further information contact Touche-Ross, Public Accounting Firm, Chicago, Ill.

SOFTWARE PACKAGE SUMMARY-12

12. Department Accounting System,,3740, subsystem of TSO

Description

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

produces financial statements reflecting expenses and allocations for projects; also used for non-Federally sponsored research.

Reports Generated

statements, audit-trails for transactions.

Other Traits

processing mode is interactive; data base has sequential, index-sequential, random access; uses ANS 4 COBOL(S); security protection in terminal, operating system.

Resources Used

same as package 1.

History of Package

developed jointly with user, ie. Chemistry Department; implemented 1974.

Availability

User and Operator Manuals limited available; Programmer Manual unavailable; for further information call P. R. Das, Mgr., Analytical Data Systems, 217/333-6288, 54 Admin. Bldg, Urbana, Ill. 61801.

Comments

greatest problems with human communications.

SOFTWARE PACKAGE SUMMARY-13

13. Teach and Non-Teach File,,6500

Description

second phase of course data collection; creates end product for the Teaching/Non-Teaching or TNT data file; is the basis or input for many important institutional reports and studies; production requires much movement of reports and data, communication, and cooperation between Office of Administrative Studies (OAS) and Campus Office of Administrative Data Processing (ADP); ability to keep processing on schedule most important; will be undertaking system revision for more efficiency; also used for non-Federally sponsored research.

Reports Generated

outputs are 1) direct instruction edit listing (semesterly); 2) account class card match-merge card (semesterly); 3) account class card matchmerge listing (semesterly).

Other Traits

processing mode is batch; data base has sequential access; uses COBOL ANS II & IV(S); security protection in data, record.

Resources Used

same as package 1.

History of Package

developed in-house; also used by University of Illinois, Chicago, Ill., implemented 9/67; last change 9/69.

Availability

all manuals available; for further information call J. D. Cottrell, Data Processing Analyst, 217/333-3842, 54 Admin. Bldg., Urbana, Ill. 61801.

SOFTWARE PACKAGE SUMMARY-14

14. State Board Cost Study,,6820

Description

generates information requested by State Board of Higher Education; an integral part of campus planning; cost of instruction data produced from system, which in turn is basis for academic budget; data produced by Teach/Non-Teach System concatenated and used as input to this system; these data edited, recorded, compressed, and assigned cost study codes according to specifications stipulated by Higher Board; also used for non-Federally sponsored research.

Reports Generated

produces yearly reports giving the cost of instruction at various levels of student class, course, type of instruction, and function; five reports produced; each may be produced by academic year, fiscal year, and by semester or term; large output of data possible; Urbana and University Campus processed separately; 14 outputs.

Other Traits

same as package 13.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 1/69; last change 8/74.

Availability

all manuals available; for further information call same as package 13.

SOFTWARE PACKAGE SUMMARY-15

15. Short Range Planning,,6850

Description

gives data for use in all phases of academic management; input in card form and collected by various university agencies as well as campuses; reports produced on request; also used for non-Federally sponsored research.

Reports Generated

comparisons of degrees at national, state, and department level, earned degrees conferred by department, enrollments by curriculum, dollars expended by department, dollars expended adjusted to 1959 purchasing power, full time equivalency by rank, summary of teaching and non-teaching duties, space assigned and generated, and departmental instruction load; generally produced by department, college, and campus meaning each program has three outputs; 19 outputs in all.

Other Traits

processing mode is batch; data base has sequential access; uses COBOL(S).

Resources Used

same as package 1.

History of Package

developed in-house; implemented 3/69; last change 2/71.

Availability

all manuals available; for further information call same as package 13.

SOFTWARE PACKAGE SUMMARY-16

16. Extension Management Info System,, EMIS-7250

Description

a Program Development--Management Information System developed for the College of Agriculture Cooperative Extension Service; consists of 28 programs which accumulate manpower projections for current and next year, actual man-hours worked by extension service personnel, and information retrievals; data for both places of work and work reported is divided by educational objectives such as improvement of farm income, soil and water conservation, marketing distribution and utilization of agricultural products; under each of these categories, reported time is further divided into audience types, i.e., farmer, homemaker, business men, agricultural associations, etc.

Reports Generated

outputs are: 1) diametric headed listing (annually); 2) parameter listing (annually); 3) plan of work edit listing (annually); 4) plan of work update listing (annually); 5) activity file edit listing (on request); 6) activity file update listing (on request); 7) interrogation parameter listing (on request); 8) retrieval report listing (on request); 9) FESSDP punch card file & listing (on request); 10) annual leave report (on request).

Other Traits

same as package 14 except no COBOL ANS II; also has index-sequential access.

Resources Used

same as package 1.

History of Package

developed commercially by System Development Corporation; also used by other states; implemented 6/68; last change 6/75.

Availability

all manuals available; for further information call H. D. Ferrell, Data Processing Analyst, 217/333-4652, 54 Admin. Bldg., U. of Ill., Urbana.

SOFTWARE PACKAGE SUMMARY-17

17. University Press Accounting,,7600

Description

23. UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

provides functions necessary for accounting of University publications; reports produced aid in processing of new orders and help maintain efficient inventory control; also prepares statements detailing payments and credits for publication materials; additional accounting reports produced which provide valuable data for cost and sales analysis; also used for non-Federally sponsored research.

Reports Generated

outputs are: 1) daily processing report; 2) royalty file print report (daily); 3) title file print report (daily); 4) payments & credits processing (daily); 5) order reversals & backorder lists (on request); 6) title file low stock reports (daily); 7) customer labels printing (daily); 8) variable address labels printing (daily); 9) title labels printing (daily); 10) sales & inventory reports (daily); 11) cost of sales reports (daily); 12) royalty summary (monthly); 13) royalty statements & vouchers (monthly); 14) end of year inventory reports (annually); 15) subscriber mailing labels (on request).

Other Traits

same as package 14 except no COBOL ANS II; also has index-sequential, random access.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 7/73; last change 7/75.

Availability

User Manual unavailable, Programmer Manual limited available, Operator Manual available; for further information call S. M. Prosise, Data Processing Analyst, 217/333-2722, 54 Admin. Bldg., U. of Ill., Urbana.

SOFTWARE PACKAGE SUMMARY-18

18. OSU Space Analysis,,5360

Description

provides a method of projecting building space requirements for future based on student and staff projections, as needed; based on student enrollment and number of staff employed; projects student contact hours, staff contact hours, and space distribution by department; data from Course Facility File, BIR Head Count File, and Student Records Enrollment Statistics File used for projections; produces 10 reports for the Office of Space Utilization; also used for non-Federally sponsored research.

Reports Generated

outputs produced annually are: 1) space utilization-requirement report; 2) staff/student and student/staff ratio; 3) NASF required/FTE student; 4) space analysis (current course request dept.); 5) space analysis (estimated facilities required); 6) space analysis (space distribution, FTE and Headcount Student distribution); 7) space analysis (office space survey); 8) space analysis (TNT reports 2 & 2E).

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL F (IBM)(S).

Resources Used

same as package 1.

History of Package

developed in-house; implemented 3/66; last change 12/71.

Availability

User Manual limited available, Programmer and Operator Manuals unavailable; for further information call Jerry Bolin, Mgr., Student Systems, 217/333-4831, 54 Admin. Bldg., Urbana, Ill. 61801.

24. INDIANA UNIVERSITY, BLOOMINGTON

Indiana University, Bloomington (FICE 001809)
(large, state, member of institutional system)
Bloomington, Indiana 47401

ADMINISTRATIVE INFORMATION

Reporting Unit

Contract Administration, Admin. Serv. Bldg. Rm. 126, Indiana University; centralized with administrative structure of institution; for further information call Leslie E. Hewitt, Assistant Contract Administrator, 812/337-2257.

Administration Parameters for Contracts and Grants (FY74)

1159 contracts and grants for r&d, health services, training for the amount \$32.0M (expended) from 27 Federal agencies; 3719 FTE professional staff, 747 FTE technicians; fields of research include all[1] plus education.

Computer Usage Profile

IBM 370/155, on-grounds, shared, intrainstitutional and interinstitutional, computer network.

Functions Administered [2]

HAS AUTOMATED: financial accounting-cash receipts, fiscal reporting; planning and budgeting-historical and current expenditure analysis (GB); indirect cost rate-expenditure analysis(GB); grant/contract information system-proposal and agency monitoring; cost sharing-records management; all (RB) except where noted.

HAS NOT AUTOMATED: financial accounting-accounts receivable, property; planning and budgeting-forecasting; indirect cost rate-forecasting techniques, preparation of proposal; grant/contract information system-award communication network, sponsoring agency liaison; cost sharing-agreements.

Comments

Greatest problems with human error and inflexibility of some purchased packages.

SOFTWARE PACKAGE SUMMARY-1

1. Proposal and Agency Monitoring/Records Management, Stanford System

Description, Reports Generated

proposals and awards statistical reports; ad hoc requests provided by report generator; frequency: monthly and on request; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base is integrated; uses ANS COBOL (S).

Resources Used

IBM 370/155, OS/MVT operating system; MARK IV dbms (used for Generalized Reports); tapes; 3 drives, 9 tracks; 1600 bpi; I/O devices: card reader, printer.

History of Package

developed out-of-house at Stanford University; also used by Stanford University; implemented 6/72; last change 8/74.

Availability

software package and all manuals available; for further information contact Stanford University.

SOFTWARE PACKAGE SUMMARY-2

2. Financial Accounting/Planning and Budgeting, Statement of Account

Description, Reports Generated

monthly statement of account, contract ledgers, cash report, indirect cost analysis; frequency: monthly and quarterly; also used for non-Federally sponsored research.

Other Traits, Resources Used

same as package 1 except no MARK IV used.

History of Package

developed in-house; implemented 6/68; last change 11/74.

Availability

all manuals unavailable; for further information on software call Robert Fenton, Mgr., Systems Assurance Group, 812/337-5606, 1000 E. 17th St., Bloomington, In. 47401.

25. INDIANA UNIVERSITY, INDIANAPOLIS

Indiana University, Indianapolis (FICE 001813)
(medium, state, member of institutional system)
1219 W. Michigan St.
Indianapolis, Indiana 46202

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Sponsored Programs- Research and Advanced Studies, IUPUI, 355 Lansing St., Indianapolis, Indiana 46202; decentralized from but within administrative structure of institution; for further information call Doris H. Merritt, M.D., Dean, Office of Sponsored Programs, IUPUI.

Administration Parameters for Contracts and Grants (FY74)

300 contracts and grants for r&d, health services, training for the amount \$25.0M (funded) from 6 Federal agencies; 530 FTE professional staff, 300 FTE technicians; fields of research include all [1] plus law, arts.

Computer Usage Profile

IBM 370/155, on grounds, shared, intrainstitutional, computer network named Indiana University System.

Functions Administered

HAS AUTOMATED: grant/contract information system-proposal preparation, proposal and agency monitoring, multi-campus proposal/award communications network, sponsoring agency liaison; cost sharing; program management-forecasting, managing; all (R); WILL BE AUTOMATING: fiscal administration-financial status, planning and budgeting, indirect cost rate; procurement of equipment; personnel management.

Comments

Contract/grant information system instituted in May, 1975. Too early to discuss results.

SOFTWARE PACKAGE SUMMARY-1

1. Grants Management System

Description

grant/contract information system; also used for non-Federally sponsored research.

Other Traits

processing mode is batch or remote batch; data base is integrated with sequential access; uses MARK IV (S).

Resources Used

IBM 370/155, OS/MVT(S) operating system; MARK IV(S) dbms; tapes: 2 drives, 9 tracks, 1600bpi; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 4/75.

Availability

software package and User Manual available; for further information call Dick Kisters, Systems Analyst, 812/337-5606, 1000 E. 17th St., Bloomington, In. 47401.

Comments

New system--insufficient experience.

26. PURDUE UNIVERSITY

Purdue University (FICE 007883)
(large, state, main campus of multicampus institution)
West Lafayette, Indiana 47907

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Contract Administration, Executive Building, West Lafayette, Indiana 47907; centralized with administrative structure of institution for further information call H. C. Buchanan, Administrative Coordinator of Systems and Cost, 317/494-8461.

26. PURDUE UNIVERSITY

Administration Parameters for Contracts and Grants (FY74)

developed in-house; also used on IBM 360/40 with OS, IBM 360/50 with OS; implemented 3/71; last change 5/75.

Availability

not available; for further information call H. C. Buchanan, Administrative Coordinator of Systems and Cost, 317/494-8461, Office of Contract Admin., Purdue U.

Functions Administered

HAS AUTOMATED: financial accounting-payroll/fringe benefits, cash receipts, cash disbursements, accounts receivable, fiscal reporting, property, time and effort reporting (GB), cost sharing, overhead charges, purchase of supplies/equipment/services; budget and expenditure control-historical and current expenditure analysis (by individual project, by budget categories within a given project), identifying questionable transactions (daily), diverting overexpenditure to a non-sponsored account; indirect cost rate-retrieval of source data for preparation of proposal (GB), i.e., space utilization, equipment, departmental administration; grant/contract information system-proposal budget preparation; all (RB) except where noted; WILL BE AUTOMATING: indirect cost rate-preparation of proposal; grant/contract information system-proposal and agency monitoring; personnel management (i.e., interests, current projects); all (RB); HAS NOT AUTOMATED: grant/contract information system-proposal technical write-up; has automated research administration functions for non-Federally sponsored research.

Comments

The majority of the fiscal administration of sponsored programs (Federal and non-Federal) is accomplished through the use of a customtailored computer system "Internal Control System for Sponsored Programs" which is a sub-system of General Accounting System. Based upon the coding of accounting transactions, i.e., transactions processed to specified funds, the computer determines the appropriate actions to be taken with the transactions, special reports to be generated, machine audits to be performed, etc. In addition, the requirements of the sponsoring agencies are contained in several of the other major computer systems, i.e., Payroll Appointment and Distribution Systems, etc., but the "Internal Control System for Sponsored Programs" monitors the transactions to these systems to insure they comply with the prescribed rules and regulations.

SOFTWARE PACKAGE SUMMARY-1

1. Internal Control System for Sponsored Programs, CAAC (Contract Administration Accounting), subsystem of General University Accounting System

Description

1) provides the necessary financial control and reporting required to meet the needs of the various sponsoring agencies and the university; 2) assists the Office of Contract Administration in the daily administration of sponsored projects by identifying questionable charges, etc.; 3) controls the expenditure of restricted budget categories, i.e., travel, equipment purchases, etc.; 4) plan to automate manual systems currently in effect to record and report statistical and textual information pertaining to proposals and awards; also used for non-Federally sponsored research.

Reports Generated

financial summary status report, transaction listing, outstanding encumbrance listing, questionable transaction listing, monthly and quarterly expenditure reports, special reports on request.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses ANS COBOL v.2(S), CICS (Customer Information Control System)(S); security protection in all [4] but field.

Resources Used

IBM 370/145, OS/VS1(M) operating system; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 50 cyl/day on 3330; I/O devices: card reader, printer, CRT, IBM 2740 typewriter terminals.

History of Package

developed in-house; also used on IBM 360/40 with OS, IBM 360/50 with OS; implemented 3/71; last change 5/75.

Availability

not available; for further information call H. C. Buchanan, Administrative Coordinator of Systems and Cost, 317/494-8461, Office of Contract Admin., Purdue U.

26. PURDUE UNIVERSITY

Comments

The major problems with our present system are: 1) the system requires frequent modifications to meet the changing requirements of the sponsoring agencies; 2) due to the large number of systems which the "Internal Control System" interfaces with, modifications can be extremely complex and time consuming; 3) time required to train new staff in the use of the system.

27. UNIVERSITY OF IOWA

University of Iowa (FICE 001892)
(medium, state, single institution)
Iowa City, Iowa 52242

ADMINISTRATIVE INFORMATION

Reporting Unit

Research Administrative Services, 202 Jessup Hall, University of Iowa; centralized with administrative structure of institution; for further information call Robert L. Ontjes, Educational Systems Coordinator, 319/353-5534.

Administration Parameters for Contracts and Grants (FY74)

700 contracts and grants for r&d, health services, training for the amount \$41.0 M (funded) from 40 Federal agencies; 2500 FTE professional staff, 500 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on-grounds, shared.

Functions Administered

HAS AUTONATED: proposal and agency monitoring (RF); WILL BE AUTOMATING: time and effort reporting (GB); has automated research administration functions for non-Federally sponsored research.

Comments

Greatest problems with software and human interfaces.

The accounting, payroll, and equipment functions are included in the overall University system; therefore, the only items specifically addressed here are in regard to the Grant/Contract information system. All our computer processing is done through programs that are written in PL/1 for the specific application and need.

28. UNIVERSITY OF KANSAS

University of Kansas (FICE 001943)
(medium, state, single institution)
Lawrence, Kansas 66045

ADMINISTRATIVE INFORMATION

Reporting Unit

Research Administration, University of Kansas; decentralized from but within administrative structure of institution; for further information call Glen A. Marotz, Assistant Dean of R.A., 913/364-3126.

Administration Parameters for Contracts and Grants (FY74)

304 contracts and grants for r&d, training for the amount \$6.9M (expended) from 8 Federal agencies; 236 FTE professional staff; fields of research include all [1] but business.

Comments

Do not, as yet, have a separately identifiable software management system for sponsored research; do provide project directors with monthly accounting information in the same format and part of regular university monthly and annual accounting; considering developing this capability; waiting on a decision for new hardware for administrators.

29. UNIVERSITY OF KENTUCKY

University of Kentucky (FICE 008011)
(large, state, multicampus institution)
Lexington, Kentucky 40506

ADMINISTRATIVE INFORMATION

Reporting Unit

Computer Center, 72 McVey Hall, plus University of Kentucky Research Foundation and Research Accounting Department of Controller Division; centralized with administrative structure of institution; for further information call Forrest Hahn, Mgr., Data Processing, 606/258-2916

Administration Parameters for Contracts and Grants (FY74)

1400 contracts and grants for r&d, health services, training for the amount \$16.5M (expended) from 20 Federal agencies; fields of research include all [1] but computer sciences.

Computer Usage Profile

IBM 370/165, on-grounds, shared, interinstitutional, computer network.

Functions Administered [2]

HAS AUTOMATED: financial accounting; indirect cost rate (partially); equipment-inventory; space-inventory; program management-cost control; all (GB); HAS NOT AUTOMATED: fiscal planning and budgeting; personnel management; library support; grant information; cost sharing; internal audit.

Comments

greatest problems with 1) lack of software for control and reporting; 2) lack of personnel.

SOFTWARE PACKAGE SUMMARY-1

1. Equipment Inventory, ,EQU

Description

maintains an up-to-date file of all equipment owned by or on loan to University; also used for non-Federally sponsored research.

Reports Generated

1) Value by building; 2) cost by account; 3) cost by sources of funds; 4) list of purchases; 5) surplus; 6) UKRF equipment; 7) property no. sequence; 8) hospital depreciation.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL F(S).

Resources Used

IBM 370/165, OS(S) operating system; 134K bytes high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 5200 tracks on 2314; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 6/70.

Availability

software package and User Manual limited available; for further information call Forrest Hahn, Mgr., Data Processing, 606/258-2916.

SOFTWARE PACKAGE SUMMARY-2

2. Indirect Cost Analysis

Description

handles indirect cost rate-expenditure and budget analysis.

Reports Generated

1) cost center by Fund and college; 2) summary by Fund; 3) cost center; 4) summary University cost center; 5) department cost center.

Other Traits, Resources Used

same as package 1 except uses 2800 tracks of 2314 disc.

History of Package

developed in-house; implemented 7/71; last change 7/74.

Availability

software package limited available; for further information call same as package 1.

30. LOUISIANA STATE UNIVERSITY

Louisiana State University (FICE 002009)
(large, state, institutional system)
Baton Rouge, Louisiana 70803

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Advanced Study and Research, 128 David Boyd Hall, Louisiana State University; decentralized from but within administrative structure of institution; for further information call Dr. Ralph W. Pike, Assistant Vice Chancellor for Research Coordination.

Administration Parameters for Contracts and Grants (FY74)

contracts and grants for r&d for the amount \$8.0M; 900 FTE professional staff, 75 FTE technicians; fields of research include all [1] plus marine science, energy.

Computer Usage Profile

IBM 360/40, on grounds, shared, interinstitutional.

Comments

We are not really automated in this area except for one report for the Vice President for Research for the LSU System and have no future plans in this area. However, we are actively working on a project to capture the research interests and scholarly activity of the faculty in a computer automated data management system.

SOFTWARE PACKAGE SUMMARY-1

1. Vice President for Research Quarterly Report,, R203-03-11 & R203-03-13, subsystem of Administrative Accounting

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses ANS COBOL(S).

Resources Used

IBM 360/40 H, DOS(S) operating system; COBOL(S) dbms; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 29M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; last change 1/75.

Availability

available through CAUSE[3].

31. TULANE UNIVERSITY

Tulane University (FICE 002029)
(small, independent, non-profit, single institution)
New Orleans, Louisiana 70113

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of University Development, Sponsored Programs, Tulane University, centralized with administrative structure of institution; for further information call Albert J. Metzger, Director of University Development or Mrs. Rita C. Finley, Admin. Assistant, Sponsored Programs.

Administration Parameters for Contracts and Grants (FY74)

232 contracts and grants for r&d, health services, training for the amount \$15.8M (funded) from 11 Federal agencies; fields of research include all [1] but computer sciences.

Comments

Tulane University uses an IBM 7044 with non-standard COBOL. Budget accounting and payroll are the only two areas of administration that are automated. Federally sponsored projects are handled as any other budget account with monthly reports sent to principal investigator. Special programs are written on request to supply data and generate reports to satisfy specific reporting requirements placed on the University by specific government agencies.

32. JOHNS HOPKINS UNIVERSITY

Johns Hopkins University (FICE 002077)
(small, independent, non-profit, single institution)
Charles and 34th Streets
Baltimore, Maryland 21218

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Administration, Homewood Divisions, Rm. 113-Garland Hall; decentralized from but within administrative structure of institution; for further information call H. R. Proctor, Sponsored Research Officer, Homewood Divisions, 301/366-3300, x 868.

Administration Parameters for Contracts and Grants (FY74)

188 contracts and grants for r&d for the amount \$8.8M (funded) from 14 Federal agencies; 80 FTE professional staff, 97 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 7094, on-grounds, shared; IBM 370/135, on grounds, shared; IBM 1401, on grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash receipts, cash disbursements, fiscal reporting, time and effort reporting; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; procurement-all; space-inventory, utilization/allocation; library support-circulation services; personnel management current activities; all (GB).

SOFTWARE PACKAGE SUMMARY-1

1. Facilities Management System (Space Utilization), FM-SYS

Description

Maintains inventories and reports space utilized in general terms of square footage, type of use, etc; uses HEGIS taxonomy where possible; also used for non-Federally sponsored research.

Reports Generated

space utilized by building, room type, department, indirect cost pool function, etc.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses ANS COBOL v.4(S); security protection in operating system.

Resources Used

IBM 370/135, OS/VS1(S) operating system; 196K bytes high speed storage; tapes: 4 drives, 7&9 tracks, 556/300-800/1600 bpi; disc: 400 M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 1401; implemented 8/72; last change 3/75.

Availability

software package available now at no cost; User and Operator Manuals limited available; Programmer Manual unavailable; input transmittal forms, taxonomies, sample reports available for cost of reproduction; for further information call Lewis E. Myrick, Director, Office of Administrative Systems, 301/366-3300, x 1051.

SOFTWARE PACKAGE SUMMARY-2

2. Payroll System,,, subsystem of Personnel/Payroll Data System

Description

updates/maintains integrated personnel/payroll data base and provides routine payroll procedures for both semi-monthly and hourly paid staff; has ability of paying staff from multiple budget sources, also guaranteeing a predefined payment, regardless if funding details have been completed; plan to have on-line CICS retrieval of information from data base and on-line update of portions with security check; also used for non-Federally sponsored research.

Reports Generated

update logs, turn-around source documents, checks, registers, time cards, labor distribution reports, grant/contract termination notices, etc.

32. JOHNS HOPKINS UNIVERSITY

Other Traits

same as package 1 except has integrated data base.

Resources Used

same as package 1.

History of Package

developed in-house; implemented 7/70; last change 2/75.

Availability

software package available now at no cost; User and Programmer Manuals unavailable; Operator Manual limited available at cost of reproduction; for further information call same as package 1.

Comments

Greatest problems with 1) keeping up with new data variables dictated anew each day; 2) keeping communication lines open for new procedures necessitated by constant evolution of system; 3) many users.

Very responsive to our needs; personnel data also integrated into basis; many different statistical studies involving personnel type information and budgetary variables generated from this data base.

SOFTWARE PACKAGE SUMMARY-3

3. Purchasing/Procurement System

Description

keeps track of various vendors, writes purchase orders, maintains open order file, feeds encumbrance info. to financial system, provides annual statistics to procurement office for contractual negotiations with vendors, etc.; writes both regular purchase orders and 'confirming' purchase orders; whole purchase order computer generated with copies to expeditors, receiving; after language conversion, package will be a generalized purchasing system; vendor file will probably go on-line; daily remote batch will be normal mode of operation; also used for non-Federally sponsored research.

Reports Generated

edit listings, purchase orders, open order inquiries, volume statistics.

Other Traits

processing mode is batch; converting from IBM 1401 Autocoder(M) to ANS COBOL v.4; security protection in operating system.

Resources Used

same as package 1.

History of Package

developed in-house; also used on IBM 1401; implemented 1/70; currently in development.

Availability

software package will be available in 1976 at no cost; manuals will be available in 1976 at no cost; for further information call same as package 1.

33. UNIVERSITY OF MARYLAND, COLLEGE PARK

University of Maryland, College Park (FICE 009553)
(large, state, member of institutional system)
College Park, Maryland 20742

ADMINISTRATIVE INFORMATION

Reporting Unit

Vice Chancellor for Academic Planning and Policy, University of Maryland; centralized with administrative structure of institution; for further information call Dr. Thomas B. Day, Vice Chancellor for Academic Planning and Policy, 301/454-4702.

Administration Parameters for Contracts and Grants (FY74)

524 contracts and grants for r&d for the amount \$17.8M (expended) from 17 Federal agencies; 600 FTE professional staff, 200 FTE technicians; fields of research include all [1] plus education.

Computer Usage Profile

UNIVAC 1108, on-grounds, shared, interinstitutional.

Functions Administered

HAS AUTOMATED: fiscal administration; space; library; grant/contract information (RB); all (GB) except where noted; WILL BE AUTOMATING: procurement (75/76); personnel (75); HAS NOT AUTOMATED: equipment; cost sharing; program management; internal audit; has automated research administration functions for non-Federally sponsored research.

Comments

greatest problems with not enough people or budget support in administration.

SOFTWARE PACKAGE SUMMARY-1

1. Budget Forecasting System,,, subsystem of Budget Control System

Description

provides management with an effective budget control and projection tool; eliminates hand-prepared reports; can be used at any time between monthly reports to obtain monthly projection and balance figures; plan to provide management, via CRT, daily projection and balance figures.

Reports Generated

monthly reports of expenditures to date and current year-end projection.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL-Level A8.(S).

Resources Used

UNIVAC 1108, Exec 8-Level 31(M) operating system; FMS8F(M) dbms; tapes: 2 drives, 9 tracks, 800 bpi; discs: 3.7M bytes; I/O devices: card reader, printer, CRT.

History of Package

developed in-house; implemented 1/75; last change 6/75.

Availability

all manuals unavailable; for further information call Stephen Ulrich, Systems Analyst, 301/454-5232, Main Admin. Bldg., R0123, U. of Md.

Comments

greatest problems with obtaining data at a specific time from University files administered by other offices.

SOFTWARE PACKAGE SUMMARY-2

2. Student Account Receivable Processor, T10600,X702T

Description

update student accounts with debits and/or credits; run daily; detailed edit checking; reports used for audit trails by batch and transaction code.

Reports Generated

batch cover sheets, transaction codes summaries per batch; bad debt accounts posted, batch details rejected error report; suspense payment file not posted, amounts posted per batch summary.

Other Traits

processing mode is batch; data base is integrated with random access; uses COBOL ANSI(S), security protection in production control.

Resources Used

33. UNIVERSITY OF MARYLAND, COLLEGE PARK

UNIVAC 1108, Exec 8(M) operating system; FMS8(M) dbms; 30K words high speed storage; I/O devices: card reader, printer, card punch; input can be from data files on mass-storage devices; some data files created from cash register cassette or key to cassette, transmitting to files on mass-storage devices.

History of Package

developed in-house; implemented 9/74; last change 6/75.

Availability

all manuals and extensive documentation unavailable; for further information call Jerry Rudden, Applications Manager, 301/454-5213, U. of Md., Administrative Computer Center, Main Admin. Bldg., Rm 0137, College Park, Md. 20742.

Comments

Greatest problems with software edit checks: 1) eliminating posting details to wrong accounts; 2) eliminating duplicate detail posting criteria for account integrity; and 3) credit accounts, no debits. Further remarks: 1) only processor is capable of updating student accounts; 2) input is made by various Depts. and/or Depts. charge systems: a) motor vehicle; b) resident life; c) food service; d) financial aid; 3) another subsystem is used to interface student accounts to University's general ledger; 4) has 31 processors within the student accounts receivable system.

SOFTWARE PACKAGE SUMMARY-3a

3a. Inventory Update,,INVEN 2

Description

enables user to change any field, add or delete records on the file; will be reformatting file and including it on integrated database; also used for non-Federally sponsored research.

Reports Generated

error report detailing edit failures.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL (A8)(M); security protection in operating system.

Resources Used

UNIVAC 1108, Exec 8(M) operating system; tapes: 2 drives, 9 tracks, 800 bpi; discs; I/O devices: card reader, printer.

History of Package

developed in-house; also used by Catholic University of America, Washington, D.C.; implemented 1973; last change 3/75.

Availability

User and Programmer Manuals available; for further information call William A. Owens, Applications Manager, 301/454-5226, Rm. 0136, Main Admin. Bldg., U. of Md.

Comments

no on-line access and updating at present.

SOFTWARE PACKAGE SUMMARY-3b

3b. Space Inventory Department Report,,DEPT.

Description, Reports Generated

produces report in department sequence listing building number and name, division, college, room number, type of space, area. Area is also summarized by space code.

Other Traits, Resources Used, History of Package, Availability

same as package 3a except uses 1 tape drive, more disc.

SOFTWARE PACKAGE SUMMARY-3c

3c. Space Inventory Building Report,,BLDG

Description, Reports Generated

produces report in building number sequence detailing rooms.

Other Traits, Resources Used, History of Package, Availability

same as package 3b.

SOFTWARE PACKAGE SUMMARY-3d

33. UNIVERSITY OF MARYLAND, COLLEGE PARK

3d. Space Inventory HEGIS Report,,HEGICD

Description, Reports Generated
produces report detailing HEGIS No., Space Code No., and HASF.
Other Traits, Resources Used, History of Package, Availability
same as package 3b.

SOFTWARE PACKAGE SUMMARY-3e

3e. Space Inventory College Report,,COLL

Description, Reports Generated
produces report detailing rooms designated by college.
Other Traits, Resources Used, History of Package, Availability
same as package 3b.

SOFTWARE PACKAGE SUMMARY-3f

3f. Space Inventory Division Report,,DIV

Description, Reports Generated
produces report detailing rooms by division.
Other Traits, Resources Used, History of Package, Availability
same as package 3b.

SOFTWARE PACKAGE SUMMARY-3g

3g. Space Inventory Space Code Report,,SPACCD

Description, Reports Generated
produces report summarizing area by space code.
Other Traits, Resources Used, History of Package, Availability
same as package 3b.

34. BOSTON UNIVERSITY

Boston University (FICE 002130)
(medium, independent, non-profit, single institution)
881 Commonwealth Ave.
Boston, Massachusetts 02215

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Comptroller, Boston University; centralized with administrative structure of institution; for further information call Henry T. Spiers, Comptroller, 617/353-2260

Administration Parameters for Contracts and Grants (FY74)

1300 contracts and grants for r&d, training for the amount \$19.6M (expended) from 48 Federal agencies; 223 FTE professional staff; fields of research include engineering, life sciences, mathematics, physical sciences, psychology, social sciences.

Computer Usage Profile

IBM 370/145, on grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: financial accounting (GB); planning and budgeting (partial) (GB); indirect cost (partial).

Comments

greatest problems with designing and developing software packages.

SOFTWARE PACKAGE SUMMARY-1

1. Public Health Services System, PHS

Description

handles fiscal administration; also used for non-Federally sponsored research.

Reports Generated

current month, year to date listings.

Other Traits

processing mode is batch; database is non-integrated with index-sequential access; uses ANS COBOL v.3(S); security protection in all [4] but terminal.

Resources Used

IBM 370/145, OS/VS 1.3(S) operating system; 256 K bytes high speed storage; tapes: 4 drives, 9 tracks, 800/1600 bpi; discs: 100M double density bytes; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 5/73; last change 6/74.

Availability

all manuals unavailable.

Comments

greatest problems with software.

35. HARVARD UNIVERSITY

Harvard University (FICE 002155)
(medium, independent, non-profit, single institution)
Cambridge, Massachusetts 02138

ADMINISTRATIVE INFORMATION

Reporting Unit

Office for Research Contracts, 1350 Mass. Ave., Cambridge, Mass. 02138; centralized with administrative structure of institution; for further information call Mr. Merton C. Barstow, Jr., Director, 617/495-5501.

Administration Parameters for Contracts and Grants (FY74)

2000 contracts and grants for r&d, health services, training for the amount \$62.9M (expended) from 15 Federal agencies; 2400 FTE professional staff, 2000 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on grounds, shared; IBM 370/168, off-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property, time and effort reporting; planning and budgeting-historical and current expenditure analysis; all (GB); WILL BE AUTOMATING: grant/contract information system-proposal and agency monitoring, multicampus proposal/award communication network; HAS NOT AUTOMATED: financial accounting-property, time and effort reporting; indirect cost rate/fringe benefit rate-expenditure and budget analysis, preparation of proposal; equipment and specialized research facilities-inventory; space-inventory; grant/contract information system-proposal preparation, sponsoring agency liaison; cost sharing-all.

Comments

Our most significant current problem is timeliness of the data. Therefore, our approach is twofold. First a greater use of encumbrance accounting. However, this has not been too successful since most people don't understand how to use it. Second, distributed data processing through the use of programmable terminals. Get the recording media closer to the point of transaction.

SOFTWARE PACKAGE SUMMARY-1

1. Expense Reporting System, ERS

Description

used to handle [2] fiscal reporting; historical and current expenditure analysis; expenditure and budget analysis; sponsoring agency liaison; program management-cost control; management of laboratories, observatories, nuclear reactors, etc.; internal audit; research funds identified by the 6000-9000 series numbers; prior to implementation all corporation appointment salaries covered by both Federal and non-Federal funds were committed, rather than encumbered; present system encumbers all Federal monies and affords the option between commitment and encumbrance for non-Federal funds; has been modified to provide data to the DHEW FAFS Financial Reporting System.

Reports Generated

monthly expense report (Dept and ORC: basic/consolidated/special request); monthly expense summary; monthly budget report; encumbrance list; input/error list; suppressed report list (Dept and ORC); control totals report.

Other Traits

processing mode is batch; data base is non-integrated with sequential (supplementary account file, transaction files), index-sequential (title file) access; uses COBOL ANSI(S); security protection in operating system.

Resources Used

IBM 370/145, OS(S) operating system; 256K VS partition; 204,800 bytes of core; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 90M bytes on 3 (2314) drives; I/O devices: card reader, printer; also has output to service bureau for microfilming.

History of Package

developed in-house; also used on IBM 360/65 with OS, IBM 370/165 with OS, IBM 370/168 with OS; implemented 7/72; last change 5/75.

Availability

all manuals limited available; for further information call David J. Farrell, Mgr., Applications Dev. Gp., 617/495-4501, Harvard University Office for Information Technology, Applications Dev. Gp., 1730 Cambridge St., 3rd Floor, Cambridge, Mass. 02138.

Comments

The system design reflects a measure of concern for certain applications which might be considered for incorporation into the system at some future time:

1. Some principal investigators have expressed a desire for a report which will show for their accounts the monthly charges to each expense class over a period of time, such as the six most recent months, along with the average monthly charge for the period and possibly an average monthly budget.
2. Departments which budget contracts and government grants on a fiscal year basis would benefit from the automatic transfer of year-end balances to current-year budgets, eliminating the necessity of filling out and submitting source documents after reviewing printed output.
3. For any department which submits complete fiscal-year budget data for all accounts within a particular type of money, the system could be readily made to generate data which could be used to enter budget amounts on the quarterly budget statements.
4. The Office for Research Contracts would benefit from a consolidated report by award number for awards which cross department lines, or which use different account numbers within the same department due to variations in the overhead rate for different tasks.
5. There are numerous possibilities for specialized information retrieval, one immediate example of which is the monthly cash expenditures report on National Science Foundation awards being prepared for the Faculty of Arts and Sciences.
6. The Stanford University Research Administration System maintains a data base and issues reports on the status of proposals for contract and grant awards up to the point of acceptance of the proposal. The Stanford System has been under study in certain departments with a view to future implementation. If this should be carried through, the possibility of a direct transfer of data on accepted awards from the Stanford system into the proposed system would be well worth exploring.

SOFTWARE PACKAGE SUMMARY-2

2. Cash Report and PHS Report for the Office of Research Grants and Contracts, CASHRPT

Description

handles fiscal reporting. Following the running of the program CASHRPT and the production of its report, SELPHS selects from the input tape all accounts under letter of credit code B, excluding income and balance forward records, and copies them to disk. DSORT then sorts the selected records by department and account before they serve as input to PSMTPLY. Card output from PSMTPLY is required by the Public Health Service, to whom this report is sent. Card punching is controlled by a console inquiry at the beginning of the program, and can be omitted if and when the PHS no longer needs the cards; also used for non-Federally sponsored research.

Reports Generated

CASHRPT: "Cash Report of 6000-9000 Series Accounts Cumulative through (date)" A detailed monthly cash report of all 6000-9000 series accounts, in sequence by letter of credit code, agency code, department code, and account code, with totals printing at each level;

PSMTPLY: Monthly summary reports, by department and account, of all accounts under letter of credit code B (excluding income and balance forward records), punching cards with the same summary information and printing final totals only--no intermediate totals: "PHS Account Expenditures (date)" and "Public Health Service Expenditures for Month ending (date)."

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses COBOL D(S), RPG(S), Assembler (S); security protection in operating system.

Resources Used

same as package 1 except uses DOS Emulator in operating system; 66K VS partition and 67534 bytes high speed storage.

History of Package

developed in-house; also used on IBM 360/30 with DOS; implemented 9/68; last change 1/69.

Availability

Programmer and Operator Manuals limited available; for further information call same as package 1.

36. MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Massachusetts Institute of Technology (FICE 002178)
(small, independent, non-profit, single institution)
77 Massachusetts Ave.
Cambridge, Mass. 02139

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Sponsored Programs, Rm. E19-702, M.I.T.; centralized with administrative structure of institution; for further information call Carol Van Aken, Research Coordinator, Rm. E-19-761, M.I.T.

Administration Parameters for Contracts and Grants (FY74)

800 contracts and grants for r&d, health services, training, construction for the amount \$155.0M (expended) from 20 Federal agencies; 2706 FTE professional staff, 311 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional; IBM 370/168, on-grounds, shared, intrainstitutional; Honeywell 6180, on grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: payroll; cash receipts; cash disbursements; accounts receivable; fiscal reporting; property; time and effort reporting; historical experience analysis; equipment inventory; space inventory; all (GB); HAS NOT AUTOMATED: forecasting, personnel/management.

Comments

During the 1973-74 fiscal year, expenditures for externally-supported, on-campus research at the Institute totaled approximately \$76,900,000. In form and mode of performance, this research activity covered a spectrum ranging from support of individual faculty and groups of faculty in departmentally-based projects to major interdepartmental and interdisciplinary centers and laboratories, each including significant institutional support. In addition to this major on-campus research effort, MIT manages a large mission-oriented activity based in the Lincoln Laboratory which involves significant industrial subcontract work. The level of research activity in this off-campus laboratory was about \$78,600,000 in charges during Fiscal 1974.

At MIT, research and instructional activities are closely interrelated as a matter of policy. Research activities are performed both within the departmental structure and also within the interdepartmental laboratories and centers in which faculty, staff, and students from many disciplines can concentrate their efforts on programs that cross traditional boundaries. New activities at MIT may be initiated as new research programs and develop into new educational programs; or, on the other hand, new educational programs may lead to new research interests. Each department head or center director manages his unit and plans for the future by considering the totality of the activity which has both research and instructional components.

MIT's chief executive officer is the President. The Chancellor acts as deputy to the President on all matters. The academic program is directed by the President, the Chancellor, the Provost, the Associate Provost, and five Deans, each responsible for the undergraduate and graduate programs in one of the five academic schools. Administrative support is provided through a number of administrative offices responsible to eight Vice Presidents of the Institute, who in turn report to the President through the Chancellor. Each new program of activity and each major change in MIT policy is considered with respect to its total effect on the Institute's programs be they teaching or research. For example, the personnel process of the Institute is concerned with policies for administering all personnel-personnel who may be devoting all of their time to research, or all of their time to teaching, or some fraction of each.

Responsibility for central research policy at MIT rests with the senior officers, including the President, the Chancellor, the Provost, the Vice President for Research, the Vice President for Financial Operations, and the Vice President for Fiscal Relations. These six officers constitute a Research Administrative Committee, which meets to review administrative and operational policies and monitors research activities, volume, and scope. Programmatic direction of each of the research activities undertaken by the Institute rests with individual professors and groups of faculty, augmented by professional research staff (some of whom may also hold academic appointments) within the structure of MIT's five schools and 24 academic departments and some 20 interdepartmental laboratories and programs.

In addition to the Research Administrative Committee and the programmatic direc-

tion of these research activities, there is an office within the fiscal administration of MIT--the Office of Sponsored Programs (OSP) whose major focus is research administration. This office constitutes the major administrative resource for support and service to sponsored research programs, for coordination of external relations and reporting requirements, as well as for advice and assistance to departmental and laboratory management of research projects. The OSP employs a staff of professionals, including patent and general attorneys and financial managers and accountants, who work with the research groups and units of the Institute. Other administrative support to departments and individuals at MIT is provided by offices such as Payroll, Physical Plant, Personnel, and Accounting. Such support is provided without regard to whether the activity in question involves externally-supported research.

SOFTWARE PACKAGE SUMMARY-1

1. Institutional Space Inventory Techniques, INSITE,, runs on IBM systems

Description

handles inventory and reporting on physical space; does automatic reporting to HEGIS; has user oriented problem oriented language; easy to understand; will be adding online input, graphic output, financial dimension; utilization by time of day; also used for non-Federally sponsored research.

Reports Generated

user defined reports to general and specific queries about space allocation, use, and planning.

Other Traits

processing mode is batch; data base has random access; uses FORTRAN(M), Assembler(S).

Resources Used

IBM 360/40 or above and 370/125 or above, IBM OS/360 and VS1 and VS2 (all S) operating systems; 256K characters high speed storage; tapes: 2 drives, 7 or 9 tracks, any density; I/O devices: card reader, printer.

History of Package

developed in-house; also used by Harvard University, Cambridge, Ma., Brown University, Providence, R.I., Syracuse University, Syracuse, N.Y., and many others; implemented 1970; last change 1975.

Availability

software package available for lease in 1975; User Manual available for purchase for \$19 in 1975; Programmer Manual unavailable; Operator Manual available at no cost; for further information call Kreon Cyros, Director, Office of Facilities Management Systems, 617/253-6168, Rm. E19-451, M.I.T.

Comments

Provides the following kind of flexibility. Developed at the Massachusetts Institute of Technology in Cambridge, Mass, INSITE II is a computerized space accounting system for storing, manipulating, and retrieving vast quantities of factual data concerning building space and physical facilities. It provides users with great flexibility in assembling inventory data and in reporting it. With INSITE II, administrators can maintain an up-to-date inventory of facilities so that they may: 1) make informed decisions about maintenance and replacement schedules; 2) make sound space allocation decisions, and 3) make long-term and immediate planning decisions more easily.

University of Massachusetts, Amherst (FICE 002221)
(medium, state, member of institutional system)
Amherst, Mass. 01002

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Budgeting and Institutional Studies, Rm. 303-Whitmore Administration Building, Amherst, Mass. 01002; decentralized from but within administrative structure of institution; for further information call Susan M. Belonis, Staff Assistant.

Administration Parameters for Contracts and Grants (FY74)

244 contracts and grants for r&d, health services, training for the amount \$10.0M (funded) from 34 Federal agencies; 46 FTE professional staff, 26 FTE technicians; fields of research include all [1] but business.

Computer Usage Profile

IBM 370/145, on grounds, shared, interinstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; procurement-purchase of supplies and equipment; personnel management-interests; library support-all; cost sharing-agreements; all (GB).

WILL BE AUTOMATING: indirect cost rate/fringe benefit rate-preparation of proposal; procurement-purchasing of services; space-all; grant/contract information system-all.

Comments

Greatest problems are human. The present system is in the initial stages of implementation; human interaction with the program scope and potential has not been fully developed.

SOFTWARE PACKAGE SUMMARY-1

1. Information Associates Inc. Accounting System, IAI Accounting

Description

general ledger/subsidiary ledgers with open commitments; will be adding accounts payable, accounts receivable; also used for non-Federally sponsored research.

Reports Generated

daily diagnostic; weekly transaction; monthly detailed listing log accounting; 2 monthly summary reports.

Other Traits

processing mode is batch; data base is non-integrated with sequential index-sequential, random access; uses ANS COBOL(S); security protection in record, terminal, data.

Resources Used

IBM 370/145, DOS r.31 (S) operating system; one IBM 3330 for high speed storage; tapes: 6 drives, 9 tracks, 400/300/1600 bpi--1 drive, 7 track, 400/300 bpi; discs: 192 M bytes on IBM 2314; I/O devices: card reader, printer, CRT.

History of Package

developed commercially by Information Associates, Inc.; also used on IBM 360/370 with DOS/OS, UNIVAC 1106/1108 with Exec 8; also used by University of Rochester, Rochester, N.Y., Brown University, Providence, R.I., University of Vermont, Burlington, Vt.; implemented 7/72; last change current.

Availability

for further information call Richard Barber, Vice President, Information Associates, Inc., 716/288-6900, 97 Humboldt St., Rochester, N.Y. 14609.

Comments

Greatest problems are human--understanding the system and how it operates and will work for the user.

38. WOODS HOLE OCEANOGRAPHIC INSTITUTION

Woods Hole Oceanographic Institution
(research organization)
Woods Hole, Massachusetts 02543

ADMINISTRATIVE INFORMATION

Reporting Unit

Woods Hole Oceanographic Institution; centralized with administrative structure of institution; for further information call George E. Conway, Controller, 617/548-1400, X362.

Administrative Parameters for Contracts and Grants (FY74)

144 contracts and grants for r&d for the amount \$15.8M (expended) from 7 Federal agencies; 247 FTE professional staff, 194 FTE technicians (not including admin., marine, or other support personnel); field of research is environmental science.

Computer Usage Profile

Xerox Data Systems/Sigma 7, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash receipts, property, time and effort reporting; planning and budgeting-historical and current expenditure analysis; indirect cost rate/fringe benefit rate-expenditure and budget analysis; personnel management-capabilities; program management-cost control; all (GB).

WILL BE AUTOMATING: space.

HAS NOT AUTOMATED: financial accounting-cash disbursements, accounts receivable, fiscal reporting; planning and budgeting-forecasting; indirect cost rate/fringe benefit rate-forecasting techniques, preparation of proposal; equipment and specialized research facilities; procurement; personnel management-current activities, interests; library support; grant/contract information system; cost sharing; program management-all but cost control; internal audit.

Comments

Greatest problems are 1) human-input errors; 2) changing requirements-necessitating frequent software modification. Varying Federal budgetary restrictions and reporting requirements dictate that software be designed to produce "compromise data," i.e., limited input capability of expenditure data has resulted in the generation of reports which do not meet all of any agency's requirements.

SOFTWARE PACKAGE SUMMARY-1a

1a. Labor Distribution, Alloc Data,, subsystem of Payroll

Description

handles time & effort recording, cost control; run biweekly; also used for non-Federally sponsored research.

Reports Generated

Journal #1-labor distribution by project, employee, dollar amount; personnel allocation-hours by project/employee; Y-T-D dollars by project, employee, summary reports.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses FORTRAN(S); security protection in operating system.

Resources Used

Xerox Data Systems/Sigma-7, CP-V(M) operating system; 384 K bytes (96K words) core memory for high speed storage; tapes: 3 drives, 9 tracks 800 bpi; RADS: 12M bytes on 2 units; discs: 96M bytes on 4 units; I/O devices: card reader, printer, teletype, 9T mag tape.

History of Package

developed in-house; implemented 1/70; last change 1/75.

Availability

all manuals limited available; for further information call Eric H. Frank, Jr., Research Associate, 617/548-1400, X 436.

Comments

greatest problems with clerical input errors.

SOFTWARE PACKAGE SUMMARY-1b

1b. Payroll/Vacation/Sick Leave,, subsystem of Payroll

38. WOODS HOLE OCEANOGRAPHIC INSTITUTION

Description

handles financial accounting-payroll; biweekly P/R; also used for non-Federally sponsored research.

Reports Generated

usual P/R reports-register, checks, W-2's, 941's and miscellaneous reports such as BC/BS insurance, etc.; vacation balance-accounting, employees; sick leave-accounting.

Other Traits

same as package 1a except data base is non-integrated with random access.

Resources Used, Availability, Comments

same as package 1a.

History of Package

developed in-house; implemented 1/70; last change 5/75.

SOFTWARE PACKAGE SUMMARY-2

2. Cash Receipts, Cash Rec

Description

handles financial accounting-cash receipts; also used for non-Federally sponsored research.

Reports Generated

weekly-alphabetical listing of week's receipts by source; monthly-listing of account distribution by source; monthly-updated Y-T-D listing by source; on demand-sorting by source, dollar amount, depository, distribution, date, chron sequence.

Other Traits

same as package 1a except data base is non-integrated.

Resources Used, Availability

same as package 1a.

History of Package

developed in-house; implemented 1/75.

SOFTWARE PACKAGE SUMMARY-3

3. Personnel, Per List

Description

handles personnel management-current activities; used biweekly or on demand; data is part of employee master P/R records; also used for non-Federally sponsored research.

Reports Generated

biweekly or on demand-alpha by last name; department/alpha; job description and name.

Other Traits, Resources Used, Availability

same as package 1a.

History of Package

developed in-house; implemented 1/74.

SOFTWARE PACKAGE SUMMARY-4

4. Property

Description

handles financial accounting-property; run on demand; also used for non-Federally sponsored research.

Reports Generated

change/add/delete; on demand-by contract, location, alpha item.

Other Traits, Resources Used, Availability

same as package 1a.

History of Package

developed in-house.

SOFTWARE PACKAGE SUMMARY-5

38. WOODS HOLE OCEANOGRAPHIC INSTITUTION

5. Project Accounting

Description

handles financial accounting-projects; run monthly; also used for non-Federally sponsored research.

Reports Generated

change/add/delete master project file; daily update of mag tape with totals; monthly statements by control, project with totals, also statements by department with totals, summary statements.

Other Traits, Resources Used, Availability

same as package 1a.

History of Package

same as package 1b.

39. MICHIGAN STATE UNIVERSITY

Michigan State University (FICE 002290)

(large, state, single institution)

East Lansing, Michigan 48824

ADMINISTRATIVE INFORMATION

Reporting Unit

Research and Contract Administration, 302 Adm. Bldg., MSU, East Lansing, Michigan 48824; centralized with Vice President for Business and Finance; for further information call Howard G. Grider, Director, 517/355-5040.

Administration Parameters for Contracts and Grants (FY74)

1700 contracts and grants for r&d, health services, training for the amount \$30.0M (expended) from 28 Federal agencies; 6 FTE professional staff, 12 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM5/370/155, on grounds, dedicated, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-accounting by line item of budget (RF), payroll, cash receipts, cash disbursements, property, time and effort reporting (RF); equipment-inventory; space-inventory, maintenance; library-circulation services; all (GB) except where noted.

HAS NOT AUTOMATED: financial accounting-accounts receivable, fiscal reporting; planning and budgeting; equipment-all but inventory; procurement-all; personnel management-all; library-technical services; grant/contract information system-all; cost sharing-all; program management-all; internal audit.

Comments

has no particular problems.

SOFTWARE PACKAGE SUMMARY-1

1. Time and Effort Reporting,,A0120 and A0121, subsystem of Payroll

Description

creates and prints sponsored research distribution work tape and reports; reads both deduction and pay cards and processes either biweekly, monthly, retroactive increases, or longevity payrolls depending on type of input (student, labor, salary, etc.); generates work files which in turn are used for distributing employee dollars by account number, for producing reports, punchouts and updating cumulative files; also used for non-Federally sponsored research.

Reports Generated

list of deductions not taken, payroll checks, direct bank deposits, employee earnings report, payroll deduction reconciliation reports, account distribution and spread book reports, employee benefit report, bonds participant and purchase

39. MICHIGAN STATE UNIVERSITY

reports, employee W-2's.
Other Traits
processing mode is batch; data base is non-integrated with sequential access; uses PL1(S); security protection in record, terminal, field, data, operating system.
Resources Used
IBM 370/155, OS/MVT(S) operating system; tapes: 8 drives, 9 tracks, 1600 bpi; discs: 1.4 billion bytes on 14 spindles; I/O devices: card reader, printer, tape/disc.
History of Package
developed in-house.
Availability
all manuals limited available; for further information call Paul L. Klaver, Assistant Director, 517/353-4420, 30 Hannah Admin. Bldg., Data Processing, MSU.

SOFTWARE PACKAGE SUMMARY-2a

2a. Budget Accounting,,A17CHK/A17LEDG/A17PHS2/A17PS3/A17PHS4/A17PHS5/A17PHS6, subsystem of Budget Accounting

Description
reads batch transaction cards and updates the accounting ledger, object class and cumulative transaction files; provides a daily account of the appropriations, expenditures and balances incurred for each account number; produces a large variety of monthly reports; also used for non-Federally sponsored research.
Reports Generated
summarized control balance, fund ledger statements, purchase order and encumbrance, monthly summary of accounts, generated transactions, distribution of expenditures.
Other Traits
processing mode is batch; data base is partially integrated with sequential access; uses PL1(S); security protection in record, terminal.
Resources Used
same as package 1 except no tape for I/O; also uses CRT and card punch.
History of Package
developed in-house; implemented 10/68; last change 6/65.
Availability
same as package 1.

SOFTWARE PACKAGE SUMMARY-2b

2b. Year End Accounting Reports,,A18AUDIT, Subsystem of Budget Accounting

Description
matches both beginning and ending fund ledger and object class recap files to obtain expenditures for the fiscal year; input finder deck, supplied by user, will dictate control breaks; also used for non-Federally sponsored research.
Reports Generated
foundations, state, medical programs, travel expenditures.
Other Traits
same as package 1 except security protection in record, data, operating system.
Resources Used, Availability
same as package 1.
History of Package
developed in-house; implemented 5/69; last change 7/74.

SOFTWARE PACKAGE SUMMARY-2c

2c. Federal Government Accounts, A19PHS1/A19PHS2/A19PHS3, subsystem of Budget Accounting

Description
matches transactions against the fund ledger to obtain expenditures for period allowed; generates work file for reports; filters research information by account number; also used for non-Federally sponsored research.
Reports Generated
reversal of master ledger, NIH-NSF phases 1,2, and 3; NIH transaction report, and

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closed account edit.

Other Traits

same as package 2a; also has security protection in data and operating system.

Resources Used, Availability

same as package 1 except no tapes for I/O.

History of Package

developed in-house; implemented 6/59; last change 7/74.

SOFTWARE PACKAGE SUMMARY-3a

3a. Research Grants and Contracts,,A11, subsystem of Research Grants and Contracts

Description

provides maintenance to the research ledger through the use of an accounting ledger tape and input cards; cumulates monthly expenditures and encumbrance totals by class to update the research accounts; ledger statements and overhead transactions produced to keep the accounts within budgeted dollars by class and grant; research information filtered by account number and separates files; frequency-monthly; also used for non-Federally sponsored research.

Reports Generated

research overhead report, fund ledger statements.

Other Traits

same as package 2a except security protection in record only.

Resources Used, Availability

same as package 1 except no disc for I/O; also uses card punch.

History of Package

developed in-house; implemented 10/71; last change 6/75.

SOFTWARE PACKAGE SUMMARY-3b

3b. Fiscal Year Expenditures on Research Grants and Contracts,,B1490 through B1497, subsystem of Research Grants and Contracts

Description

to report yearly expenditures for research grants and contracts according to the Federal reporting standards; research information selected by account number, department, source and description; also used for non-Federally sponsored research.

Reports Generated

alpha description report, building summary list, building list, contracts equipment report.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses DYL260(S); security protection in data and operating system.

Resources Used

same as package 1 except no tape/disc for I/O.

History of Package

developed in-house; implemented 8/73.

Availability

User Manual limited available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Inventory Plant and Equipment System,,A26PHS1/A26PHS2/A26PHS3

Description

produces an annual report of all university equipment and a summary report of dollars expended by class; has programmed maintenance support of the data base, ability to generate management reports through report generated software (DYL260); also used for non-Federally sponsored research.

Reports Generated

equipment inventory report and equipment summary by class.

Other Traits

processing mode is batch; data base is non-integrated with index-sequential access; uses PL1 OS 21.8 (level F) (S); security protection in data, operating system.

Resources Used

39. MICHIGAN STATE UNIVERSITY

same as package 1 except I/O devices are card reader, printer, card punch.
History of Package
developed in-house; implemented 6/70; last change 6/75.
Availability
software package available; Programmer Manual available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-5

5. Personnel Office,,B15 SPEC

Description
updates the personnel/faculty master through the use of maintenance transactions; monitors the master file by providing reports on questionable employee data; also returns a large variety of employee reports and statistical information; research information selected by identification number and account number; frequency-weekly; planning new personnel-based systems; also used for non-Federally sponsored research.
Reports Generated
employee tags, longevity reports, retirement reports, classification reports, and faculty format.
Other Traits
same as package 2a.
Resources Used, Availability
same as package 1 plus uses card punch and CRT for I/O.
History of Package
developed in-house; implemented 6/70; last change 6/75.

SOFTWARE PACKAGE SUMMARY-6

6. Space Utilization,,F20LIST.

Description
builds and maintains space utilization master file; prints various reports; plan to bring it up to Federal reporting standards.
Reports Generated
error and maintenance reports, inventory by department, HEGIS reports, and error list.
Other Traits
same as package 3b plus uses PL 1(S).
Resources Used
same as package 4.
History of Package
developed in-house; implemented 9/71; last change 6/71.
Availability
User Manual limited available; Programmer and Operator Manuals available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-7

7. Library Circulation,,L01,LIBCON

Description
maintains file of books in circulation; calculates and produces time record, letters, and reports; collects library payroll time records; also used for non-Federally sponsored research.
Reports Generated
error reports, circulation lists, reserve lists, letters, usage reports.
Other Traits
processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses PL1(S).
Resources Used, Availability
same as package 4.
History of Package
developed in-house; implemented 3/71; last change 5/75.

University of Michigan (FICE 002325)
(large, state, multicampus institution)
Ann Arbor, Michigan 48105

ADMINISTRATIVE INFORMATION

Reporting Unit

Division of Research Development and Administration, University of Michigan; centralized with administrative structure of institution; for further information call Dennis J. Cebulski, Assistant to the Director, 313/764-7232.

Administration Parameters for Contracts and Grants (FY74)

2300 contracts and grants for r&d for the amount \$61.1M (expended) from 47 Federal agencies; 497 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/155, on-grounds (Data System Center), dedicated (to University Administration), shared, computer network (NCR 101-Flint-Library); IBM 370/168, on-grounds (Computing Center), dedicated (to University Academics and Research), shared, computer network named MERIT; IBM 360/40, on-grounds (Institute of Social Research), dedicated (to ISR), shared; IBM 370/145, on-grounds (Hospital), dedicated (to Hospital), shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-cash disbursements, accounts receivable (GF), fiscal reporting (GF), property, time and effort reporting; indirect cost rate/fringe benefit rate-expenditure and budget analysis (RF); equipment and specialized research facilities-inventory; space-all; personnel management-current activities; library support-all; program management-University/College Presses-Publication; internal audit; all (GB) except where noted.

CURRENTLY AUTOMATING: planning and budgeting-all; procurement-all; grant/contract information system (RF)-all; all (GB) except where noted.

Comments

greatest problems with complexity of maintenance, obsolescent and poor coordination with administrative data and software.

SOFTWARE PACKAGE SUMMARY-1

1. IMS (IBM)

Description, Reports Generated

handles data base, utility reports; also used for non-Fed. sponsored research.

Other Traits

processing mode is interactive and batch; data base is integrated with sequential, index-sequential, and random access; uses PL1-optimised (S), ANS COBOL(S); Assembler (S); security protection in transmission, terminal, data, operating system.

Resources Used

IBM 370/155, MFT/OS(S) operating system; HASP(S) dbms; 3 ITEL units for high speed storage; tapes: 8 drives, 9 tracks, dual density; discs: 16 3330 packs; uses computer output microfilm (COM).

History of Package

developed commercially by IBM; translated to DL1(S); also used by Ohio State, Columbus, Ohio, Michigan State, East Lansing, Michigan.

Availability

for further information contact IBM.

SOFTWARE PACKAGE SUMMARY-2

2. Mark IV

Description

report generator; an IMS data base extension; also used for non-Fed. spons. res.

Other Traits

processing mode is batch; data base is non-integrated with sequential index-sequential access; uses own language-MU4(S); security protection in op. sys.

Resources Used

same as package 1.

History of Package

developed commercially by Informatics Inc.; used on many other computers.

Wayne State University (FICE 002329)
(large, state, single institution)
Detroit, Michigan 48202

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research and Sponsored Programs Services, 1064 David Mackenzie Hall, 5050 Cass Avenue, Detroit, Michigan, 48202; centralized with administrative structure of institution; for further information call Thomas J. Curtin, Director, 313/577-2291.

Administration Parameters for Contracts and Grants (FY74)

242 contracts and grants for r&d for the amount \$4.9M (expended) from 10 Federal agencies; 200 FTE professional staff, 400 FTE technicians; fields of research include engineering, life sciences, mathematics, physical sciences, psychology, social sciences.

Computer Usage Profile

IBM 360/65, on-grounds; IBM 360/67, computer network named MERIT.

Functions Administered

HAS AUTOMATED: grant/contract information system (reflects the University accounting system of accounting for grant/contract balances); financial accounting-payroll, cash receipts, disbursements, accounts receivable; all (GB); WILL BE AUTOMATING: letter of credit (GB) (using financial information); HAS NOT AUTOMATED: fiscal reporting, property, cost sharing.

Comments

The lack of programming knowledge which could be related to new programs and new computer usage is the most serious problem. The Computing Center's capabilities lay in providing service to prepared programs. The services of the Computing Center to develop ideas into computing programs is limited.

The Accounting System does not account for all expenditures and encumbrances on a rapid basis. Payroll is not encumbered and most balances are then overstated.

SOFTWARE PACKAGE SUMMARY-1

1. MARK IV,,, subsystem of OS

Description

handles all of items 1-10 from Guide [2]; allows users to prepare their own Administrative reports; allows programmers to prepare reports more easily; also does file building and updating, which we don't use; also used for non-Federally sponsored research.

Reports Generated

source language for programs for reports, user's report(s).

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses Assembler H(S); security protection in operating system.

Resources Used

IBM 360/65, OS(S) operating system; 110K-180K bytes high speed storage; tapes: 0-2 drives, 9 tracks, 1600 bpi; discs: 2 2314 packs; I/O devices: card reader, printer.

History of Package:

developed commercially by Informatics; Inc., used by approximately 500 customers of Informatics, Inc.; implemented 7/73; last change 5/75.

Availability

for further information on software package call James F. Simmons, Systems Analyst, 313/577-1951, Computing Center, 5950 Cass, 3rd Fl., ASB2, Wayne State University; for further information on documentation call Margaret Ibarra, Documentation Librarian, 313/577-4802, Computing Center.

Comments

It is sometimes difficult for a non-programmer to use because it resembles ordinary programming. It is not as efficient in execution as we would like. The MARK IV package is being increasingly used by the Business and Finance Division to create new programs involving payroll, position analysis and special reports of accounting information. Research administrators are not using this system. This is the result of the lack of information within the system. The accounting information within the accounting system fails to include many docu-

ments which are not recorded until payment is made. Payroll is not encumbered and accounting balances invariably overstate balances. Because of the lack of data base information, the computer cannot be fully utilized for MARK IV programs. The Computing Center has had seminars and meetings to inform administrators of the possibilities of MARK IV. The lack of programming experience by administrators and the time to develop programs greatly reduces the utilization of MARK IV.

SOFTWARE PACKAGE SUMMARY-2

2. MARK IV JOB GENERATOR, M4JOBGEN, Program # A3440P, subsystem of OS

Description

handles all of items 1-10 from Guide [2]; assists users of MARK IV, builds JCL, insures data security; also used for non-Federally sponsored research.

Reports Generated

log of jobs run.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses 99% COBOL ANSI 4 v.1.2(S), 1% Assembler H(S); security protection in record, field, data, operating system.

Resources Used

IBM 360/65, OS(S) operating system; 72K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 4 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 8/74; last change 5/75.

Availability

software package limited available; Programmer Manual unavailable; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Administrative Teleprocessing Systems, ADMINTP, Project #L8202999, subsystem of Appropriation Accounting-General

Description

handles financial accounting, historical and current expenditure analysis, expenditure and budget analysis; used for other administration functions; research administration info is extracted by means of the account number; also used for non-Federally sponsored research.

Reports Generated

ABAL-displays current status of account balances-college, debt, and major object expenditure levels; BUDL&BUDM-displays the budget ledger for a particular month, or for the fiscal year thru a particular month, showing each detail transaction at minor object expenditures for each dept.; TRAC-displays a particular transaction, or group of transactions, using a document reference number and account number combination as the key; ACCT-allows the addition of, and changes in description to, account masters on the file; EXCP-allows the resubmission and correction/resubmission of exceptions resulting from daily maintenance.

Other Traits

processing mode is interactive; data base is partially integrated with index-sequential access; uses COBOL-ANSI 4 v1.1(S); security protection in record, field, data, operating system.

Resources Used

IBM 360/65, OS(S) operating system; 13K bytes high speed storage; discs: 4 tracks; I/O devices: CRT and UCC terminal.

History of Package

developed in-house; implemented 1968/69; last change 1974.

Availability

software package limited available; for further information call Anthony Trojan, Systems Analyst, 313/577-2083, Computing Center; User and Operator Manuals limited available, Programmer Manual unavailable; for further information call Margaret Ibarra (see package 1).

Comments

System load can affect response time.

This program is available to our office through the Terminal system. Monthly reports on Criminal Justice programs funded by LEAA require the use of terminal information to meet reporting deadlines. It is also used in meetings with princi-

pal investigators to discuss the current status of their accounts. Other than our use and that of the Accounting Office, most units are not using this program. Both Accounting and the Computing Center have advertised its availability but its use is still minimal.

The problem is the lack of a complete data base which will give a firm account balance. As stated in the MARK IV program, Accounting Balances are invariably overstated because of the lack of encumbrances in the system. This problem reduces the administrators ability to use the computer reports to control grant expenditures. Manual records are required.

SOFTWARE PACKAGE SUMMARY-4

4. Accounting Maintenance and Reporting System,,Project #s L8202640,L8202641,L8202643, subsystem of Appropriation Accounting-annual, daily, & monthly

Description

handles financial accounting, historical and current expenditure analysis, expenditure and budget analysis; used for other administrative functions; research administrative info is separated by account no.; also used for non-Federally sponsored research.

Reports Generated

daily reports of transactions for expenditures, allocations, revenue, and subsidiary ledgers; daily exception reports; monthly budget ledger reports, management reports, and a variety of special reports (outstanding orders, expenditure analysis reports, revenue reports, subsidiary ledger reports, chart of accounts and account balance reports); year end reports for the annual financial statement.

Other Traits

same as package 2 except uses COBOL ANSI 4 v.1.1(S) and Assembler (S).

Resources Used

IBM 360/65, OS(S) operating system; 170K bytes high speed storage; tapes: 5 drives, 9 tracks, 1600 bpi; discs: 6 2314 packs; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 1963; last change 5/75.

Availability

software package limited available; for further information call same as package 3; User and Programmer Manuals unavailable, Operator Manual limited available; for further information call same as package 3.

Comments

greatest problems with not enough disk space; sometimes too slow. From this system, a monthly accounting report is provided on all University accounts. This includes a summary of expenditures and balances as well as transaction detail. Summaries by source of funds and account function are also provided on request. Principal investigators receive individual copies of the Accounting Report for each of their grants. Terminal access is available for data generated by this program to our office.

SOFTWARE PACKAGE SUMMARY-5a

5a. Autotab,AUTOTAB,,subsystem of Michigan Terminal System (MTS)

Description

handles planning and budgeting-historical and current expenditure analysis, forecasting; indirect cost rate/fringe benefit rate-expenditure and budget analysis, forecasting techniques; program management-cost control, man loading; used for budgeting for general and auxillary fund personnel status reports; also used for non-Federally sponsored research.

Reports Generated

budgets, budget analysis, balance sheet projections, cash flow projections, manpower allocations, cash analysis.

Other Traits

processing mode is interactive; data base is partially integrated, non-integrated with sequential, random access; uses Assembler G(M-MTS); security protection in data, operating system.

Resources Used

IBM 360/67, MTS(M) operating system; 128K bytes high speed storage; discs: 100 pages (4000 char./pg.); I/O devices: terminal.

History of Package

developed commercially by CAPEX Corp.; also used on other computers; used by approx. 500 Informatics, Inc. customers; implemented 1971; last change 5/75.

Availability

available through CAPEX Corp.; for further information on software call Margaret B. Cauty, Systems Manager, 313/577-2084, Computing Center; for further information on documents call same as package 1.

Comments

Running on MTS, but was designed to run on OS. Updates and new releases must be worked with a great deal. Has no way of reading University data base directly. This system represents a cooperative effort between Michigan State University, University of Michigan and Wayne State University. It was initially funded by the National Science Foundation and the State of Michigan. It is now funded by contributions from each of the participating institutions. While this system is available to all University personnel, it is not being used for grant accounting information. Data reflecting users by account number is not maintained so that the actual number of users of this program on grants is unknown.

SOFTWARE PACKAGE SUMMARY-5b

5b. Project Planning System, PPS,*PPS, subsystem of Michigan Terminal System (MTS)

Description

aids project directors in design of work schedules during the planning phases of large projects or to document existing schedules; has three parts: critical path, bar charting, manpower optimization; also used for non-Federally sponsored research.

Reports Generated

tabular reports, optimized schedules, unoptimized schedules, bar charts, or combinations of these.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses FORTRAN II(M); security protection in operating system.

Resources Used

IBM 360/67, MTS (custom) operating system; I/O devices: card reader, printer, CRT, teletype.

History of Package

developed out-of-house at IBM, University of British Columbia; implemented 1/73; last change 1/73.

Availability

for further information on software package call Russ Pratt, Consultant 313/577-4841, Computer Center; User Manual available for purchase at \$.65 on 7/73; for further information on documents call Jean Roberts, Documentation Librarian, 313/577-2091, Computer Center.

SOFTWARE PACKAGE SUMMARY-5c

5c. Mixed Integer Programming, 23450,, subsystem of Michigan Terminal System (MTS)

Description

analyzes potentialities of alternate business activities to choose those that permit best use of resources using linear programming techniques; analyzes capital, raw materials, manpower, plant and storage facilities and translates findings into minimum costs and maximum profits; also used for non-Federally sponsored research.

Other Traits, Resources Used

same as package 5b except uses FORTRAN IV(S).

History of Package

developed out-of-house at IBM; implemented 1/70; last change 1/71.

Availability

User Manual available at no cost on 11/70; for further information on document call same as package 5b.

SOFTWARE PACKAGE SUMMARY-5d

41. WAYNE STATE UNIVERSITY

5d. MERIT Computer Network, MERIT,, subsystem of Michigan Terminal System (MTS)

Description

connects the computing centers of Wayne State University, University of Michigan and Michigan State University; connects CDC 6500, IBM 360/67, and IBM 370/168; provides means to access computing resources of other network nodes; also used for non-Federally sponsored research.

Other Traits

processing mode is interactive and batch; uses Assemblers of respective manufacturers (S and M); security protection in operating system.

Resources Used

IBM 360/67 and PDP11, MTS(custom) operating system; I/O devices: card reader, printer, CRT, teletype, PDP-11.

History of Package

developed as joint effort with University of Michigan and Michigan State University; also used on CDC 6500 with SCOPE, IBM 370/168 with MTS; also used by U. of Michigan, Ann Arbor, Mich., Michigan State U., East Lansing, Mich.; implemented 1972; last change 1975.

Availability

for further information on software call Seymour J. Wolfson, MERIT Assoc. Dir., 313/577-2477, Computer Science Section, Math Dept., 6th Floor MacKenzie, Wayne State U.; User Manual available at no cost on 7/74; for further information on document call same as package 5b.

Comments

Human problems of getting people to learn about and use another university's computing resources have been immense.

SOFTWARE PACKAGE SUMMARY-5e

5e. Plot Description System,, *PLOTSYS, subsystem of Michigan Terminal System (MTS)

Description

produces computer-generated drawings; set of subroutines which generates output for the CALCOMP plotter; useful for producing graphical presentations; also used for non-Federally sponsored research.

Reports Generated

any that may be drawn.

Other Traits

processing mode is batch; data base has sequential access; uses IBM 360 Assembler (M); security protection in operating system.

Resources Used

IBM 360/67, MTS(custom) operating system; tapes: 1 drive, 9 tracks, 800/1600 bpi; I/O devices: card reader, CRT, teletype, also CALCOMP 563 plotter.

History of Package

developed as joint effort with U. of Michigan Computing Center; also used on IBM 370/168 with MTS; used by all MTS installations; implemented 1/71.

Availability

for further information on software call Richard Wiersma, Senior Consultant, 313/577-1957, Computer Center; User Manual plus one update available for purchase for \$2.15 on 1/71; for further information on documents call same as package 5b.

SOFTWARE PACKAGE SUMMARY-5f

5f. Statistical Package for the Social Sciences, *SPSS,, subsystem of Michigan Terminal System (MTS)

Description

integrated system of computer programs for analysis of a data matrix in a simple and convenient manner; has descriptive statistics frequency distributions, cross-tabulations, correlations, multiple regression; contains some data management facilities; interactive SPSS is being developed by SPSS, Inc.-part of National Opinion Research Center, University of Chicago; also used for non-Federally sponsored research.

Reports Generated

for administrative purposes, one and two-way frequency distributions and associated statistics. Package contains reporting for many statistical analysis programs.

41. WAYNE STATE UNIVERSITY

Other Traits

same as package 5b execept uses FORTRAN(S) and 360 Assembler (M).

Resources Used

IBM 360/57, MTS(custom) operating system; 250K bytes high speed storage; I/O devices: eard reader, printer, CRT, teletype.

History of Package

developed out-of-house at Stanford Univ., NORC at University of Chicago, SPSS, Inc.; versions exist for all generally available medium to large computer systems; see National Opinion Research Center, U. of Chicago, for distribution list; implemented 1963; last change 1975.

Availability

for further information on software call Barbara B. Wolfe, Systems Manager, 313/577-4777, Computer Center; 'SPSS'-McGraw Hill, 1975 available for purchase at \$10.95 in 1975; 'Uses of MTS for the SPSS User' available for purchase at \$1.25 in 1975; for further information on documents call same as package 5b.

Comments

greatest problem with updating the data base; documentation is superb and can easily be used directly by the administrative customer.

SOFTWARE PACKAGE SUMMARY-5g

5g. Format,,*FORMAT,subsystem of Michigan Terminal System (MTS)

Description

a text-processing program used to produce papers, reports, manuals, and other finished and reproducible upper and lower case documents; will be getting output acceptable as input to typesetting equipment; also used for non-Federally sponsored research.

Reports Generated

text in any format.

Other Traits

processing mode is interactive or batch; data base has sequential access; uses IBM 360 Assembler (M); security protection in operating system.

Resources Used

same as package 5b plus printer needs upper and lower case alphabetic characters.

History of Package

developed out-of-house at Bell Labs, IBM, U. of Michigan, U. of British Columbia, U. of Alberta; translated to FORTRAN IV(S); also used on IBM 360 with OS, IBM 370/168 with MTS; also used by many others; implemented 1969; last change 1975.

Availability

for further information on software call Melvin Burstein, Consultant, 313/577-2079, Wayne State U.; User Manual in MTS Vol. 5-System Services available for purchase at \$4.50 on 3/74; Beginner's Guide to *FORMAT available at no cost on 3/75; Reference Manual for FORMAT available for purchase at \$2.00 on 5/75; for further information on documents call same as package 5b.

Comments

Some problems exist in maintaining typing speed because of some control codes which must be entered in the text. Simplification of the key entering has taken place by developing standard functions and formats.

SOFTWARE PACKAGE SUMMARY-5h

5h. Linear Programming,,25230,subsystem of Michigan Terminal System (MTS)

Description

analyze potentialities of alternate business activities to choose those that permit best use of resources by linear programming techniques; analyzes capital, raw materials, manpower, plant and storage facilities and translates findings into minimum costs and maximum profits; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses FORTRAN IV(S); security protection in operating system.

Resources Used

same as package 5b.

History of Package

developed out-of-house at IBM; implemented 1/71.

Availability

User Manual available at no cost on 7/71; for further information on document call same as package 5b.

SOFTWARE PACKAGE SUMMARY-5i

5i. Time Series Processor,TSP,*TSP,subsystem of Michigan Terminal System (MTS)

Description

computer language for statistical analysis of time series by ordinary least square and two-stage least squares; useful in econometric data analysis; also used for non-Federally sponsored research.

Other Traits

same as package 5e except uses FORTRAN IV(S).

Resources Used

same as package 5b.

History of Package

developed out-of-house at Princeton U., U. of British Columbia; also used on CDC 6400; IBM 360 with OS; also used by all MTS installations, Princeton U., Harvard U., U. of California; implemented 1972; last change 1975.

Availability

User Manual available for purchase at \$3.25 on 2/75; for further information call same as package 5b.

SOFTWARE PACKAGE SUMMARY-5j

5j. General Purpose Simulation System,GPSS,*GPSS, subsystem of Michigan Terminal System

Description

a general purpose tool for modeling and examining the behavior of systems in the management sciences and engineering; particularly focuses on discrete event simulations; activities with random variations may be introduced to explore alternatives and identify capacity limitations; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base has sequential access; uses IBM Assembler (M); security protection in operating system.

Resources Used

same as package 5b.

History of Package

developed out-of-house at IBM, U. of Michigan Computing Center; also used on IBM 360 with OS; widely used; implemented 1966; last change 1975.

Availability

User and Operator Manuals available; for further information call IBM.

SOFTWARE PACKAGE SUMMARY-6

6. Mathematical Programming System,MPS,,subsystem of IBM OS

Description

analyze potentialities of alternate business activities to choose those that permit best use of resources by linear programming techniques; analyzes capital, raw materials, manpower, plant and storage facilities and translates findings into minimum costs and maximum profits; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses IBM 360, 370 Assembler (S); security protection in operating system.

Resources Used

IBM 360/65, OS(S) operating system; I/O devices: card reader, printer.

History of Package

developed out-of-house at IBM; widely used; implemented 1967; last change 1969.

Availability

for further information call IBM.

University of Minnesota (FICE 002387)
(large, state, multicampus institution)
Minneapolis, Minnesota 55455

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research Administration 2642 University Avenue, S.E., St. Paul, Minnesota 55114; centralized with administrative structured of institution; for further information call Winifred A. Schumi, Research Fellow, 612/376-7353.

Administration Parameters for Contracts and Grants (FY74)

1000 contracts and grants for r&d, training, for the amount \$57.9M (expended) from 20-25 Federal agencies; 525(full time)/68(part time)/343 (students) professional staff; fields of research include all [1] plus humanities.

Computer Usage Profile

CDC Cyber 74, on-grounds, shared, interinstitutional; IBM 370, on-grounds, shared, interinstitutional.

Functions Administered [2]

HAS AUTOMATED: time and effort reporting (RB); planning and budgeting-historical and current expenditure analysis (GB); grant/contract information system-proposal and agency monitoring (RB); WILL BE AUTOMATING: fiscal reporting (GB); HAS NOT AUTOMATED: planning and budgeting-forecasting; indirect cost rate/fringe benefit rate-all; grant/contract information system-multicampus proposal/award communication network, sponsoring agency liaison; cost sharing-agreements (F), records management (B); internal audit(B); has automated research administration functions for non-Federally sponsored research.

Comments

greatest problems with 1) restrictive nature of the University accounting system; 2) using 2 different computer systems-one for proposal and award information and one for fiscal reporting.

SOFTWARE PACKAGE SUMMARY-1

1. Proposal and Award Information System

Description

grant/contract information system; also used for non-Federally sponsored research.

Reports Generated

regents docket-listing of all proposal and award activity monthly; statistical-reports summarizing data for each college, department, and granting agency.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses FORTRAN IV(M).

Resources Used

CDC Cyber 74, Kronos 2.1(M) operating system; 277 octal 10 character words high speed storage; tapes: 8 drives, 7 tracks, 555/300/1600 bpi; discs: 24M 10-character words; I/O devices: card reader, printer, CRT, card punch, teletype, EBR (microfilm).

History of Package

developed in-house; also used on CDC 6600 with Scope 3.1; implemented 7/71; last change 6/75.

Availability

software package and all manuals unavailable; for further information call Dennis J. Nolan, Senior Systems Analyst, 612/373-0313.

Comments

greatest problem with hardware-not yet stable.

43. UNIVERSITY OF MISSOURI

University of Missouri (FICE 002516)
(medium, state, member of institutional system)
Columbia, Missouri 65201

ADMINISTRATIVE INFORMATION

Reporting Unit

Vice President for Research, 309 University Hall, Columbia, Missouri 65201; centralized with administrative structure of institution; for further information call Paul R. Keenan, Assistant to V.P. for Research, 428 Clark Hall, U. of Missouri

Administration Parameters for Contracts and Grants (FY74)

800 contracts and grants for r&d, health services, training, construction for the amount \$31.2M (funded) from 19 Federal agencies; 2015 FTE teaching staff; fields of research include all [1].

Computer Usage Profile

IBM 370/168, computer network; DEC PDP 8-E.

Functions Administered

HAS AUTOMATED: proposal and agency monitoring; multicampus proposal/award communication network; faculty research activity; types of research conducted animal, human, radioisotopes, etc; patent and copyright management; protection of human subjects; all (GB); has automated research administration functions for non-Federally sponsored research.

Comments

greatest problems with human errors in processing basic information.

SOFTWARE PACKAGE SUMMARY-1

1. Grant Retrieval System, GDRS

Description

a multi-campus proposal/award communication network; each campus has access to its own Data File (only), derived from Master File (4 campuses + U-Wide data); also used for non-Federally sponsored research.

Reports Generated

file maintenance; administrative information; related areas of interest; etc., total programs available.

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential, random access; uses COBOL ANS v.4(S), PL1(S); security protection in data, operating system.

Resources Used

IBM 370/168, OS/VS2 v.1.7(M) operating system; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 25M bytes on a 2314; I/O devices: card reader, printer, 2741 terminal.

History of Package

developed in-house; also used on IBM 360/65 with OS(Full); IBM 370/165 with OS/MVT r.21.6; also used by Iowa State University, Ames, Iowa; implemented 7/66; last change 3/75.

Availability

User Manual available 3/75; all other manuals unavailable; for further information call James C. Martin, Sr. Computer Programmer, 314/382-2363, 820 Clark Hall, U. of Missouri.

Comments

greatest problems with too many human errors in processing basic data.

SOFTWARE PACKAGE SUMMARY-2

2. General Assurance-Protection of Human Subjects, HUMEX

Description

updates general assurance statement on the protection of human subjects.

Reports Generated

complete and updated general assurance statements.

Other Traits

processing mode is batch; data base is non-integrated with sequential random

access; uses PL1(S); security protection in data, operating system.

Resources Used

IBM 370/168, modified operating system; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 9M bytes; I/O devices: printer, 2741 terminal.

History of Package

developed in-house; last change 5/75.

Availability

for further information on software call same as package 1; all manuals unavailable; for further information on documents call Paul R. Keenan (see ADMIN. INFO.).

SOFTWARE PACKAGE SUMMARY-3

3. Patent and Copyright,,, subsystem of Patent and Copyright Status Report

Description

Patent and Copyright Information System; data files updated on a routine basis; status reports generated as needed-typically bi-monthly; plan to add additional search and recall modes including numerical summaries; also used for non-Federally sponsored research.

Reports Generated

status of each Patent or Copyright item under current consideration by University of Missouri; includes summary of all recommendations and actions taken on each item.

Other Traits

processing mode is interactive; data base is non-integrated with sequential, random access; uses Symbolic Editor (M); security protection in terminal, data.

Resources Used

DEC PDP8-E; modified operating system; tapes: 2 drives; I/O devices: teletype.

History of Package

developed in-house; implemented 7/73; last change 5/75.

Availability

software package available; all manuals unavailable; for further information call C. P. Merilan, Chmn, Patent & Copyright Committee, 314/382-4655, 201 Eckles Hall, U. of Missouri.

Comments

System has relatively simple search and recall capabilities. Modifications to provide additional features are in progress.

Washington University (FICE 002520)
(medium, independent, non-profit, single institution)
St. Louis, Missouri 63130

ADMINISTRATIVE INFORMATION

Reporting Unit

Research Office, Box 1054, Washington University; decentralized from and outside the administrative structure of institution; for further information call Robert J. Benson, Director, Computing Facilities, 314/8630100,x 3101.

Administration Parameters for Contracts and Grants (FY73)

546 contracts and grants for r&d, health services, training, construction for the amount \$34.9M (funded) from 13 Federal agencies; 1000 FTE technicians; fields of research include computer sciences, engineering, environmental science, life sciences, mathematics, psychology.

Computer Usage Profile

IBM 360/65, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash disbursements, accounts receivable, fiscal reporting, time and effort reporting (RB); indirect cost rate/fringe benefit rate-expenditure and budget analysis (RB); space-inventory; library-all; program management-cost control; all (GB) except where noted;

WILL BE AUTOMATING: planning and budgeting-all; grant/contract information system-proposal and agency monitoring.

HAS NOT AUTOMATED: indirect cost rate/fringe benefit rate-preparation of proposal; grant/contract information system-proposal preparation, sponsoring agency liaison; cost sharing-all.

Comments

Greatest problem is the inability to encumber personnel for life of grant (caused in part by institutional policies). Most of the present grants management automation is a part of the overall Financial Information System, so that it is difficult to separate out only those features appropriate to research management.

SOFTWARE PACKAGE SUMMARY-1

1. Financial Information System, FIS

Description

Integrated Accounting and Financial Information System; user oriented; two specific objectives: a) automate most manual audits and checks associated with expenditures, for example, overdrafts, within funded periods, and the like; b) supply management information; functions include financial accounting, indirect cost rate/fringe benefit rate; program cost control; thoroughly integrated with institutional financial management; designed to run with remote-job-entry data entry and timely reporting; plan enhancements of functional features, such as accounts payable, payroll, and integration of research reporting system; also used for non-Federally sponsored research.

Reports Generated

over one hundred.

Other Traits

processing mode is batch; data base is integrated with sequential, index-sequential access; uses COBOL ANS(S); security protection in operating system.

Resources Used

IBM 360/65, OS/MFT (S) operating system; 100k bytes high speed storage; tapes: 4 drives, 9 tracks, 1600 bpi; discs: 100 M bytes; I/O devices: card reader, printer; also COM.

History of Package

developed in-house; also used on IBM 370/145 with OS/VS1, IBM 370/168 with OS/VS2 r.2; also used by Louisiana Tech University, Reston, Louisiana, Texas Tech University, Lubbock, Texas, Bryn Mawr College, Bryn Mawr, Pennsylvania; implemented 7/70; last change 4/75.

Availability

software package available now for purchase at \$17,500; User and Accounting Manual available; Programmer and Operator Manuals limited available; for further information call Robert J. Benson (sec ADMIN. INFO.).

Comments

greatest problems with encumbering payroll for life of grant (beyond end of current fiscal year). This is institutional policy, however. FIS has been specifically designed to permit implementation by other institutions. Provisions to accomplish this include: parameter-driven transactional design, flexible report design, the 'profile' concept for account description. Summary available.

SOFTWARE PACKAGE SUMMARY-1a

1a. Cost Sharing/Overhead Calculation System, CS/O,, subsystem of Financial Information System

Description

calculate entries monthly for Cost Sharing and Overhead (indirect costs); calculates 99% of all entries necessary.

Reports Generated

Calculation Logs.

Other Traits, Resources Used

same as package 1 except data base is partially integrated with sequential access.

History of Package

developed in-house; implemented 1968; last change 6/72.

Availability

software package is available for purchase at \$5,000; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-1b

1b. Award Information Retrieval System, AIRS,, subsystem of Financial Information System (FIS)

Description

keeps track of all aspects of awards and proposals; interfaced with FIS to take advantage of FIS editing and updating and to keep step with FIS information; provides tape files on which user can write COBOL report generating programs quickly with SCORE, an easy to use COBOL preprocessor.

Reports Generated

use of COBOL pre-processor SCORE (Select, COpy, REport) enables limitless variety of reports.

Other Traits, Resources Used

same as package 1.

History of Package

developed in-house; implemented 6/75.

Availability

software package available for purchase at \$5,000; User and Programmer Manuals limited available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-2

2. W.U. Personnel System, WUPS

Description, Reports Generated

keeps historical and current reports about all personnel; includes multiple titles; designed for remote-batch operation; generates many reports; also used for non-Federally sponsored research.

Other Traits, Resources Used

same as package 1.

History of Package

developed in-house; implemented 7/72; last change 7/75.

Availability

software package available for purchase at \$5,000; User Manual limited available, Departmental Instructions available, Programmer and Operator Manuals unavailable; for further information call same as package 1.

Comments

summary of this quick response system available.

45. PRINCETON UNIVERSITY

Princeton University (FICE 002627)
(small, independent, non-profit single institution)
Princeton, New Jersey 08540

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research and Project Administration, P.O. Box 36, Princeton, New Jersey 08540; centralized with business administrative structure of institution; for further information call Allen J. Sinisgalli, Associate Director, 609/452-3095.

Administration Parameters for Contracts and Grants (FY 74)

513 contracts and grants for r&d, training for the amount \$30.8M (expended) from 16 Federal agencies; 1150 FTE professional staff, 210 FTE technicians; fields of research include all [1] but business.

Computer Usage Profile

IBM 360/91, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting (GB); indirect cost rate/fringe benefit rate (GB); grant/contract administration (RB); program management-cost control (GB); HAS NOT AUTOMATED: cost sharing-agreements.

Comments

Greatest problems are human error and lateness of reports.

SOFTWARE PACKAGE SUMMARY-1

1. Administrative Digest System, ORADS 1

Description

keeps essential University departments informed of the progress of a proposal, grant or contract; handles grant/contract information-proposal preparation, proposal and agency monitoring, sponsoring agency liaison; handles program management-cost control, man loading, forecasting, scheduling; also used for non-Federally sponsored research.

Reports Generated

proposals by sponsor (ORRPT01); proposals by department (ORRPT02); awards by department (ORRPT03); active projects (ORRPT04); projects expiring by month (ORRPT05); monthly or on demand.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses PL1(S), GIS; security protection in data, operating system.

Resources Used

IBM 360/91, HASP (M) operating system; 180K 8-bit bytes high speed storage; discs: 100 tracks (7294 8-bit bytes/track); I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 370/158 with OS.

Availability

software package unavailable; for further information call Howard Strauss, Technical Manager, 609/452-3103, 6th Floor, New South Bldg., Princeton, N.J. 08540.

Comments

Greatest problems are human--incorrect data inputs. Our program of fiscal control has not been listed as it is incorporated as part of our general accounting system and any further breakdown would be difficult.

46. RUTGERS UNIVERSITY-THE STATE UNIVERSITY OF NEW JERSEY

Rutgers University-The State University of New Jersey (FICE 002629)
(large, state, institutional system)
New Brunswick, New Jersey 08903

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Office of Research and Sponsored Programs, 116 College Ave., New Brunswick, N.J. 08903; decentralized from but within administrative structure of institution; for further information call Dr. David Pramer, Assoc. Vice President for Research and Sponsored Programs, 201/932-7117/8.

Administration Parameters for Contracts and Grants (FY74)

400-500 contracts and grants for r&d, training for the amount \$7.6M-research only, \$16.0M-research and other including Agricultural Experimental Station, (both funded amounts) from 22 Federal agencies; 440 professional staff, 50 technicians; fields of research include all [1] but business plus humanities, education, law, library science, pharmacy, philosophy, social work.

Computer Usage Profile

IBM 370/135, shared; IBM 370/158 and 370/168, computer network named New Jersey Educational Computer Network (NJEEN).

Functions Administered [2]

HAS AUTOMATED: financial accounting-all; equipment and specialized research facilities-inventory; procurement-all; library support-all; program management-cost control, man loading, forecasting, scheduling; all (GB).

WILL BE AUTOMATING: grant/contract information system.

Comments

All the fiscal systems were developed for general University use and have been applied to research control administration.

Some computer work presently on network machine. Eventually all work will be shifted to the network.

The Office of Research Programs has been operative for approximately one year. It is fully cognizant of the importance of utilizing computers to facilitate and enhance research administration functions, but the development of programs for this purpose remains to be accomplished and implemented.

ADMINISTRATIVE INFORMATION-2

Reporting Unit

Agricultural Experiment Station

Administration Parameters for Contracts and Grants (FY74)

contracts and grants for r&d for \$2.5M from Federal agencies.

Comments

The Experiment Station uses two computer software packages in the administration of its extension and research activities.

SOFTWARE PACKAGE SUMMARY-1

1. State Extension Management Information System, SEMIS

Description

used for reporting on the management of the activities of the State Extension Service. Information gathered and reported by the SEMIS system is forwarded to the federal government.

History of Package

developed by the Systems Development Corporation for the Federal government; maintained by the U.S. Department of Agriculture.

Availability

for further information call Tom Tate, 204/447-7417, Extension Service, PA&E, U.S.D.A., Wash., D.C. 20250.

SOFTWARE PACKAGE SUMMARY-2

2. Cooperative Research Information System, CRIS

Description

46. RUTGERS UNIVERSITY-THE STATE UNIVERSITY OF NEW JERSEY

has the same general functions as SEMIS (package 1), but reports on research activity at the Agricultural Experiment Station.

History of Package

developed by the U.S. Department of Agriculture Cooperative State Research Service, Wash., D.C.

Availability

for further information contact Cooperative State Research Service, U.S.D.A., Wash., D.C.

Comments

The CRIS software is not run on the University computer. Information is provided directly to the USDA.

47. COLUMBIA UNIVERSITY

Columbia University (FICE 002707)

(medium, independent, non-profit, main campus of multicampus institution)

116th Street and Broadway

New York, New York 10027

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Projects and Grants, Columbia University, Box 20, Low Memorial Library, New York, N.Y. 10027; decentralized from but within administrative structure of institution; for further information call James P. Lewis, Director, Office of Projects and Grants, 212/280-3023.

Administration Parameters for Contracts and Grants (FY74)

558 contracts and grants for r&d for the amount \$52.6M (funded) from almost all Federal agencies; 1000 FTE professional staff, 500 FTE technicians; fields of research include all [1] plus libraries and library science, humanities, law, social work.

Computer Usage Profile

IBM 360/91, on-grounds, shared; IBM 360/75, on-grounds, shared; DEC PDP 11/45, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting; budgeting; indirect cost rate; equipment and specialized research facilities-inventory; procurement-all; personnel management-current activities; library support-all; project management-cost control, man loading; all (GB).

Comments

Greatest problems are human-deciding what should be done, obtaining consensus among the different interest groups, finding a compromise position.

SOFTWARE PACKAGE SUMMARY

Part II of this questionnaire does not appear to apply to Columbia University. Almost all of our research management is accomplished using the University's general administrative systems (i.e. GASP-the general accounting system; BUDGET-the general budgeting system; etc.). These systems are specific to Columbia and the computer programs are not transferable. Also the resources used to run these systems represent compromises based upon our implementation environment rather than characteristics of the systems. Additionally these systems are implemented as multi-step jobs and thus resources vary from step to step. Finally since both general and research administration are performed by one system, the proportion of resources required for research administration is difficult to determine; any subdivision would be quite arbitrary. Thus we believe that completing the Part II of the questionnaire, in its present form, for this institution would be misleading.

Cornell University (FICE 007964)
(medium, independent, non-profit, and state multicampus institution)
Ithaca, New York 14850

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Academic Funding, 123 Day Hall, Ithaca, New York 14850; decentralized from but within administrative structure of institution; for further information call Jack W. Lowe, Assoc. Director, 607/256-5014.

Administration Parameters for Contracts and Grants (FY 74)

800 contracts and grants for r&d, training, construction for the amount \$30.5M (expended) from 20+ Federal agencies; 1500+ FTE professional staff; fields of research include all [1] plus arts, architecture, humanities, veterinary medicine.

Computer Usage Profile

IBM 370/168, on-grounds, shared.

Functions Administered

HAS AUTOMATED: proposal and award monitoring; forecasting; invention reporting; suspense actions; all (GB); HAS NOT AUTOMATED: funding source location.

Comments greatest problems with 1) inputting changes and maintaining consistent data, 2) shared data base with payroll/personnel.

Although we do possess computerized accounting, payroll, library and other systems mentioned, we feel these systems have already been adequately cataloged and documented in the CAUSE [3] Library.

SOFTWARE PACKAGE SUMMARY-1

1. Grants and Contracts Administration, GCA

Description

a Grant/Contract Information System: proposal and agency monitoring, project and deadline monitoring, staff monitoring, clerical assistance; package consists of ten separate programs; data base accessible to MARK IV query programs; also used for non-Federally sponsored research.

Reports Generated

suspense report (weekly), activity report and summaries (monthly), activity indexes (monthly), invention disclosure letters (every four months), projected support summaries (as required).

Other Traits

processing mode is batch; data base is integrated with IMS HISAM access; uses PL1 level F(S), IMS v.2 r.3(S); security protection via data base on off-line disc.

Resources Used

IBM 370/168, virtual machine (M) operating system; IMS(S) dbms; 280K bytes of CPU and high speed core; tapes: 1 drive, 9 tracks, 1600/6400 bpi; discs: 100 cyl. on 3330; I/O devices: card reader, printer, tapes.

History of Package

developed in-house; implemented 12/71; last change 1/75.

Availability

software package limited available; for further information on software call Joel Zumoff, Senior Programmer, 607/256-7240, Management Systems and Analysis (MSA), Cornell U.; all manuals limited available; for further information on documents call J. Paul Wetterau, Acting Data Base Administrator, 607/256-7240, MSA.

New York University (FICE 002735)
(large, independent, non-profit, single institution)
Washington Square
New York, New York 10003

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Office of Sponsored Programs, NYU, 5 Washington Square North, N.Y., N.Y. 10003; centralized with administrative structure of institution; for further information call Sidney G. Roth, Vice-Chancellor for Federal Relations, 212/598-2191.

Administration Parameters for Contracts and Grants (FY 74)

281 contracts and grants for r&d, training for the amount \$15.7M (expended) from 45 Federal agencies; 722 FTE professional staff; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional; UNIVAC 1108, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property; all (GB); WILL BE AUTOMATING: planning and budgeting-all (in '76); personnel management-current activities (in '76), interests (in '75) (RB); grant/contract information system-proposal preparation (RB), proposal and agency monitoring (in '76)(RF).

Comments

Greatest problem is software is either lacking or outmoded.

We believe we're making headway with Research Management problems, principally with the assistance of our NSF grant for such activities. Further, the University is just starting to recruit personnel for the implementation of a new computer package that will take some time to implement.

SOFTWARE PACKAGE SUMMARY-1

1. Certification of Time and Effort,,GOVTPGC1 through GOVTPGC4, subsystem of Payroll

Description

produces a report of all payroll charges to a contract for the month and contract to date to be signed (certified) by Project Directors.

Reports Generated

payroll distribution by contract (with certification statement); produced by the manipulation of data from the Payroll and/or Accounting files.

Other Traits

processing mode is batch; data base is non-integrated; uses BAL F(S), COBOL ANSI(S).

Resources Used

IBM 370/145, OS/MFT with HASP(S); 100K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 1-3330; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 1966.

Availability

User Manual unavailable, Programmer and Operator Manuals limited available; for further information call Joseph Ciciollo, Systems Area Manager, 212/598-3095, NYU-Meyer Hall, Rm. 311, N.Y., N.Y. 10003.

Comments

Greatest problems with 1) human error, 2) maintenance of converted 1401 Autocoder to BAL;

Packages 1-5 in use for many years without substantial change; recently acquired a new Accounting System from Information Associates of Rochester N.Y.; reporting needs will be reviewed prior to the implementation of this system; suspect that all current software for this purpose will become obsolete within two years.

SOFTWARE PACKAGE SUMMARY-2

2. Government Billing and Overhead,,GOVTPGVO/GVG/GVI/GVR, subsystem of Accounting

Description

calculates and updates ledger with overhead; prints various information reports

for management.

Reports Generated

1) Government overhead calculation; 2) guide to Government billing; 3) projects ending within 2 months; 4) contracts with activity after termination; 5) reconciliation.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses BAL F (converted from 1401 Autocoder).

Resources Used

same as package 1 except uses 4 tape drives; also uses card punch.

History of Package

developed in-house; implemented 1964; last change 12/74.

Availability

User Manual unavailable; Programmer and Operator Manuals limited available; for further information call Thomas Clancy, Program Manager, 212/598-3093, Meyer Hall of Physics, Rm. 307, N.Y., N.Y. 10003.

Comments

Greatest problem is maintenance of converted 1401 Autocoder to BAL.

SOFTWARE PACKAGE SUMMARY-3

3. Sponsored Research Funding Report,,GOVTPGVU/GOVTPGVV/, subsystem of Accounting

Description

produces report to control letter of credit funding.

Reports Generated

sponsored research funding report.

Other Traits, Resources Used, Availability

same as package 2.

History of Package

developed in-house; implemented 6/68.

SOFTWARE PACKAGE SUMMARY-4

4. Analysis of Government Accounts by Expense Code,,GOVTPG01/GOVTPG02, subsystem of Accounting

Description

prints a report by contract within expense code.

Reports Generated

analysis of Government accounts by object code within fund classification.

Other Traits, Availability

same as package 2.

Resources Used

same as package 1.

History of Package

developed in-house.

SOFTWARE PACKAGE SUMMARY-5

5. Status of Grants and Contracts,,GOVTPGV1 through 6, subsystem of Accounting

Description

prints various reports from Accounting files re status of Research Projects; plan to have Expenditure Control Reports (GV6) printed by Recipient instead of Account Number for easier distribution.

Reports Generated

1) status of grants and contracts (available balances); 2) status of grants and contracts-by granting agencies, Departments, and nature; 3) status of grants and contracts-by schools, departments, and nature; 4) analysis of contract research direct expense; 5) expenditure control reports by acct. no.

Other Traits, Availability

same as package 2 plus uses COBOL(S).

Resources Used

same as package 1 except uses 2 tape drives.

History of Package

developed in-house; implemented 1964; last change 11/74.

Comments

Greatest problems are manual error, converted 1401 Autocoder to BAL, difficult to maintain.

ADMINISTRATIVE INFORMATION-2

Reporting Unit

New York University Medical Center, Office of Grants and Contracts, 550 First Ave., N.Y., N.Y. 10016; centralized with administrative structure of Medical Center; for further information call Thomas Fitzgerald, Assistant Controller and Director of Research and Training Program Management.

Administration Parameters for Contracts and Grants (FY74)

1000 contracts and grants for r&d, health services, training for the amount \$38.9M (expended) from 18 Federal agencies; 732 FTE professional staff, 509 FTE technicians; field of research is life sciences.

Computer Usage Profile

IBM 370/135, on-grounds, dedicated, intrainstitutional.

Functions Administered

has automated: payroll, accounts receivable, fiscal reporting, property, time and effort reporting, budgeting, equipment inventory, equipment maintenance; supplies procurement; space inventory; personnel management.

SOFTWARE PACKAGE SUMMARY-1

1. Stores Inventory Control and Ordering System, SICOS, GCS001

Description

a procurement system for purchasing, controlling & reporting supplies ordered by departments from General Stores; produces daily and monthly reports; research administration filtered out by department/account code; plan to adapt this system to other inventory areas such as pharmacy, plant (maintenance) and central service; also used for non-Federally sponsored research.

Reports Generated

master item list, master vendor list, stock status report, open orders report, overdue list, department expense report, department transactions, department usage summary, vendor transactions, vendor activity report, inventory control evaluation report.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses COBOL D(S), Assembler (S); security protection in operating system and file.

Resources Used

IBM 370/135, DOS(S) operating system; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 400 tracks on 2319; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; translated to Burroughs COBOL(S); also used on Burroughs 3500; also used by Waterbury Hospital, Waterbury, Conn., St. Raphael Hospital, New Haven, Conn., Roosevelt Hospital, New York, N.Y.; implemented 9/71.

Availability

software package and manuals available for purchase for \$5,000 as of 5/75; for further information call James L. Moyer, Director of Data Systems, 212/679-3200, x 4105, NYU Medical Center.

SOFTWARE PACKAGE SUMMARY-2

2. General Accounting System, GAS, GAC019

Description

a fiscal administration system for reporting charges to departments and accounts; has a monthly reporting system which also includes budget accounts and reports balance of funds available; plan integration of other fiscal administration systems, complete automation of the general ledger, and complete automation of income reporting.

Reports Generated

comparative Statement of Budget Accts., Summary & Detail Interim Reports, Expendi-

ture Control Report, Month End Postings, Ledger, General Research Support, Assembly of Expense by Key Code, Unmatched Restricted Funds, Endowment Fund Key Code Reports, DHEW Reports.

Other Traits, Resources Used

same as package 1 except uses only COBOL D(S).

History of Package

developed in-house; implemented 6/72.

Availability

User Manual unavailable; Programmer Manual limited available, Operator Manual available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Payroll,,CPR004

Description

fiscal administration system for the payment and allocation of payroll expenses; processes weekly, biweekly and monthly payrolls; research administration filtered out by department/account code; plan to have payroll history maintained by the Payroll Department; also used for non-Federally sponsored research.

Reports Generated

check distribution register, update register, time reports, payroll register & checks, benefits registers, deduction registers, expense distribution reports, check reconciliation reports, year to date register, base listings.

Other Traits, Resources Used

same as package 1.

History of Package

developed in-house; implemented 4/71.

Availability

software package and Operator Manual available; User and Programmer Manuals limited available; all for purchase at \$2,500 as of 5/75; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Periodic Budgeting System,PBS,CAD001

Description

a planning and budgeting system for the wage and salary expense category; has a monthly reporting system; reports produced in a hierarchical fashion; department, unit & division; plan to incorporate non-salary expense items into the periodic budgeting system; also used for non-Federally sponsored research.

Reports Generated

monthly, period-to-date & year-to-date performance reports, financial statement line item report, organizational responsibility report, budget worksheets.

Other Traits, Resources Used

same as package 1.

History of Package

developed in-house; implemented 4/73; last change 9/73.

Availability

all manuals available; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-5

5. Time and Effort Reporting,,CAD917,subsystem of Fiscal Reporting/General Accounting

Description

a fiscal administration system which produces a monthly report of time worked, time paid but not worked and time not paid; produced on monthly basis and is a combined by-product of the Payroll and General Accounting System; also used for non-Federally sponsored research.

Reports Generated

detail salary report; time & effort report.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL D(S); security protection in operating system, file.

Resources Used

same as package 1 except no disc, no card punch.

History of Package

developed in-house; implemented 6/73.

Availability

same as package 4.

SOFTWARE PACKAGE SUMMARY-6

6. Capital Equipment Inventory,,CCE001

Description

maintains inventory records of capital equipment; has a monthly reporting system; plan to include other capital items such as buildings, land and improvements; also used for non-Federally sponsored research.

Reports Generated

capital equipment by location, capital equipment by ownership code, capital equipment by department code, capital equipment by inventory class, depreciation reports.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL D(S), Assembler (S); security protection in operating system.

Resources Used

same as package 5.

History of Package

developed in-house; implemented 9/68.

Availability

same as package 2.

SOFTWARE PACKAGE SUMMARY-7

7. Preventive Maintenance Inspection System,PMI,CPM001

Description

periodic identification of preventive maintenance to be performed on major equipment; a monthly reporting system which identifies that equipment which must be maintained in the coming month; plan to add cost reporting by shop performing the maintenance and cost allocation reporting of the work done; also used for non-Federally sponsored research.

Reports Generated

utilization report, activity report, incomplete jobs report, job action forms.

Other Traits

same as package 6 except uses no Assembler.

Resources Used

same as package 5.

History of Package

developed in-house; implemented 6/73.

Availability

software package and all manuals available; all for purchase for \$1500 as of 5/75; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-8

8. Communications Expense Reporting System,CERS,CC0002

Description

equipment utilization reporting system; has a monthly reporting system which uses data made available by the Telephone Company, i.e., Equipment File and Toll Billing File; plan to add actual charge back to using departments rather than current cost allocation; also used for non-Federally sponsored research.

Reports Generated

telephone statement of charges, departmental extension listing, unauthorized toll billing report, communications control report.

Other Traits, Resources Used

same as package 1 except data base is non-integrated and uses no Assembler.

History of Package

49. NEW YORK UNIVERSITY

developed in-house; implemented 6/72.

Availability

software package and all manuals available; all for purchase at \$3,000 as of 5/75; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-9

9. Affirmative Action System,,CPS005

Description

a personnel management system to assist in administering the affirmative action plan; interfaced with the Payroll System; run on a weekly update cycle with monthly reports; also used for non-Federally sponsored research.

Reports Generated

termination reasons report, minority group employee report, master employee report, job classification report, recent hires report, new hires referral source report, internal movement report.

Other Traits, Resources Used

same as package 1 except uses no Assembler.

History of Package

developed in-house; implemented 11/73; last change 11/74.

Availability

same as package 4.

50. ROCKEFELLER UNIVERSITY

Rockefeller University (FICE 002807)
(small, independent, non-profit, single institution)
66th St. and York Ave.
New York, N.Y. 10021

ADMINISTRATIVE INFORMATION

Reporting Unit

Controller's Office, Rockefeller University; centralized with administrative structure of institution; for further information call Janet Cocchiarella, Budgeting and Special Studies, 212/360-1223.

Administration Parameters for Contracts and Grants (FY74)

164 contracts and grants for r&d for the amount \$9.4M (expended) from 6 Federal agencies; 319 FTE professional staff, 255 FTE technicians; fields of research include life sciences, physical sciences, psychology.

Computer Usage Profile

DEC PDP 15, on-grounds, shared; UNIVAC 1108, off-grounds, shared, computer network (computer at NYU).

Functions Administered

HAS AUTOMATED: a comprehensive financial accounting system; budgeting-both historical and future, integrated with financial accounting; equipment inventory; vendor analysis; space inventory; press subscription fulfillment; all (GB).

Comments

Hardware and software are adequate and reliable. The greatest problems are maintaining good quality information (e.g. updating space inventory when the use of a particular room is changed). However, problems have not been too difficult. Purchased software and use of time-sharing network have both been highly cost effective and permitted efforts to be directed towards collecting, maintaining, and reporting information.

SOFTWARE PACKAGE SUMMARY-1

1. Budgeting

Description

provides each department and laboratory with a listing of their faculty, staff, and supply & expense budgets from both grant & university sources; also used for non-Federally sponsored research.

Reports Generated

department & laboratory listings.

Other Traits

processing mode is batch; data base is non-integrated with index sequential access; uses FORTRAN (S); security protection in all [4].

Resources Used

DEC PDP15, DOS (S) operating system; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 7/73.

Availability

all manuals unavailable; for further information call Toby Fishman, Computer Operations and Analyst, 212/360-1149.

Comments

Hardware and software are adequate and reliable. The greatest problems are maintaining good quality information.

A tape drive may be used for an input device instead of a card reader to supply consistent copies of our budget listings.

SOFTWARE PACKAGE SUMMARY-2

2. Space Inventory

Description

provides data on the spacial facilities of the university; also used for non-Federally sponsored research.

Reports Generated

listings of departments & laboratory spacial facilities, including room numbers & responsible persons controlling those facilities.

Other Traits, History of Package, Availability

same as package 1.

Resources Used

same as package 1; also uses 1 tape drive with 7 track, 800 bpi tape.

Comments

same as package 1. Also, the listings generated provide a more efficient way of determining distribution of available spacial facilities.

SOFTWARE PACKAGE SUMMARY-3

3. Financial Accounting System, FAS

Description

records and reports all financial transactions including budget variances and managerial reporting as well as traditional financial reporting.

Reports Generated

standard financial reports and specialized managerial reports; report generator capability used.

Other Traits, Comments

same as package 1 except uses COBOL(S).

Resources Used

UNIVAC 1108, Exec VIII (S) operating system; tapes: 1 drive, 9 tracks, 1600 bpi; drums: 400 cyl; discs: 8M words; I/O devices: card reader, printer.

History of Package

developed commercially by Information Associates, Inc.; also used on all major 3rd generation equipment (e.g. IBM, Honeywell, Burroughs, DEC) with DOS and OS; also used by University of Pennsylvania, University of Massachusetts, University of Rochester; implemented 7/70; last change 1972.

Availability

available through Information Associates, Inc.

SOFTWARE PACKAGE SUMMARY-3a

3a. Equipment Inventory, FAS,, subsystem of Financial Accounting System

Description

maintains record of cost of equipment acquisitions and current equipment inventory; also used for non-Federally sponsored research.

Reports Generated

reports by fiscal year, funding source, laboratory or department "key word," etc.; report generator capability included.

Other Traits, Resources Used, Availability, Comments

same as package 3.

History of Package

same as package 3 except implemented 7/73; last change 1974.

SOFTWARE PACKAGE SUMMARY-3b

3b. Press Subscription Fulfillment, subsystem of Financial Accounting System (FAS)

Description

handles all subscription fulfillment functions.

Reports Generated

mailing labels, invoices, master directory file and managerial reports.

Other Traits, Resources Used, Availability, Comments

same as package 3.

History of Package

same as package 3a.

SOFTWARE PACKAGE SUMMARY-3c

3c. Vendor Analysis, FAS,, subsystem of Financial Accounting System (FAS)

Description

maintains summary of transactions records with individual vendors; also used for non-Federally sponsored research.

Reports Generated

summary reports by vendor, type of purchase, etc.; report generator capability included.

Other Traits, Resources Used, Availability, Comments

same as package 3.

History of Package

same as package 3a.

51. STATE UNIVERSITY OF NEW YORK (SUNY)

State University of New York (SUNY) (FICE 002834)
(large, state, institutional system)
99 Washington Ave.
Albany, New York 12210

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Research Foundation of State University of New York, P.O. Box 7126, Albany, New York 12224; decentralized from and outside administrative structure of institution; for further information call James D. Dillon, Jr., Assistant Director for Information Services, 518/474-0557.

Administration Parameters for Contracts and Grants (FY74)

100 contracts and grants for r&d, health services, training for the amount \$47.5M (expended) from 30 Federal agencies; 2000 FTE professional staff, 3200 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/158, off-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting; planning and budgeting; indirect cost rate/fringe benefit rate; equipment and specialized research facilities-inventory; space-utilization/allocation; personnel management-current activities; grant/contract information system-proposal and agency monitoring, multi-campus proposal/award communication network; internal audit; all (RB).

WILL BE AUTOMATING: personnel management-capabilities ('75), interests ('75); cost sharing-agreements ('75); all (RB).

HAS NOT AUTOMATED: grant/contract information system-sponsoring agency liaison.

Comments

The Research Foundation of SUNY is the administrative center for research at all SUNY institutions.

[Ed.Note-Since the main reply for the two State Universities queried came from the central Research Foundation of SUNY, these Universities have been listed under SUNY.]

SOFTWARE PACKAGE SUMMARY-1a

1a. Personnel Data System, PDS,, subsystem of Sponsored Funds Administration System

Description

personnel management; contains data base for all project personnel, fellows receiving stipends and administrative members of Research Foundation's staff in Albany; individual personnel records include an educational history, personnel information, and retirement and life insurance data; creates personnel and payroll enumeration records and maintains these with all pertinent employment information; provides the ability of inquiring into any existing personnel record, via a terminal, and giving a complete hard copy print-out of all information on the associated 3270 printer; monitoring reports generated from the system on a periodic or on request basis; also used for non-Federally sponsored research.

Reports Generated

1) Blue Cross/Blue Shield reports and invoice; 2) Equal Employment Opportunity report; 3) various statistical reports; 4) group life insurance and long term disability report; 5) group life insurance and long term disability annual age classification; 6) dental insurance reports and invoice; 7) TIAA-CREF monthly bill, vesting reports and supporting reports; 8) parameter report allows selection of and information on the data base in any format.

Other Traits

processing mode is interactive; data base is integrated with sequential index-sequential, BDAM access; uses COBOL (S); security protection in all [4] but transmission.

Resources Used

IBM 370/158; VS(S) operating system; HASP,CICS,STAIRS,ATMS (all S) dbms; 1M bytes monolithic high speed VS; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 9M bytes; I/O devices: card reader, printer, CRT.

History of Package

developed in-house; also used on IBM 370/155 with OS; implemented 1969-70; last change Spring, '75.

Availability

51. STATE UNIVERSITY OF NEW YORK (SUNY)

all manuals available; for further information call James D. Dillon, Jr. (see ADMIN. INFO.).

Comments

greatest problems with 1) consistent response time during peak use periods; 2) high cost of terminal hardware; 3) telephone line problems.

Supported by a full set of online, realtime 3270 interactive data entry transactions and inquiries.

SOFTWARE PACKAGE SUMMARY-1b

1b. Payroll System, P/R,,subsystem of Sponsored Fund Administration System

Description

preparation of payrolls and required by-product reports; calculates, deducts and records employees withholdings and fringe benefits on a semimonthly, biweekly, or weekly basis; inquiry into an existing payroll record available via a 3270 terminal, with a special everchanging confidential code for restricted payroll information; automatically disencumbers the payroll and charges the appropriate grant account record; also used for non-Federally sponsored research.

Reports Generated

time reporting document; payroll checks; payroll register; payroll distribution/fringe benefits report; unemployment insurance report; quarterly disability report; workman's compensation report; W-2's, 1099's; quarterly 941 and 941A; quarterly summary of YTD earnings.

Other Traits, Resources Used, History of Package, Availability, Comments

same as package 1a.

SOFTWARE PACKAGE SUMMARY-1c

1c. Vendor Encumbrance and Payment System,,,subsystem of Sponsored Fund Administration System

Description

provides a method of Purchase Order encumbrance and subsequent vendor payments; obligates funds for personal services, supplies, equipment and travel commitments; encumbrance process assures these obligations are recognized when determining available balance of an account; obligations liquidated, in whole or in part, at time of payment; functions as a financial monitor and limits activity; expenditure, and encumbrance, to level of award; automatically produces a preprinted hard copy document for purchasing process; provides daily totals; also used for non-Federally sponsored research.

Reports Generated

open purchase order listing; vendor check register; vendor checks; expenditures and disencumbrance register and summary; stores account register; prepare 1099 for consultants; check reconciliations.

Other Traits, Resources Used, History of Package, Availability, Comments

same as package 1a.

SOFTWARE PACKAGE SUMMARY-1d

1d. Grants Information System, GIS,,subsystem of Sponsored Funds Administration System

Description

multi-campus Proposal/Award Communication Network, Grant and Contract Management Information System; collects information from application through receipt of sponsor award notice or disapproval; becomes a statistical data base from which a variety of current month activity and statistical reports are produced; allows for capturing of information concerning project history, time lapse between application and award, and requested and awarded amounts; maintained on a realtime basis; certain data elements made immediately available to the accounting system; also used for non-Federally sponsored research.

Reports Generated

grantsmanship report; Federal aid notices; report of outstanding acknowledgement receipts for applications submitted; report of pending applications on file; report of applications disapproved or closed; summary report of awarded dollars vs. requested dollars; automated abstracts; parameter reports allow selection of

and information on the data base in any format.
Other Traits
same as package 1a except no index-sequential access.
Resources Used, History of Package, Availability, Comments
same as package 1a.

SOFTWARE PACKAGE SUMMARY-1e

1e. Equipment Inventory System, EIM,, subsystem of Sponsored Fund Administration System

Description

Equipment Inventory Management and Property Control; data base records include description, price, and name of vendor; inventory items maintained with condition code and disposition code for inventory transfers, sales, or salvage and deletions; periodic reports generated by system and sent to various Campus Business Offices and Project Directors; reports serve as inventory listings for campuses and inform Project Director of equipment for which he is responsible; Equipment Inventory records created automatically as by-product of Vendor Payment System.

Reports Generated

equipment inventory report, property control record and file cards; equipment inventory control reports; paid-up equipment purchase order listing.

Other Traits, Resources Used, History of Package, Availability, Comments
same as package 1a.

SOFTWARE PACKAGE SUMMARY-1f

1f. Supporting Systems,, subsystem of Sponsored Fund Administration System

Description

some of these enhancement systems are Universal Mailing, Income Fund Offset, and University Awards System; Universal Mailing System allows for a large-scale distribution of various types of printed material. It is controlled by a single online, realtime transaction that can add, change, delete, reactivate and terminate any record; each record has fifty mail indicators that are used to categorize each individual (e.g., Project Director, Business Manager). When labels are required, any combination of indicators can be obtained.

Income Fund Offset is a pseudo payroll system that reimburses the appropriate campus income funds for services performed by individuals paid by the State, who work on sponsored projects. The system is supported by realtime transactions that provide the ability to change, and inquire against records in the data base. It also produces a register that lists those individuals for whom payments have been made.

Reports Generated

1) Universal Mailing System - mail master listing; mailing labels; 2) Income Fund Offset System-register; checks; 3) University Awards System-award letters; statistical reports.

Other Traits, Resources Used, History of Package, Availability, Comments
same as package 1a.

SOFTWARE SUMMARY PACKAGE-2

2. Faculty Interest Profile System, FIPS

Description

match funding opportunities with stated interests of faculty members by means of a faculty profile search; does retrospective searches of potential funding notices for new faculty members; also used for non-Federally sponsored research.

Reports Generated

printed notice to faculty member giving notice of the availability of grant; a directory of faculty research and scholarship.

Other Traits, Resources Used, Comments
same as package 1a.

History of Package

developed in-house; implemented 6/75.

Availability

User Manual available; for further information call same package 1a.

SOFTWARE PACKAGE SUMMARY-3

3. Accounting Information System, AIS

Description

manages and controls cash receipts, cash disbursements, accounts receivable; makes available information regarding fiscal reporting, budget and expenditure data; of modular design which allows the various accounting transactions to be checked for adherence to Sponsor policy, content, accounting practice; uses IBM 3270 terminals to collect information and post to appropriate data bases on realtime basis; primary data base is Accounting Grant Master created from award notice; transactions can create other system data bases and/or other transaction records; also used for non-Federally sponsored research.

Reports Generated

monthly budget journal; indirect cost journal, monthly listing of grants requiring manual computation of indirect cost; indirect cost summary; cash receipts journal; report of cash position of direct payment accounts; report of deficit direct payment accounts; monthly general journal summary; account expenditure report and summaries; NSF cross reference; NIH reporting system; automated final reporting system; sponsor billing.

Other Traits, Resources Used, History of Package, Availability, Comments
same as package 1a.

51.2 SUNY STATE UNIVERSITY, BUFFALO (FICE 002837)

SUNY State University, Buffalo (FICE 002837)
(medium, state, member of institutional system)
3435 Main St.
Buffalo, New York 14214

ADMINISTRATIVE INFORMATION-2

Reporting Unit-same as SUNY.

COMPUTER SOFTWARE PACKAGES-same as SUNY

51.3 SUNY STATE UNIVERSITY, STONY BROOK (FICE 002838)

SUNY State University, Stony Brook (FICE 002838)
(medium, state, member of institutional system)
Stony Brook, New York 11790

ADMINISTRATIVE INFORMATION-3

Reporting Unit-same as SUNY

COMPUTER SOFTWARE PACKAGES-same as SUNY

ADMINISTRATIVE INFORMATION-4

Reporting Unit

Office of Dean for Research; for further information call Dr. Robert Schneider, Associate Dean for Research, 516/246-7935.

Comments

currently developing an application/grant monitoring program which extends through award state.

University of Rochester (FICE 002894)
(small, independent, non-profit, single institution)
River Station
Rochester, New York 14627

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research and Project Administration, University of Rochester; centralized with administrative structure of institution; for further information call Donn P. Drake, Associate Director, 716/275-4031.

Administration Parameters for Contracts and Grants (FY74)

600 contracts and grants for r&d, health services, training for the amount \$28.8M (expended) from 12 Federal agencies; 900-1000 FTE professional staff, 300 FTE technicians; fields of research include all [1] plus art, music.

Computer Usage Profile

IBM 360/50, on-grounds, shared; IBM 360/65, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting (GB); equipment inventory; planning and budgeting data base (GB); grant/contract information system (RB); cost/sharing (RF); HAS NOT AUTOMATED: indirect cost rate; note that above covers research administration only.

Comments

Our General Ledger Accounting System was designed to serve the needs of research administration by including a set of attributes by which the activity can be compiled in several formats-by purpose, division, school, geographic location, department, sponsor, etc.

Greatest problem is human from standpoint that it is probably not possible to have sufficient numbers of analysts and programmers to obtain immediate changes in production runs and design of product. Other problems seem to always have a higher priority partly because the systems serving us are working well enough that we have no serious complaint.

Perhaps no system should be designed to serve one department only. Our General Accounting System has so much flexibility that a separate Ledger System was set up for sponsored expenditures, including the attribute system that permits us to recall information from the ledger in the format we need.

SOFTWARE PACKAGE SUMMARY-1

1. Research Administration System

Description

does proposed, accepted, rejected grant status accounting; also used for non-Federally sponsored research.

Reports Generated

status of above; update transaction file; snapshot capability to examine individual or grouped projects.

Other Traits

processing mode is batch; data base is non-integrated with index-sequential access; uses COBOL(S).

Resources Used

IBM 360/50, DOS(S) operating system; 50K bytes high speed storage; tapes: 2 drives; discs: 40 tracks on 2314; I/O devices: card reader, printer.

History of Package

developed in-house and out-of-house at Information Associates, Inc.; implemented 2/71.

Availability

User and Programmer Manuals limited available, Operator Manual unavailable; for further information contact Vincent Swoyer, Director, Information Services Center.

Comments

Runs well. Could include an abstracting feature. Occasionally runs out of disc space.

53. NORTH CAROLINA STATE UNIVERSITY, RALEIGH

North Carolina State University, Raleigh (FICE 002972)
(medium, state, member of institutional system)
Raleigh, North Carolina 27607

ADMINISTRATIVE INFORMATION

Reporting Unit

Research Administration, P.O. Box 5356, Raleigh, N.C. 27607; centralized with administrative structure of institution; for further information call Earl G. Droessler, Dean for Research, 919/737-2117.

Administration Parameters for Contracts and Grants (FY74)

131 contracts and grants for r&d, training for the amount \$5.9M (funded) from 14 Federal agencies; fields of research include all [1] but business plus textiles.

Computer Usage Profile

IBM 360/40, on-grounds, shared; IBM 370/165, off-grounds, computer network named TUCC.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash disbursements, fiscal reporting; planning and budgeting-all; procurement-all; personnel management-current activities; grant/contract information system-multicampus proposal/award communication network; all (GB).

WILL BE AUTOMATING: financial accounting-cash receipts, accounts receivable, property; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities; space.

Comments

Equipment is adequate. Need is for more human resources, e.g. programmers.

SOFTWARE PACKAGE SUMMARY-1

1. Research Grants Summary,,J-9631

Description

keeps record of sponsored research activity; also used for non-Federally sponsored research.

Reports Generated

monthly activity of proposals submitted, awards received, proposals rejected, projects terminated, and listing of all currently funded projects as well as all proposals pending-by school and department and agency and type.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses ANS COBOL v.2(S), security protection in data.

Resources Used

IBM 360/40, MFT(S) operating system; 120K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 25M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 370/165 with MVT; implemented 1966; last change 1968.

Availability

for further information on software call H. L. Buckmaster, Mgr., Administrative Computing Services, 919/737-2794, 110 Brooks Ave., Raleigh, N.C. 27607; all manuals unavailable; for further information on documents call Vita M. Dick, Dept. Budget Clerk, 919/737-2117, Research Administration.

Comments

same as ADMIN. INFO.

SOFTWARE PACKAGE SUMMARY-2

2. General Accounting and Expenditure Reporting,,J-9610

Description

handles financial accounting and production of various financial reports; will be adding complete automation of financial accounting; also used for non-Federally sponsored research.

Reports Generated

expenditure reports; project reports; general financial reports.

Other Traits, Resources Used

53. NORTH CAROLINA STATE UNIVERSITY, RALEIGH

same as package 1.

History of Package

same as package 1 except implemented 1973; last change 1975.

Availability

same as package 1 except for further information on documents call Glenn E. Musser, Contract & Grants Officer, 919/737-2153, Office of Business Affairs, Research Admin.

Comments

need to completely automate the financial accounting functions; need more personnel for programming; data base for contract and grants needs to be broadened to achieve day to day budget controls and for production of special type fiscal reports on request.

54. UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL

University of North Carolina, Chapel Hill (FICE 002974)
(medium, state, member of institutional system)
Chapel Hill, North Carolina 27514

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research Administration, 01 South Building, U. of N.C., Chapel Hill; centralized with administrative structure of institution; for further information call Dr. George R. Holcomb, Dean of Research Administration, 919/933-1383.

Administration Parameters for Contracts and Grants (FY74)

555 contracts and grants for r&d, health services, training for the amount \$41.6M (funded) from 20 Federal agencies; 2204 FTE professional staff, 610 FTE technicians; fields of research include all [1] plus law, journalism, social work, education, library science, humanities.

Computer Usage Profile

UNIVAC 70/7, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities-inventory; space-inventory, utilization/allocation; personnel management-current activities; library support-all; grant/contract information system-proposal and agency monitoring (RB), sponsoring agency liaison (RB); cost sharing-agreements; all (GB) except where noted; WILL BE AUTOMATING: planning and budgeting-historical and current expenditure analysis ('76); equipment and specialized research

facilities-maintenance ('76); procurement-all ('77); personnel management-capabilities-tech. only ('77); program management-forecasting ('77).

SOFTWARE PACKAGE SUMMARY-1

1. Research Administration System,,RA

Description

provides management information (both fiscal information, and contract/grant awards) on a fiscal year basis; basically stand-alone, batch system; uses overhead information generated by the University's accounting system (the General Financial System); possibility of on-line data entry and inquiry capabilities; also used for non-Federally sponsored research.-

Reports Generated

monthly report of contract/grants received, status list (by University assigned sequence number, entire file), agency number cross-reference report, annual report, several miscellaneous reports (on demand).

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses ANS COBOL ('71 S); security protection in operating system, password.

Resources Used

UNIVAC 70/7, VS/9 r.1(S) operating system; 512K bytes core storage; tapes: 6 drives, 9 tracks, 800 bpi; drums: 8M bytes (for virtual storage); discs: 696M bytes on 8440, 145M bytes on 590; I/O devices: card reader, printer; input prepared on OCR typewriters, processed through ScanData 2250 to produce magnetic tape.

History of Package

developed in-house; also used on UNIVAC 70/46 with TSOS (time sharing op. system); implemented 7/71; last change 6/74.

Availability

software package available for purchase at \$200 (our cost) as of 7/75; User Manual available for purchase at \$3.00 as of 7/75; Programmer Manual available for purchase at \$7.50 as of 7/75; for further information call Chuck Antle, Assoc.

Dir., Adm. DP, 919/929-1451, U.of N.C., 440 W. Franklin St., Chapel Hill, N.C. 27514.

Comments

Problems are: (1) Information, from granting agencies, is sometimes sent directly to the principal investigator, academic department, or President's office (means data may be late getting to Research Administration Office. (2) System, as currently run, keeps all contracts/grants on one data file (active and inactive); file is large. As priority permits, the system needs re-definition, and re-programming, to split files.

System consists of 10 programs. All input OCR-typed by the user (University Research Administration). Most processing on a monthly basis (approximately \$1000 computer machine time used per year).

Ohio State University (FICE 006883)
 (large, state, main campus of multicampus institution)
 Columbus, Ohio 43210

ADMINISTRATIVE INFORMATION

Reporting Unit

Ohio State University Research Foundation, 1314 Kinnear Road, Columbus, Ohio 43212; centralized with administrative structure of institution; for further information call Raymond S. Bugno, Deputy Executive Director, 614/422-3805.

Administration Parameters for Contracts and Grants (FY74)

771 contracts and grants for r&d for the amount \$21.2M (expended) from 31 Federal agencies; 450 FTE professional staff, 205 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/158, on-grounds; shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all; planning and budgeting-historical and current expenditure analysis; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities-inventory; procurement-all; personnel management- capabilities, interests; grant/contract information system-proposal and agency monitoring, sponsoring agency liaison; cost sharing-records management; program management-cost control; all (RB); HAS NOT AUTOMATED: indirect cost rate/fringe benefit rate-forecasting techniques, preparation of proposal;equipment and specialised research facilities-maintenance; grant/contract information system-proposal preparation; cost sharing-agreements.

Comments

Our current problems seem to center on our teleprocessing network. We are experiencing more "downtime" than should be expected. The problems seem to be a mix of lines down, or modem malfunctions or the teleprocessing system itself. The systems described have been highly specialized for The Ohio State University Research Foundation (OSURF).

SOFTWARE PACKAGE SUMMARY-1

1. Faculty Interest Profile System, FIPS

Description

maintains faculty personnel capabilities and research interests; also used for non-Federally sponsored research.

Reports Generated

Directory of Faculty Research Interests; a keyword search inquiry capability to match research interests to possible fund sources.

Other Traits

processing mode is batch; data base is integrated, partially integrated, non-integrated with sequential, index-sequential access; uses ANS COBOL(S), GIS(S); security protection in transmission, terminal, operating system.

Resources Used

IBM 370/158, OS/MVT(S) operating system; GIS(S) dbms; tapes: 1-3 drives, 9 tracks, 1600 bpi; discs: 1 3330-2 available; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 11/74.

Availability

for further information on software package call Ronald K. Smith, Director, OSURF Data Processing, 614/422-7896; all manuals limited available; for further information on documents call Herbert G. Toennisson, Director of OSURF Systems, 614/422-5825.

Comments

System is still in prototype stage; highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-2

2. Proposal and Award Information Retrieval System, PAIRS

Description

monitors proposals and agencies; also used for non-Federally sponsored research.

55. OHIO STATE UNIVERSITY

Reports Generated

report capabilities include: (1) monthly management reports; (2) listings by sponsor, college, departments, principal investigator, etc.; and (3) certain statistical summaries.

Other Traits

same as package 1 except data base is non-integrated with sequential, index-sequential access.

Resources Used, Availability

same as package 1.

History of Package

developed out-of-house at Stanford University and in-house (extensively modified for OSU); also used on IBM 370/155 with OS/MFT, IBM 360/50 with OS/MFT/MVT; implemented 6/72; last change 1/75.

Comments

A basic problem exists in that the design was accomplished at another institution. Also, it has been highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-3

3. Fiscal Administration System

Description

handles all areas of fiscal administration of sponsored research except forecasting; includes commitments of personnel costs, certain fringe benefits, indirect costs, purchasing commitments and travel; also used for non-Federally sponsored research.

Reports Generated

Standard fiscal reports; management exception reports; special information reports as required.

Other Traits, Resources Used, Availability

same as package 1 except uses GIS 2.3(S).

History of Package

developed in-house; also used on IBM 370/155 with OS/MFT, IBM 360/50 with OS/MFT/MVT; implemented 1965; last change 7/74.

Comments

Programs and hardware have become very stable. The design is getting old. Human problems of data definition and data integrity seem to be the constant time-consuming task area. Some of this human problem may be due to personnel turnover. System has been highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-4a

4a. Payroll Distribution System,,,subsystem of Financial Administrative System

Description

a payroll distribution and time and effort reporting system; payroll checks produced through OSU Payroll System, but this system not dependent on any payroll check writing system; also used for non-Federally sponsored research.

Reports Generated

Reports are generated to document time and effort reporting and dollar distributions to sponsored research. Certain information reports are produced.

Other Traits, Resources Used, Availability

same as package 1 except uses only ANS COBOL(S).

History of Package

same as package 3 except implemented 1968.

Comments

System is not as personnel statistics oriented as it could be. It was primarily developed as a cost system. System has been highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-4b

4b. Cash Disbursement System,,,subsystem of Financial Administrative System

Description

generates cash disbursements and distributes costs to appropriate accounts; also used for non-Federally sponsored research.

Reports Generated

checks; check register; distribution report.

Other Traits, Resources Used, Availability

same as package 1 plus uses physical check security.

History of Package

same as package 3 except last change 9/70.

Comments

Only a few infrequent non-related problems have occurred since 1970. System has been highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-5

5. Property Administrative System

Description

provides administration and management information on OSURF purchased equipment; will be expanding indexes used in COM output and adding prior approval data to system; also used for non-Federally sponsored research.

Reports Generated

(1) microfiche listing of all equipment indexed by project, inventory ID and equipment name; (2) summary type reports by project, college, department, sponsor, etc., and (3) certain other statistical summaries.

Other Traits

same as package 1 except data base is integrated, non-integrated with sequential, index-sequential access.

Resources Used

same as package 1 except has available 200M bytes on 3330-11 disc; also uses COM.

History of Package

developed in-house; also implementing a modified version at Ohio State University, Columbus, Ohio; implemented 2/74.

Availability

same as package 1.

Comments

Indexes used in COM output are not comprehensive enough. Basic system design does not include prior approval data inputs. System has been highly specialized for OSURF.

SOFTWARE PACKAGE SUMMARY-6

6. OSURF Data Inquiry System

Description

provides more timely financial information available for inquiry than is provided on periodically printed reports; certain summary information available that is not provided elsewhere in OSURF systems; information is updated whenever have valid data in machine readable form; quick information response provided for project administration; provides user with the capability to move about to different data with relative ease; will be adding additional data relating to commitments, detail financial charges, and proposal and award information; system considered building block for on line data collection; also used for non-Federally sponsored research.

Other Traits

processing mode is interactive; data base is non-integrated with index-sequential access; uses ANS COBOL(S), CICS(S); security protection in transmission, terminal, operating system.

Resources Used

IBM 370/158, OS/MVT/CICS(S) operating system; discs: 200M bytes on 3330-11 available; I/O devices: CRT.

History of Package

developed in-house; also used on IBM 370/155 with OS/MFT/CICS; implemented 12/72; last change 3/75.

Availability

same as package 1.

Comments

greatest problems with 1) user education concerning the various ways of inquiring into data available; 2) creating a comprehensive users manual; 3) data transmission problems with multiple vendors; 4) maintaining a software system which does not crash. System has been highly specialized for OSURF.

56. UNIVERSITY OF CINCINNATI

University of Cincinnati (FICE 003125)
(large, state & local, main campus of multicampus institution)
Cincinnati, Ohio 45221

ADMINISTRATIVE INFORMATION

Reporting Unit

Southwestern Ohio Regional Computer Center (SWORCC), 694 Medical Services Building, 231 Bethesda Avenue, Cincinnati, Ohio 45267; decentralized from but within administrative structure of institution; for further information call Mary Jo Mangan, Mgr., Admin. Projects & Asst. to Dir. of SWORCC, 513/475-4547.

Administration Parameters for Contracts and Grants (FY74)

contracts and grants for r&d, health services, training for the amount \$18.3M (funded, '73-'74) from 14 Federal agencies; 130 FTE professional staff at SWORCC, 90 FTE technicians; fields of research include business, engineering, environmental science, life sciences, physical sciences.

Computer Usage Profile

IBM 370/168, on-grounds, shared, computer network named SWORCC.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis, forecasting techniques; procurement-all; grant/contract information system-proposal and agency monitoring; internal audit; all (GB); has automated research administration functions for non-Federally sponsored research.

Comments

Greatest problems with software-too many varied applications under CICS on our computer system.

SWORCC is a consortium of the University of Cincinnati and Miami University serving the computing needs of both.

SOFTWARE PACKAGE SUMMARY-1a

1a. Application and Awards Sub-System, AAS,, subsystem of Grants and Contracts Accounting System

Description

handles financial accounting; planning and budgeting; grant/contract information system; cost sharing; AAS Data Base has inquiry via 3270 CRT and is used in financial accounting; plan to expand system to provide for space and equipment needs; also used for non-Federally sponsored research.

Reports Generated

project director & awards; budget account balance summary expenditure report; historical awards report; AAS data base list; monthly budget account ledgers.

Other Traits

processing mode is batch; data base is integrated with sequential, indexsequential access; uses PL1 level F(S); security protection in all [1] but operating system.

Resources Used

IBM 370/168, OS/MVT HASP(S) operating system; OS(S) dbms; 150K bytes high speed storage; tapes: 5 drives, 9 tracks, 800 bpi; discs: 50 cyl. on 3330; I/O devices: card reader, printer, CRT.

History of Package

developed in-house; also used on IBM 360/65 with OS; implemented 7/71; last change 9/73.

Availability

User Programmer and Scheduling Manuals limited available; for further information call Bruce McBreen, Area Systems Manager, 513/475-4032, U. of Cincinnati, Medical Services Building

Comments

relatively few problems, mainly user type.

The prime benefit of this sub-system is the creation of a new data base capable of satisfying the information needs of all levels of administration. Retention of application information alone will provide a base from which to analyze the effects of cutbacks of funds by selected agencies, as well as to project income relating to grants and contracts. This base will also provide an automated means of performing many Grants/Contracts operational functions.

SOFTWARE PACKAGE SUMMARY-1b

1b. Accounting Cycle Sub-System II,,,subsystem of Grants & Contracts Accounting System

Description

handles fiscal reporting, cost control; expenditure and budget analysis; provides the mechanism for producing financial information on a grant year basis; also used for non-Federally sponsored research.

Reports Generated

budget account ledgers, weekly budget balance list.

Other Traits

same as package 1a except processing mode is interactive and uses PL1(S).

Resources Used, Availability

same as package 1a.

History of Package

developed in-house; implemented 7/71; last change 1/74.

Comments

have timing problems between General Accounting Office and Grants/Contracts Office in getting data prepared and on file.

The prime benefit of this sub-system is the production of grant and contract financial information on a grant/contract year basis as well as a fiscal basis. The availability of this information on a grant/contract basis benefits both the Grant/Contract Office and the principal investigators to the extent that more meaningful financial reports are available. These reports enable more accurate control of expenditures and the budgeting of grants/contracts on a fiscal basis.

SOFTWARE PACKAGE SUMMARY-1c

1c. Commitment & Effort Reporting Sub-System III,,,subsystem of Grants & Contracts Accounting System

Description

time & effort reporting, cost control, fiscal reporting, expenditure & budget analysis, payroll, has on-line inquiry & update of commitment file; also used for non-Federally sponsored research.

Reports Generated

list effort file; commitment file; print effort forms.

Other Traits

same as package 1a except processing mode is interactive.

Resources Used

same as package 1a except uses 2 tape drives, 75 cyl. on disc.

History of Package

developed in-house; implemented 7/71; last change 1/72.

Availability

same as package 1a.

Comments

greatest problem with developing the concept and logic for projecting the salary commitment to grant termination.

The purpose of this subsystem is to provide the means of creating and maintaining salary and staff benefit commitments, and to automate and expand the application of the present effort reporting procedures.

SOFTWARE PACKAGE SUMMARY-1d

1d. Overhead Sub-System IV,,,subsystem of Grants & Contracts Accounting System

Description

handles fiscal reporting, cost control; also used for non-Fed. spons. res.

Reports Generated

list of charges generated

Other Traits

same as package 1a except security protection in all [4] but terminal and operating system.

Resources Used

IBM 370/168, OS/MVT HASP(S) operating system; OS(S) dbms; 100K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 50 cyl.; I/O devices: card reader, printer, card punch.

56. UNIVERSITY OF CINCINNATI

History of Package

developed in-house; implemented 10/71.

Availability

same as package 1a.

Comments

greatest problem with generating the overhead charges automatically and to interface them directly into the General Accounting System.

This sub-system changes the present method of accounting for overhead charge.

SOFTWARE PACKAGE SUMMARY-1e

1e. Expenditure Reporting Sub-System V,,, subsystem of Grants & Contracts Acctg Sys.

Description

handles expenditure & budget analysis; also used for non-Fed. spons. res.

Reports Generated

expenditure report.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses PL1 Level F(S); security protection in all [4] but terminal & op sys.

Resources Used

IBM 370/168, OS/MVT HASP(S) operating system; OS(S) dbms; 125K bytes high speed storage; tapes: 3 drives, 9 tracks, 800 bpi; discs: 60 cyl.; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 10/71.

Availability

User Manual limited available; for further information call same as package 1a.

Comments

This sub-system reduces much of the manual effort now put forth by Grants/Contracts Office personnel in the preparation of expenditure reports.

57. UNIVERSITY OF DAYTON

University of Dayton (FICE 003127)

(small, Roman Catholic, single institution)

300 College Park Avenue

Dayton, Ohio 45469

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Director, Research Institute; decentralized from but within administrative structure of institution; for further information call John U. Weckesser, Assistant to Director, 513/229-3947.

Administration Parameters for Contracts and Grants (FY74)

216 contracts and grants for r&d, training for the amount \$6.3M (expended) from 157 Federal agencies; 145 FTE professional staff, 139 FTE technicians; fields of research include all [1].

Computer Usage Profile

UNIVAC Spectra 70/7, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll (GB); planning and budgeting-historical and current expenditure analysis (RB).

HAS NOT AUTOMATED: financial accounting-cash receipts, cash disbursements, accounts receivable, fiscal reporting, property; planning and budgeting-forecasting; equipment and specialized research facilities-inventory, security; procurement; space; library support; contract/grant information system.

Comments

Greatest problem is lack of funds in Computing Budget for additional programmers for financial reporting areas of University.

58. OKLAHOMA STATE UNIVERSITY MAIN CAMPUS

Oklahoma State University Main Campus (FICE 003170)
(medium, State, main campus of multi campus institution)
Stillwater, Oklahoma 74074

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Research Foundation, 301 Whitehurst Hall; decentralized from but within administrative structure of institution; for further information call Marvin T. Edmison, Dir., 405/372-6211, x 6104.

Administration Parameters for Contracts and Grants (FY74)

60 contracts and grants for r&d, training for the amount \$865K (expended) from 10 Federal agencies; 13 FTE professional staff, 10 FTE technicians; fields of research include all [1] but mathematics and psychology.

Computer Usage Profile

IBM 360/65, on-grounds, shared, intrainstitutional.

Functions Administered [2]

WILL BE AUTOMATING: financial accounting-payroll, fiscal reporting; planning and budgeting-all; cost sharing-records management; HAS NOT AUTOMATED: financial accounting-cash receipts, accounts receivable, property; grant/contract information system-proposal preparation, multicampus proposal/award communication network; cost sharing-agreements.

ADMINISTRATIVE INFORMATION-2

Reporting Unit

Office of Director of Research, College of Arts & Sciences; decentralized from but within administrative structure of institution; for further information call J. Paul Devlin, Dir., 405/372-6211, x222.

Administration Parameters for Contracts and Grants (FY74)

72 contracts and grants for r&d for the amount \$550K (funded) from 3 Federal agencies; 7 FTE technicians; fields of research include environmental science, life sciences, mathematics, physical sciences, social sciences, humanities.

Computer Usage Profile

IBM 360/65, on-grounds, intrainstitutional.

Functions Administered [2]

College of Arts & Sciences HAS AUTOMATED: financial accounting-payroll, fiscal reporting; planning and budgeting; equipment-inventory; procurement-all; space-inventory.

Comments

greatest problems with software; information on grants directly useful to principal investigator.

SOFTWARE PACKAGE SUMMARY-1

1. OSU Federal Support Information Retrieval System, Grants

Description

grant/contract information system--retrieval system utilizing the Catalog of Federal Domestic Assistance as the data base.

Other Traits

processing mode is interactive; data base is non-integrated with random access; uses 360 Assembler with PL 1 support(S); security protection in data and operating system.

Resources Used

IBM 360/65, OS/MVT(S) operating system; 30K bytes high speed storage; discs: 17.4M bytes; I/O devices: teletype, communications terminal.

History of Package

developed in-house; also used by State University of New York (SUNY), Albany, N.Y., implemented 3/73.

Availability

software package available for purchase for \$300; User and Operator Manuals available; for further information call Dr. Robert Gumm, Dir., 405/372-6211, x 6441, Computer Center, OSU.

Comments

Greatest problem with availability of the data base.

SOFTWARE PACKAGE SUMMARY-2

2. Research Information Center Search System, RIC

Description

handles library support, utilizes the ERIC Data Base.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses 360 Assembler (S); security protection in data, operating system.

Resources Used

IBM 360/65, OS/MVT(S) operating system; 96K bytes high speed storage; tapes: 1 drive, 9 tracks 800/1600 bpi.

History of Package

developed out-of-house at University of North Dakota; used by others; implemented 5/73; last change 1/75.

Availability

for further information call same as package 1.

Comments

Greatest problem is obtaining updates to the data base (ERIC).

SOFTWARE PACKAGE SUMMARY-3

3. Administrative Accounting System

Description

handles fiscal administration.

Reports Generated

monthly financial statements; receipts and deposits journal; physical inventory.

Other Traits

processing mode is interactive; data base is non-integrated with sequential, random access; uses CPS PL/1(S); security protection in terminal, data, operating system.

Resources Used

IBM 360/65, OS/MVT(S) operating system; 64K bytes high speed storage; tapes: 1 drive, 9 tracks, 800/1600 bpi; discs: 1.4M bytes; I/O devices: communications terminal.

History of Package

developed in-house; implemented 7/70; last change 7/74.

Availability

software package available for purchase; for further information call Dr. Ronald Oines, Assoc. Dir. of Space Science, 405/372-5986, Research Foundation, OSU.

Oregon State University (FICE 003210)
(medium, state, member of multicampus institution)
Corvallis, Oregon 97331

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of the Vice President for Research and Graduate Studies, OSU, decentralized from and outside administrative structure of institution; for further information contact Roy A. Young, Vice President for Research and Graduate Studies, 503/754-3437.

Administration Parameters for Contracts and Grants (FY74)

210 contracts and grants for r&d, health services, training for the amount \$12.6M (expended) from 23 Federal agencies; 655 FTE professional staff, 278 FTE technicians; fields of research include engineering, environmental science, life sciences, mathematics, physical sciences, social sciences.

Computer Usage Profile

CDC 3300, on-grounds, shared, intrainstitutional; CDC CYBER 73/14, on-grounds, shared, intrainstitutional; IBM 360/40, on-grounds, shared, interinstitutional (for Oregon State System of Higher Education).

Functions Administered [2]

HAS AUTOMATED: financial accounting; equipment and facilities-inventory; procurement; space-inventory, utilization/allocation; personnel management-current activities; WILL BE AUTOMATING: planning and budgeting; indirect cost rate/fringe benefit rate; equipment and facilities-utilization/allocation, projection; internal audit; all (GB); HAS NOT AUTOMATED: grant/contract information system; cost-sharing; program management.

Comments

Greatest problem is inability to recruit quality personnel within salary structure established by State Personnel Division.

SOFTWARE PACKAGE SUMMARY-1

1. Academic Personnel System, UPDATE

Description

handles personnel management (current activities) and budgeting; also used for non-Federally sponsored research.

Reports Generated

budget worksheets, Oregon Board of Higher Education Reports; notice of appointments, statistical summaries, mailing labels, alphabetic listings, historical reports, affirmative action reports.

Other Traits

processing mode is interactive; data base is non-integrated with random access; uses FORTRAN IV(M); security protection in operating system.

Resources Used

CDC 3300, OS-3 (custom) operating system; 65K words (24 bit) high speed storage; tapes: 2 drives, 7 tracks, 556/800 bpi; discs: 10M characters; I/O devices: card reader, printer, CRT.

History of Package

developed in-house; implemented 7/69; last change 6/73.

Availability

User and Operator Manuals unavailable; Programmer Manual available; for further information call T.L. Yates, Mgr., Admin. Systems, 503/754-2494, Computer Center, OSU.

Comments

Heavily loaded hardware prevents rapid response to CRT at end of academic periods.

SOFTWARE PACKAGE SUMMARY-2

2. Library Acquisitions, LOLITA

Description

library support; also used for non-Federally sponsored research.

Reports Generated

purchase orders, vendor lists, outstanding order lists, index cards.

59. OREGON STATE UNIVERSITY

Other Traits, Comments

same as package 1

Resources Used

same as package 1 except uses 8M characters on disc; also uses teletype for I/O.

History of Package

developed in-house; implemented 7/69; last change 7/71.

Availability

all manuals unavailable; for further information call same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Financial Management System, FMS.

Description

payroll, cash receipts, cash disbursements, accounts receivable; fiscal reporting, property, budget forecasting, internal audit; also used for general administrative purposes; administrative information may be filtered down through interrogation of the accounts' coding structure; processing done on daily, monthly, quarterly and annual cycles; numbers of programs are: payroll-99; cash receipts-64; accounts receivable-75; general accounting-180; budget-85; check reconcile-31; encumbrance-46; investment-30; personnel file-130; also used for non-Federally sponsored research.

Reports Generated

transaction listings, checks and payment of contractual and payroll obligations, budget listings, personnel reports, accounting reports, and student billing notices.

Other Traits

processing mode is batch; data base is integrated, partially integrated, non-integrated with sequential, index-sequential access; uses COBOL F(S), Assembler(S); security protection in all [4].

Resources Used

IBM 360/40, DOS(S) operating system; 384K bytes high speed storage; tapes: 5 drives, 9 tracks, 1600 bpi; discs: 570M bytes on 10 units; I/O devices: card reader, printer, CRT, card punch.

History of Package

developed in-house; will be used on Honeywell 66/40 with GCOS by Fall, 1975; used by all institutions in Oregon State System of Higher Education; implemented 7/70; last change 1/75.

Availability

all manuals limited available; for further information call Richard Berger, Mgr., Systems & Programming, 503/754-1649, AdS B212-Data Services Center, OSU.

Comments

The greatest problem with our present system is the development of a generalized package that will suit the needs of the various operating philosophies of our system's users, that is, the institutions of the Oregon State Board of Higher Education. As to technical efficiency, human errors involved in implementing applications programs are much more significant than with the errors found with the current IBM 360 hardware or the DOS operating system.

Honeywell 66/40 GCOS System to be installed and made operational by Fall, 1975. Package is currently undergoing conversion to the Honeywell standards. Disk and tape storage devices will be used. A major enhancement will be the purchase of interactive terminals.

SOFTWARE PACKAGE SUMMARY-4

4. Space Inventory

Description

handles space inventory and utilization/allocation; comprised of 43 COBOL programs; also used for non-Federally sponsored research.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses COBOL F(S); security protection in all [4] but transmission.

Resources Used, Availability

same as package 3.

History of Package

59. OREGON STATE UNIVERSITY

developed in-house; available to all public and private Oregon institutions of Higher Education; implemented 7/71.

SOFTWARE PACKAGE SUMMARY-5

5. Student Financial Aid, SFA

Description

handles student assistance, comprised of 23 COBOL programs; also used for non-Federally sponsored research.

Reports Generated

maintains history of and reports all activity related to student assistance (i.e., loans and academic and athletic grants and aid).

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL F(S); security protection in data, record, field, operating system.

Resources Used, Availability

same as package 3.

History of Package

developed in-house; implemented 7/70.

60. UNIVERSITY OF OREGON MAIN CAMPUS

University of Oregon Main Campus (FICE 003223)
(medium, state, main campus of multicampus institution)
Eugene, Oregon 97403

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Scientific and Scholarly Research, Graduate School, University of Oregon Main Campus, centralized with administrative structure of institution; for further information call F. S. Wilhelm, Assistant to the Dean for Research, Graduate School, 503/686-5133.

Administration Parameters for Contracts and Grants (FY74)

400 contracts and grants for r&d, training for the amount \$16.0M (expended) from 27 Federal agencies; 346 FTE professional staff; fields of research include all [1] but engineering plus educational administration.

Computer Usage Profile

IBM 360/50, on-grounds; IBM 360/40 (until 7/1/75), interinstitutional for Oregon State System; Honeywell 6690 (after 7/1/75), interinstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-payroll, cash receipts, cash disbursements, accounts receivable; planning and budgeting-historical and current expenditure analysis; indirect cost rate/fringe benefit rate-expenditure and budget analysis (RB); equipment and specialized research facilities-inventory; space-inventory; library support-circulation; all (GB) except where noted.

Comments

Additional hardware and personnel would allow for automation in more areas of administration.

SOFTWARE PACKAGE SUMMARY-1

1. Financial Management System, FMS

Description

handles fiscal administration; research administration information filtered out by code; process cycles are daily, monthly, quarterly, and annual; numbers of programs in each functional area are: payroll-99; cash receipts-64; accounts receivable-50; general accounting-172; budget-79; check reconciliation-31; encumbrance-46; investment-30; personnel file-120; also used for non-Federally sponsored research.

Reports Generated

reports include transaction lists, checks (contractual and payroll), budget lists, personnel reports, accounting reports (ledgers, journals, etc.).

Other Traits

processing mode is batch; data base is integrated, partially integrated, non-integrated with sequential, index-sequential access; uses COBOL F(S), ASSEMBLY LANGUAGE (ALC)(S); security protection in all [4].

Resources Used

IBM 360/40, DOS(S) operating system; 384K bytes high speed storage; tapes: 5 drives, 9 tracks, 1600 bpi; discs: 57M bytes on 10 dual density units; I/O devices: card reader, printer, card punch, CRT (43 ULTRONICS 7700).

History of Package

developed in-house; implemented 7/70; last change 7/74.

Availability

all manuals limited available; for further information call Richard R. Burger, Mgr., System and Programming, 503/754-1649, OSU Campus, ADS B-212, Corvallis, Oregon 97331.

Comments

Greatest problems are human. Problems arise due to frequent turnover of personnel and in training required for new personnel. Problems also occur through the use of clerks with no accounting background. Also, user documentation maintenance and dissemination has inherent lags. Also, due to the wide range of differences in administration, operations and procedures at the various campuses, the system had to be very generalized. This causes problems in maintenance and modification of the various programs.

SOFTWARE PACKAGE SUMMARY-2

2. Physical Plant Processing, ,OP

Description

provides accounting and management tools for physical plant operations; research administration information filtered out by code; system currently consists of six programs: edit, build transaction work files, payroll-1 (weekly); cost distribution-1 (monthly); work in process, closed jobs, billing-2 (monthly and fiscal year-end); time card preparation-1 (monthly); inventory-1 (annually); will expand to provide cumulative building costs and encumbrance accounting; also used for non-Federally sponsored research.

Reports Generated

inventory, catalog, bills, transaction registers, price changes, inventory status and billing journals, year-to-date issues and receipts.

Other Traits

same as package 2; also uses RPG(S).
COBOL (S); security protection in data, record, field, operating system.

Resources Used

IBM 360/50, HASP(S) operating system; 150K bytes high speed storage; discs: 29.2M bytes; I/O devices: card reader, printer, card punch.

History of Package

developed in-house; implemented 7/73; last change 9/74.

Availability

expect manuals to be available in 1976; for further information call Harry E. Fowler, Jr., Systems Analyst, 503/686-3243, Administrative Data Processing, Oregon Hall, U. of Oregon.

Comments

Time and personnel have not been available to adequately document the system or to expand the system in concert with additional user requirements. Ideally, the system would be interactive but funds and equipment are not available.

SOFTWARE PACKAGE SUMMARY-3

3. University Printing,,OU

Description

provides accounting and management tools for university printing operation, including man-hour accounting; research administration information filtered out by code; currently consists of three programs: edit, build transaction work files, manhour accounting-1 (weekly); work in process, closed jobs, billings-2 (monthly); future expansion to include inventory and encumbrance accounting; also used for non-Federally sponsored research.

Reports Generated

work in process and closed-job reports, user billings, journals.

Other Traits, Resources Used, History of Package, Availability

same as package 2.

Comments

Time and personnel have not been available to adequately document the system, or to expand it in concert with additional user requirements.

SOFTWARE PACKAGE SUMMARY-4

4. Science Shop,,OS

Description

provides billing and journals for science shop reporting, research accounting information identified by code; also used for non-Federally sponsored research.

Reports Generated

work processed, billings, and billing journals.

Other Traits, Resources Used

same as package 2.

History of Package

developed in-house; implemented 7/73; last change 7/73.

Availability

all manuals limited available; for further information call same as package 2.

SOFTWARE PACKAGE SUMMARY-5

5. University Chemistry Store Inventory and Billing,CHEMSTOR,OC

Description

provides perpetual inventory, billings and other management and accounting tools necessary to operate the chemistry store; research account activity identifiable by code; allows for the billing of items not sold by the chemistry store; i.e., changes generated by activities other than the chemistry store; plan to change entire system to COBOL to include obligation reporting and automatic reorder; also used for non-Federally sponsored research.

Reports Generated

inventory, catalog, bills, transaction registers, price changes, inventory status and billing journals, year-to-date issues and receipts.

Other Traits

same as package 2; also uses RPG(S).

Resources Used

same as package 2.

History of Package

developed in-house; also used on IBM 360/20; implemented 7/74; last change 4/75.

Availability

same as package 4.

Comments

The use of RPG limits the useability of the system to equipment which has the capability for IBM RPj.

61. THE PENNSYLVANIA STATE UNIVERSITY

The Pennsylvania State University (FICE 006965)
(large, state, main campus of multicampus institution)
308 Old Main
University Park, Pa. 16802

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Vice President for Research; centralized with administrative structure of institution; for further information call Harry D. Zook, Asst. V.P. for Research, 814/865-6305.

Administration Parameters for Contracts and Grants (FY74)

438 contracts and grants for r&d, training for the amount \$20.8M (expended) from 27 Federal agencies; 1000 FTE professional staff, 500 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/158, on-grounds, shared, intrainstitutional; IBM 1500, on-grounds (for College of Education).

Functions Administered

HAS AUTOMATED: financial accounting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities-inventory; space-inventory; all (GB).

Comments

Designed for state reporting on a fiscal year basis. No provision for encumbering salaries.

Only our College of Education has a packaged system appropriate for inclusion. Other research units have considerable computer activity but no packaged systems suitable for implementation elsewhere.

SOFTWARE PACKAGE SUMMARY-1

1. Budget Report, BUDG,, subsystem of Coursewriter II

Description

cumulative miscellaneous funds budget reports; also used for non-Federally sponsored research.

Reports Generated

summary and detail.

Other Traits

processing mode is interactive; data base has random access; uses 1130 Assembler; security protection in operating system.

Resources Used

IBM 1500, Coursewriter II operating system; tapes: 2 drives, 7 tracks; discs: 50M bytes; I/O devices: card reader, card punch, CRT, paper tape.

History of Package

developed out-of-house at Gettig, Inc.; implemented 1/74; last change 6/74.

Availability

for further information call Dr. Terry A. Counterline, Asst. Professor, 814/865-9500, 302 Rackley Bldg., Penn. State U.

Comments

This is a utility program for budget management purposes. The small computer is essentially dedicated to interactive instruction in College of Education courses.

62. UNIVERSITY OF PENNSYLVANIA

University of Pennsylvania (FICE 003378)
(medium, independent, non-profit, single institution)
Philadelphia, Pennsylvania 19174

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research Administration, 3451 Walnut Street, Phila., Pa. 19174; centralized with administrative structure of institution; for further information call A. W. Kinny, Asst. Director, Systems, 215/2437293.

Administration Parameters for Contracts and Grants (FY74)

1100 contracts and grants for r&d, training, health services, for the amount \$60.7M (funded) from 43 Federal agencies; 400 FTE professional staff, 600 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/168, off-grounds, shared, interinstitutional, computer network named UNI-COLL.

Functions Administered [2]

HAS AUTOMATED: fiscal administration (GB); equipment and specialized research facilities-inventory (RF); grant/contract information system (RB).

SOFTWARE PACKAGE SUMMARY-1

1. Research Administration System, RAS

Description

handles grant/contract information system, equipment inventory, forecasting; also used for non-Federally sponsored research.

Reports Generated

25 monthly reports for management, administration, and file edit.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses COBOL(S), MARK IV (Informatics) (S); security protection in transmission, terminal, data.

Resources Used

IBM 370/168; OS/VS2 r.17(S); 3M bytes monolithic high speed memory; tapes: 5 drives, 9 tracks, 1600 bpi and 1 drive, 7 tracks, 800 bpi; drums: 1.4M bytes on 2305; discs: 30 drives; I/O devices: card reader, card punch, printer, CRT, and Calcomp 871 Plotter.

History of Package

developed in-house (MARK IV reporting) and out-of-house at Stanford Univ. (COBOL); also used on IBM 360/40 with DOS/OS; implemented 1/70; last change 12/74.

Availability

manuals unavailable; for further information call A. W. Kinny, Asst. Director, Systems 215/243-7293.

Comments

The report output of the Research Administration system is designed to provide a running monthly assessment of the status of proposals generated and awards received on a monthly cycle. The monthly activity is measured against historical data for previous months and years as an indication of sponsor funding and internal University activity. Overall assessments are provided to high-level University administrators. Separate reports are produced for schools and departments. Correlation of award funding with actual expenditures is accomplished by computer coordination of the Research Administration system and the section of the Financial system that contains sponsored project expenditure data. Advance notices of impending project terminations and summaries of recently terminated projects are forwarded to appropriate departments monthly. The ability to develop trends is an important input for projecting future research project activity. Special programs produce reports that analyze award data as a basis for forecasting future budget levels, such as projected indirect cost recovery.

The equipment inventory system is separately driven from periodic inventories of equipment acquired under specific grants and contracts. This system produces reports as required by the sponsors.

SOFTWARE PACKAGE SUMMARY-2

62. UNIVERSITY OF PENNSYLVANIA

2. Financial Information System, Acctg. Sys.

Description

handles fiscal administration functions; also used for non-Federally sponsored research.

Reports Generated

all financial reports for the University on a daily and monthly basis (see Comments).

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses COBOL(S), PL 1(S), MARK IV (Informatics) (S); security protection in transmission, terminal, data, operating system.

Resources Used

same as package 1.

History of Package

developed out-of-house by Information Associates, Inc.; also used on UNIVAC 1108, Burroughs 66/6700; implemented 7/73 at U. of Penn.; last change 4/75.

Availability

user manual is limited available; for further information call Richard T. Paumen, Asst. V.P., UMIS, 215/243-6300, 3451 Walnut Street, Phila., Pa. 19174.

Comments

One discrete section of the Financial system is exclusively used to record income and expense associated with sponsored projects, both private and government. Each account within this section is identified with attributes that allow for assembly or segregation of pertinent research administration financial data. This section can be computer-coordinated with the Research Administration system to select appropriate data elements from both systems for reporting and analysis. Monthly reports are sent to departments, summarizing expenditures, budget balances and transactions for the current month, year-to-date and project-to-date.

63. BROWN UNIVERSITY

Brown University (FICE 003401)

(small, independent, non-profit, single institution)

Providence, Rhode Island 02912

ADMINISTRATIVE INFORMATION

Reporting Unit

Grant and Contract Services, Box 1929, Brown U.; centralized with administrative structure of institution; for further information call Joseph A. Burnett, Director, 401/363-2777.

Administration Parameters for Contracts and Grants (FY74)

300 contracts and grants for r&d, training, health services, construction for the amount \$10.6M (funded) from 15 Federal agencies; 100 FTE professional staff, 50 FTE technicians; fields of research include all [1] but business.

Computer Usage Profile

IBM 360/30, on-grounds, shared, intrainstitutional; IBM 360/67, ongrounds, shared, intrainstitutional.

Functions Administered [2]

has automated: financial accounting-payroll, cash receipts, cash disbursements, accounts receivable, fiscal reporting, property, time and effort reporting (RB); planning and budgeting-historical and current expenditure analysis; indirect cost rate/fringe benefit rate (RB); equipment and specialized research facilities-all; space; cost sharing; all (GB) except where noted; has not automated: procurement; personnel management; library support; grant/contract information system; program management; internal audit.

Comments

Greatest problems are: (1) hardware-new and not fully developed; (2) human difficulty in understanding new system.

63. BROWN UNIVERSITY

1. Research Salaries,,PR250-PR299

developed in-house; also used on IBM 1401; implemented 3/67; last change 7/74.
Comments
Has not been re-analyzed since 1967.

SOFTWARE PACKAGE SUMMARY-5

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses AUTOCODER (S); security protection in data.

Resources Used

IBM 360/30; operating system is DOS(S) with 1401 Emulator; 12K bytes high speed storage; discs: 24M bytes on 3-2314; I/O devices: card reader, card punch, printer.

History of Package

developed in-house; also used on IBM 1401, IBM 7070; implemented 7/64; last change 7/74.

Availability

manuals unavailable; for further information call W. D. Cushman, Asst. Director, Financial Systems, 401/363-2225, Brown U.

Comments

Has not been re-analyzed since 1964.

SOFTWARE PACKAGE SUMMARY-2

2. Time and Effort,,T&E010-T&E050

Description

compares and prints time and effort.

Reports Generated

time and effort reports.

Other Traits, Availability

same as package 1.

Resources Used

IBM 360/30; DOS(S) with 1401 Emulator; 8K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 8M bytes on a 2314; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 1401; implemented 6/69; last change 7/74.

Comments

Has not been re-analyzed since 1969.

SOFTWARE PACKAGE SUMMARY-3

3. Payroll,,P02010-P02195,subsystem of Salary/Weekly Payroll

Description

produces payroll accounting

Reports Generated

normal payroll reports

Other Traits, Availability

same as package 1.

Resources Used

same as package 2 except uses 16K bytes high speed storage; also uses card punch.

History of Package

developed in-house; also used on IBM 1401; implemented 1/65; last change 5/75.

Comments

This system will be replaced in the near future with a purchased package.

SOFTWARE PACKAGE SUMMARY-4

4. Equipment Inventory,,EI010-EI060

Description

maintains inventory of equipment.

63. BROWN UNIVERSITY

Reports Generated

handles updates and by request reports.

Other Traits, Availability

same as package 1.

Resources Used

same as package 2 except uses 12K bytes of high speed storage.

History of Package

developed in-house; also used on IBM 1401; implemented 3/67; last change 7/74.

Comments

Has not been re-analyzed since 1967.

SOFTWARE PACKAGE SUMMARY-5

5. Financial Accounting System, FAS, FAS followed by 5-Character Program ID

Description

handles general ledger accounting, fiscal reporting, planning and budgeting, current expenditure analysis; other features include daily file maintenance, monthly or on demand reports, filtering of research administration data by range of account numbers; plan interfaces to financial subsystems (IMS logical relationships) as these subsystems are converted to IMS; also used for non-Federally sponsored research.

Reports Generated

revenue and expenditure reports; chart of accounts; summaries for funds and fund groups.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential, random, and IMS-HIDAM access; uses IBM ANS COBOL (PP5734-CB2)v.4, r. 1.4; security protection in record, operating system and via access through IMS which is available to administration D.P. only.

Resources Used

IBM 360/67 model J, OS/MVT(S) operating system; IMS(S) (IBM: PP 5734-xx6) dbms; 370K bytes max high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 75M bytes on 3 2314's; I/O devices: card reader, printer.

History of Package

developed commercially by Information Associates, Inc., Rochester, N.Y.; implemented 7/74; last change 6/75.

Availability

for further information on software call Hans Nef, Systems Programmer, 401/863-2225, Brown U., Box 1863; for further information on documents call Warren Cushman, Asst. Dir., ADP, 401/863-2225, Brown U., Box 1863.

SOFTWARE PACKAGE SUMMARY-6

6. Accounts Payable,,AP005-AP035

Description

produces accounts payable checks and related information.

Reports Generated

all associated with accounts payable.

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses AUTOCODER(S), ASSEMBLER(BAL)(S); security protection in data.

Resources Used

IBM 360/30; DOS(S) with 1401 Emulator; 12K bytes high speed storage; tapes: 2 drives, 9 tracks, 800 bpi; discs: 16M bytes (2-2314); I/O devices: card reader, card punch, printer.

History of Package

developed in-house; also used on IBM 1401; implemented 7/65; last change 7/74.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-7

7. Engineering Credit Cards,,ENG90-ENG95

63. BROWN UNIVERSITY

Description

prints credit cards for the Engineering Department.

Reports Generated

credit cards.

Other Traits, Availability

same as package 1 except uses Assembler (BAL)(S).

Resources Used

IBM 360/30; DOS(S) operating system; 64K bytes high speed storage; discs: 16M bytes on a 2314; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 1/72; last change 1/74.

64. VANDERBILT UNIVERSITY

Vanderbilt University (FICE 003535)

(small, independent, non-profit, single institution)

21st and Garland Avenue

Nashville, Tennessee 37240

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Division of Sponsored Research/Fiscal Planning Office, 416 A Kirkland Hall; decentralized from but within administrative structure of institution; for further information call Evonne Buttery, Sponsored Research or P. Lawrence Hester, Assoc. Director, Fiscal Planning, 615/322-2491.

Administration Parameters for Contracts and Grants (FY74)

147 contracts and grants for r&d, training, health services, construction for the amount \$10.1M (funded) from 16 Federal agencies; 300 FTE professional staff; fields of research include all [1].

Computer Usage Profile

Xerox Sigma 7, on-grounds, shared, intrainstitutional; IBM 7072/1401, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but property and time and effort reporting; planning and budgeting-historical and current expenditure analysis; space-inventory; personnel management-current activities; all (G3); WILL BE AUTOMATING: procurement (7/1/75).

Comments

The following describes the computer set-up at Vanderbilt:

There are four computer configurations involved: (1) an IBM 1401/7072 set-up used exclusively for administrative data processing; (2) the same 1401 interfaced with a Xerox Sigma 7, this joint set-up being used exclusively for administrative data processing; (3) the Xerox Sigma 7 itself (located in our joint Computer Center) which is used for research, instruction, and as part of the administrative component; and (4) an IBM 360/40 which is located in the Medical Center and used basically for patient records and patient billings. The Medical Center Sponsored Research Office has apparently been able to put one or two very small programs on the 360/40. It is not generally available for any use other than those of the

Hospital.

SOFTWARE PACKAGE SUMMARY-1

1. Data Management System, EDMS

Description

handles all data systems; other features are query capability and special data reports; also used for non-Federally sponsored research.

Reports Generated

general ledger; trial balances; status reports, budget work and final reports; cost reports and special encumbrance.

Other Traits

processing mode is interactive; data base is integrated with random access; uses COBOL A and S(S); security protection in all [4] but transmission.

Resources Used

Xerox Sigma 7; CP-V(M) operating system; Extended Data Management System (S) dbms; 128K words (32 bits/word) high speed storage; tapes: 4 drives, 9 tracks, 800 bpi; drums: 14M bytes (8 bits/byte); discs: 400M bytes; I/O devices: card reader, card punch, printer, teletype, CRT, OPscan, and plotter.

History of Package

developed commercially by Xerox; translated to Fortran (S); also used by; Tulsa University, Tulsa, Oklahoma; University of Wyoming, Laramie, Wyoming; Texas Christian, Abilene, Texas; implemented 1/71; last change 7/74.

Comments

Greatest problem is human-learning process to use well.. Requires experienced COBOL programmer, and use of DMS to acquire facility in using same. Schooling on package not altogether sufficient.

Good system-works well.

ADMINISTRATIVE INFORMATION-2

Reporting Unit

Vanderbilt School of Medicine, Division of Biomedical Sciences, CCC-3322, Vanderbilt University Medical Center; decentralized from but within administrative structure of institution; for further information call Thomas W. Haines, Ph.D., Director, Sponsored Research and Programs, 615/322-2281.

Administration Parameters for Contracts and Grants (FY74)

98 contracts and grants for r&d, training, health services for the amount \$17.0M (funded) from 8 Federal agencies; 367 FTE professional staff; field of research is life sciences.

Computer Usage Profile

Xerox Sigma 7/IBM 1401, on-grounds, shared, intrainstitutional; IBM 360/40, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: financial management-payroll, accounts receivable, accounts payable, fiscal reporting, inventory reporting, property control, personnel control, grants and contracts accounting; space and facilities; purchasing; sponsored research programs; all (GB); WILL BE AUTOMATING: personnel management; budgeting; indirect cost; HAS NOT AUTOMATED: library support; cost sharing; internal audit.

Comments

Greatest problem is upgrading of software.

Baylor College of Medicine (FICE 004949)
(small, independent, non-profit, single institution)
Texas Medical Center
Houston, Texas 77025

ADMINISTRATIVE INFORMATION

Reporting Unit

Treasurer of the Corporation, centralized with administrative structure of institution; for further information call Alfus. O. Johnson, Treasurer, 713/790-4800.

Administration Parameters for Contracts and Grants (FY74)

525 contracts and grants for r&d for the amount \$15.6M (expended 1973-74) from 20 Federal agencies; 313 FTE professional staff; 135 technicians; fields of research include life sciences, computer sciences, environmental science.

Computer Usage Profile

Honeywell 120, on grounds, dedicated.

Functions Administered [2]

HAS AUTOMATED: fiscal administration; equipment and specialized research facilities-inventory; procurement-purchasing of supplies and equipment; all (GB); has automated research administration functions for non-Federally sponsored research.

Comments

The greatest problems are: 1) cash projection by month of grant expenditures; 2) too much clerical work; 3) no standardized set of rules governing grant expenditure.

Description

handles payroll pay and fringe benefits by code; also used for non-Federally sponsored research.

Reports Generated

The following is a short essay summarizing Baylor's method of extracting and reporting grant information. This essay explains the monitoring of money expended versus money funded.

A master file of pertinent data for each grant or contract (hereafter referred to as G or C) is maintained by the Grant and Contract section of the Treasurer's Office. Within each G or C master record, the major budget category classifications are defined by the first digit of the expense classification, i.e., 1xxx-salaries, 2xxx-fringe benefits, 3xxx-supplies, 4xxx-equipment, 8xxx-stipends and fellowships, and 9xxxoverhead.

If an individual item is to be budgeted within a major category, the expense classification for that item is defined. The actual budget dollars are booked into the General Accounting system by journal voucher entries with a general code to identify these entries as budgets. G or C expenditures are coded to a fund, general account, expense classification, department, G or C code, and detail code (employee number or inventory number). Purchase orders are encumbered against each G or C and are relieved as partial or complete payments are made.

G or C data is selected from General Accounting files. Each expenditure is matched against the G or C master by the expense classification to determine the appropriate budget to which it is to be charged.

This system does not require the coding personnel to know the budgeted categories or item budgets. Therefore they only code the approved charge. The Grant and Contract system automatically codes the expenditures to the appropriate budget category or item budget.

Each investigator gets a detailed expenditure and budget report monthly. The investigator receives this report around the 12th of the month, and includes any new encumbrances from the 1st thru the 10th of the month. A summary report is also provided, showing each budgeted category or item. Salaries are projected by multiplying current month salaries times the number of months remaining in the G or C.

SOFTWARE PACKAGE SUMMARY-1

1. General Accounting, GA

Description

handles fiscal administration by code and data files; also used for non-Federally sponsored research.

Reports Generated

school budget, grants, accounts receivable.

Other Traits

65. BAYLOR COLLEGE OF MEDICINE

processing mode is batch; uses Honeywell COBOL D(S).

Resources Used

Honeywell 120; Mode I tape Resident (S) operating system; tapes: 4 drives, 7 tracks, 556 bpi; I/O devices: card reader, card punch, printer.

History of Package

developed in-house and joint effort with Arthur Andersen & Co.; implemented 1/69.

Availability

all manuals available; for further information call Allen Rankin, Jr., Supervisor, 713/790-4806, Baylor College of Medicine.

Comments

Entry of payroll changes information to College budget program is manual and should be automated. No YTD information on individual stubs.

SOFTWARE PACKAGE SUMMARY-1a

1a. Payroll, PR,, subsystem of General Accounting (GA)

Description

handles payroll pay and fringe benefits by code; also used for non-Federally sponsored research.

Reports Generated

all payroll records.

Other Traits, Resources Used, Availability

same as package 1 (GA).

History of Package

developed in-house; joint effort with Arthur Andersen & Co.; implemented 7/68.

Comments

Greatest problems are: no monthly responsibility reporting; do not know current funds available; do not know restrictions on grants; too much manual clerical work.

SOFTWARE PACKAGE SUMMARY-1b

1b. Vivarium (Animal House), VI,, subsystem of General Accounting (GA)

Description

handles the billing to investigators for boarding and servicing of animals, by code; also used for non-Federally sponsored research.

Reports Generated

boarding histories and invoices.

Other Traits, Resources Used, Availability

same as package 1 (GA).

History of Package

developed in-house; implemented 7/73.

SOFTWARE PACKAGE SUMMARY-1c

1c. Maintenance (Work Orders), MA, subsystem of General Accounting

Description

handles billing for the Building & Maintenance Dept., by code; also used for non-Federally sponsored research.

Reports Generated

invoicing and work order analysis.

Other Traits, Resources Used, Availability

same as package 1 (GA).

History of Package

developed in-house; implemented 7/71.

66. WILLIAM MARSH RICE UNIVERSITY

William Marsh Rice University (FICE 003604)
(small, independent, non-profit, single institution)
P.O. Box 1892
Houston, Texas 77001

ADMINISTRATIVE INFORMATION

Reporting Unit

Dean, Advanced Studies & Research, William Marsh Rice University, P.O. Box 2692, Houston, Texas 77001; centralized with administrative structure of institution; for further information call L. C. Griffin, Administrative Coordinator of Sponsored Research, 713/5284141, x 587.

Administration Parameters for Contracts and Grants (FY74)

130 contracts and grants for r&d for the amount \$7.0M (funded) from 14 Federal agencies; 318 FTE professional staff, 51 FTE technicians; fields of research include all [1] plus architecture, humanities.

Computer Usage Profile

Burroughs B500, on-grounds, shared, intrainsitutional.

Functions Administered

HAS AUTOMATED: financial accounting; payroll; fiscal reporting; expenditure analysis (G&R); equipment inventory; library circulation; WILL BE AUTOMATING (FY '75-'76): property; space maintenance; all (GB); has automated research administration functions for non-Federally sponsored research.

Comments

Software development and maintenance in an ever changing definition environment represents the most significant problem. Secondary problem concerns elimination of human error in input. Impact of definition and forms changes by I.R.C., IRS Regulations, Cost Accounting Standards Board, other Federal and State agencies are significant and costly.

SOFTWARE PACKAGE SUMMARY-1

1. RCH Program Series

Description

maintains and reports on total projects accountability; interfaces general accounting for expenditure and overhead calculations; and produces timely billings on sponsored accounts; accommodates operation of multi-task projects and multi-project sponsor accounts; also used for non-Federally sponsored research.

Reports Generated

contract/grant summary; current & cumulative expenditures; overhead calculations and entries; project accounting billings; utility reporting system.

Other Traits

processing mode is batch; data base is partially integrated with sequential, random access; uses COBOL (DOD 61 subset) (S); uses data tape library security.

Resources Used

Burroughs B500; MCP II(S) operating system; tapes: 3 drives, 7 tracks 556 bpi; discs: 2.4M bytes; I/O devices: card reader, printer, teletype.

History of Package

developed in-house; implemented 1/72.

Availability

software package unavailable; User Manual, Operator Manual, and source COBOL listings are available; for further information call E. F. Nauman, CPA, Systems Accountant, 713/528-4141, x 866, P.O. Box 2666, Houston, Texas 77001.

67. TEXAS A&M UNIVERSITY

Texas A&M University (FICE 010366)
(medium, state, main campus of multicampus institution)
College Station, Texas 77843

ADMINISTRATIVE INFORMATION-1

Reporting Unit

Office of University Research, Texas A&M University; centralized with administrative structure of institution; for further information call Robert R. Berg, Director, 713/845-1811.

Administration Parameters for Contracts and Grants (FY74)

14 contracts and grants for r&d, training, health services for the amount \$1.7M (funded) from 6 Federal agencies; 274 FTE professional staff, 111 FTE technicians; fields of research include business, physical sciences, social sciences, environmental science.

Computer Usage Profile

IBM 360/65, on-grounds, shared, intrainstitutional.

Functions Administered

HAS AUTOMATED: financial accounting; space; library support (partly); internal audit (partly); all (GB); WILL BE AUTOMATING: planning and budgeting; indirect cost; equipment and facilities; procurement; personnel management; cost sharing; program management.

SOFTWARE PACKAGE SUMMARY-1a

1a. Accounting System, Accounting,, subsystem of Fiscal

Description

provides processing of university accounting data and production of monthly statements; plan to add centralized vouchering; has on-line variable program control information and flexible file design; obtains data via card reader and computer system to computer system; also used for non-Federally sponsored research.

Reports Generated

exception reports; local fund voucher checks; monthly departmental statements; project reports; etc.

Other Traits

processing mode is interactive; data base is partially integrated with sequential, index-sequential, random access; uses ANS COBOL v.2(S), OS COBOL F(S), PL 1(S); security protection in transmission, terminal, operating system.

Resources Used

IBM 370/145, VS 2.1.7(S) operating system; IMS 2/VS 2(S) dbms; 320K bytes high speed storage; tapes: 4 drives, 9 tracks, 3200 bpi; discs: a 2314 pack; I/O devices: card reader, card punch, printer, CRT.

History of Package

developed in-house; also used on IBM 360/65 with OS; also used by Tyler State College, Tyler, Texas; implemented 9/71; last change 5/75.

Availability

for further information on software package call Don Flynt, Systems Analyst, 713/845-6718, Fiscal Dept.; all manuals limited available, price upon request; for further information on documents call Bob Irby, Systems Analyst, 713/845-6718.

SOFTWARE PACKAGE SUMMARY-1b

1b. Property Inventory System, Property,, subsystem of Fiscal

Description

provides accounting system for inventory items carried as departmental equipment; also used for non-Federally sponsored research

Reports Generated

inventory by inventory number, by inventory number within an account with a new page per account, by inventory class with a new page for each class, (3 per year); special sub lists on request.

Other Traits

same as 1a except processing mode is batch and uses no PL1.

Resources Used

IBM 370/145; VS 2.1.7(S) operating system; VS2 (S) dbms; 220K bytes high speed

67. TEXAS A&M UNIVERSITY

storage: tapes: 4 drives, 9 tracks, 3200 bpi; discs: 25 cyl on 2314; I/O devices: card reader, card punch, printer.
History of Package, Availability
same as package 1a except implemented 9/69; last change 9/71.
Comments
large number of items in system result in large print volume.

SOFTWARE PACKAGE SUMMARY-2

2. Space Inventory System, SIS

Description
does room inventory by building, organizational unit inventories, selected room types by building and/or organizational units, room count of selected room types by size, and others; also used for non-Federally sponsored research.
Reports Generated
program provides accurate accountability of space in order to provide: space utilization studies, overhead rate calculations, formula calculations for maintenance funds, reports for outside agencies.
Other Traits
processing mode is interactive; data base is non-integrated with index-sequential access; uses ANS COBOL (S); security protection in program password.
Resources Used
IBM 360/65; OS MVT(M) operating system; 240K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; discs: 1.5M bytes; I/O devices: card reader, card punch, printer, CRT.
History of Package
developed in-house; implemented 7/72; last change 7/74.
Availability
all manuals unavailable; for further information call Mel Lasell, Asst. Dir., Office of Planning & Instructional Analysis, 713/345-3835, Room 006, Systems Bldg., Texas A&M U.

SOFTWARE PACKAGE SUMMARY-3

3. Acquisitions System, LBASYS

Description
library support-technical services; features real time purchase order production, online account information, weekly in process order listing; future plans are for online shelf list and voucher production and department notification; also used for non-Federally sponsored research.
Reports Generated
claim/cancel letters to dealers; summary account balances; dealer name address listing; accession listing on order listing.
Other Traits
processing mode is interactive, data base is integrated with index-sequential, random access; uses COBOL ANS C v.3(S); security protection in data, record.
Resources Used
IBM 370/145, VS2 r.1.7 w/HASP II v.4.0(S) operating system; IMS 360 v.2(S) dbms; 64K bytes high speed storage; discs: 200M bytes; I/O devices: card reader, printer, CRT, 3284 printer.
History of Package
developed in-house; implemented 4/75; last change 5/75.
Availability
software and manuals are limited available; for further information call Larry Scroggins, Programmer/Analyst, 713/345-6111.
Comments
This system is currently under development and is scheduled to begin parallel processing July 15, 1975 with full conversion slated for the beginning of the fiscal year September 1, 1975. The data base is designed to function as the kernel for a much larger, fully integrated data base for all library applications.

SOFTWARE PACKAGE SUMMARY-4

4. Library Circulation Control, LIBCIRC

67. TEXAS A&M UNIVERSITY

Description

library support-circulation services; system will soon be operating on an IBM 370/145 under IMS 360/V2.

Reports Generated

books in circulation, overdue notices, books on hold, suspended borrower list, borrower name and address, extreme overdue.

Other Traits

processing mode is interactive; data base is non-integrated with sequential, index-sequential, random access; uses COBOL ANS C v.3(S); security protection in transmission, terminal.

Resources Used

IBM 360/65, OS/MVT(M) operating system; 110K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 1.5M bytes; I/O devices: card reader, printer, IBM-1030 Data Collection System.

History of Package

developed in-house; implemented 6/65; last change 1/75.

Availability

software package and all manuals limited available; for further information call C. J. Davis, Systems Analyst, 713/845-6111.

Comments

The greatest problem is the lack of an online shelf list and borrower file. The system uses an online hold and suspended borrower file. Transactions are logged and batch merged daily into an offline circulation file.

SOFTWARE PACKAGE SUMMARY-5

5. Library Serials Record Control, LIBSER.

Description

library support-technical services; also used for non-Federally sponsored research.

Reports Generated

total information list; holdings; classification list; active titles; titles by locations; cross references.

Other Traits

processing mode is batch; data base is non-integrated with sequential access; uses COBOL F(S), COBOL ANS C v.3; security protection in data.

Resources Used

IBM 360/65; OS/MVT(M) operating system; 110K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 8/66; last change 9/74.

Availability

software package, User and Programmer Manuals limited available; for further information call same as package 4.

Comments

The LIBSER System is a batch reporting system with no provision for serials checking. While it does yield valuable public and management information it is more of a liability than an asset to the serials record department.

ADMINISTRATIVE INFORMATION-2

Reporting Unit

Texas A&M Research Foundation, College Station, Texas 77843; decentralized from and outside administrative structure of institution; for further information call Dr. J. M. Lewallen, Assoc. Director, 713/346-7731.

Administration Parameters for Contracts and Grants (FY74)

229 contracts and grants for r&d, training for the amount \$7.0M (expended) from 21 Federal agencies; 210 FTE professional staff; fields of research include all [1] plus marine science and veterinary medicine.

Computer Usage Profile

IBM 371/145, on-grounds, shared, intrainstitutional; until 9/1/75 used IBM 360/65, on-grounds, shared, intrainstitutional.

Functions Administered

has automated financial accounting (RB).

Comments

The system is not yet operational. Problems have been primarily human.

University of Texas, Austin (FICE 003656)
(large, state, main campus of multicampus institution)
Austin, Texas 78712

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of the Vice Pres. and Dean of Graduate Studies; decentralized from but within administrative structure of institution; for further information call George R. Blitch, Director of Research Management, 512/471-4363.

Administration Parameters for Contracts and Grants (FY 74)

393 contracts and grants for r&d for the amount \$27.1M (funded) from 23 Federal agencies; 1500 FTE professional staff, 800 FTE technicians; fields of research include all [1] plus public affairs, humanities.

Computer Usage Profile

IBM 370/155, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all(GB); has semi-automated: equipment & specialized research facilities-inventory; space-inventory, utilization/allocation; library support-all; WILL BE AUTOMATING: grant/contract information system-proposal and agency monitoring; HAS NOT AUTOMATED: indirect cost rate/fringe benefit rate-expenditure and budget analysis, preparation of proposal; equipment & specialized research facilities-maintenance, utilization/allocation; procurement-all; grant/contract information system-proposal preparation; cost sharing -all; program management-all; internal audit.

Comments

The single greatest problem in applying computer capability to research management is lagging administrative support. The time and cost seem to outweigh the benefits in the eyes of UT Austin administration. Obtaining funds for development of research management functions, other than purely fiscal matters, is extremely difficult.

SOFTWARE PACKAGE SUMMARY-1

1. Research Management System, Univ. of Texas at Austin

Description

grant/contract information system; will have CRT terminal display and update; also used for non-Federally sponsored research.

Reports generated

contract/grant complete report; awards; proposals; college, school or research org.; sponsors; discipline areas.

Other Traits

processing mode is batch; data base is partially integrated with sequential, random access; uses COBOL 4(S).

Resources Used

IBM 370/155, OS(S) operating system; TOTAL(S) dbms; 140K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 1.4M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 9/75.

Availability

all manuals unavailable.

Comments

Entry to the data base can be made by any of the following keys: (1) contract/grant number; (2) sponsor abbreviation; (3) discipline area.

69. THE UNIVERSITY OF TEXAS SYSTEM CANCER CENTER

The University of Texas System Cancer Center
M.D. Anderson Hospital and Tumor Institute
6723 Bertner Ave.
Houston, Texas 77025

ADMINISTRATIVE INFORMATION

Reporting Unit

Grant and Contract Processing, same address, decentralized from but within administrative structure of institution; for further information call James A. Graham, Supervisor, Grant and Contract Processing, 713/792-3055.

Administration Parameters for Contracts and Grants (FY74)

88 contracts and grants for r&d, training for the amount \$14.0M (funded) from 9 Federal agencies; fields of research include life sciences, computer sciences.

Computer Usage Profile

IBM 360/40, on-grounds, dedicated.

Functions Administered

HAS AUTOMATED: payroll; accounts receivable; accounts payable; expenditure rprts; budget planning; inventory; research library; grant/contract reporting; all (GB).

SOFTWARE PACKAGE SUMMARY-1

1. Research Medical Library Maintenance and Lists, RML, P86302/P86303/P86304/
P86308/P86309

Description

catalogs and indexes all research papers, books received by the Research Library; also used for non-Federally sponsored research.

Reports Generated

subagent order list, shelving locations, list of titles, maintenance report.

Other Traits

processing mode is batch; uses ANSI COBOL F v.3, Lev.6(S).

Resources Used

IBM 360/40; DOS r. 26.2(S) operating system; tapes: 3 drives, 9 tracks, 1600 bpi; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 11/72.

Availability

User and Operator Manuals limited available.

SOFTWARE PACKAGE SUMMARY-2

2. Payroll, Personnel and Budget, Payroll

Description

maintains all data pertaining to an employee in one master record; also used for non-Federally sponsored research.

Reports Generated

payroll; leave, personnel, budget reports; manpower analysis by department, title, salary, sex, race, FICA, UCI; WCI reports; earnings statements; W-2's.

Other Traits

processing mode is batch; data base has index-sequential access; uses ALC F v.3 Lev.10(S), ANSI COBOL F v.3 Lev 6(S).

Resources Used

IBM 360/40, DOS r. 26.2(S) operating system; ISAM(S) dbms; 200 cyl. high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 28M bytes; I/O devices: card reader, card punch, printer, CTR.

History of Package

developed in-house; implemented 3/71; last change 2/75.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. General Accounting, G/A

69. THE UNIVERSITY OF TEXAS SYSTEM CANCER CENTER

Description

maintains inter-related files to combine purchases, payments, receipts, grants and contracts into a viable financial report; also used for non-Fed. spons. res.

Reports Generated

financial report, expenditure reports, checks, grant reports, NIH cash reconciliation report.

Other Traits

processing mode is batch; data base has index-sequential access; uses COBOL D(S), ANSI COBOL F v.3 Lev.6(S).

Resources Used

same as package 2 except uses 100 cyl. high speed storage, 1 tape drive.

History of Package

developed in-house; implemented 8/70; last change 1/75.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Central Stores,,,subsystem of Stores

Description

maintains a perpetual inventory of all items stocked and generates reports showing usage by type; also used for non-Federally sponsored research.

Reports Generated

items received, items disbursed, emergency order report, inventory and trial balance reports.

Other Traits

processing mode is batch; data base has index-sequential access; uses ANSI COBOL F v.3 Lev.6(S).

Resources Used

IBM 360/40; DOS r. 26.2(S) operating system; ISAM(S) dbms; 100 cyl. high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 14M bytes I/O devices: card reader, card punch, printer.

History of Package

developed in-house; implemented 8/68; last change 6/72.

Availability

same as package 1.

70. UNIVERSITY OF UTAH

University of Utah (FICE 003675)

(medium, state, member of institutional system)

Salt Lake City, Utah 84112

ADMINISTRATIVE INFORMATION

Reporting Unit

Vice Pres. for Research, 304 Park Building, University of Utah; decentralized from and outside the administrative structure of institution; for further information call Ronald J. Pugmire, Asst. V.P. for Research.

Administration Parameters for Contracts and Grants (FY74)

contracts and grants for r&d, training, health services, for the amount \$38.3M (funded) from 21 Federal agencies; 2700 FTE professional staff; fields of research include all [1].

Computer Usage Profile

IBM 370/135, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but accounts receivable; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; procurement-all; space-all; library support-circulation services; all (GB). WILL BE AUTOMATING: grant/contract information system-proposal and agency monitoring (6/75); HAS NOT AUTOMATED: library support-technical services; has automated research administration functions for non-Federally sponsored research.

Comments

does not have the required manpower to complete Software Package Summaries.

71. UNIVERSITY OF VERMONT AND STATE AGRICULTURE COLLEGE

University of Vermont and State Agriculture College (FICE 003696)
(small, state, single institution)
85 So. Prospect Street
Burlington, Vermont 05401

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Academic Program Support, University of Vermont; centralized with administrative structure of institution; for further information call Lawrence D. Copp, Staff Associate, 802/656-3360.

Administration Parameters for Contracts and Grants (FY74)

279 contracts and grants for r&d, health services, training for the amount \$12.1M (funded) from 12 Federal agencies; 600 FTE professional staff, 800 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on-grounds, shared.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all but accounts receivable and time and effort reporting; planning and budgeting-all; indirect cost rate/fringe benefit rate-expenditure and budget analysis; equipment and specialized research facilities-inventory; space-inventory, utilization/allocation; grant/contract information system-proposal preparation, proposal and agency monitoring, sponsoring agency liaison; cost sharing-all; all (GB);

WILL BE AUTOMATING: financial accounting-accounts receivable, time and effort reporting;

HAS NOT AUTOMATED: indirect cost rate/fringe benefit rate-forecasting techniques, preparation of proposal; equipment and specialized research facilities-all but inventory; procurement-all; space-maintenance; program management-all; internal audit.

has automated research administration functions for non-Federally sponsored research.

Comments

We have an excellent system. However, it is under-utilized partly because of time constraints and partly due to lack of interest by users.

Requirements for system changes to meet Federal developed systems and reporting standards are becoming cost ineffective. Most recently, the new Federal DFAS System has required an inordinate amount of time and effort to perform duplicate reconciliations by University staff of federal financial records.

SOFTWARE PACKAGE SUMMARY-1

1. Payroll,,PY

Description

handles payroll; will add time and effort reporting; also used for non-Federally sponsored research.

Reports Generated

payroll checks; salary and wage distribution; payroll register; 941 report; W-2.

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential, random access; uses COBOL F(S); security protection in operating system.

Resources Used

IBM 370/145; DOS(S) operating system; 90K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 13M bytes; I/O devices: card reader, card punch.

History of Package

developed in-house; last change 5/75.

Availability

all manuals limited available; for further information call Thomas Thomas, Dir., Univ. Comp. Service, 802/656-3316.

SOFTWARE PACKAGE SUMMARY-2

2.University of Vermont Accounting System, I/A,AC

71. UNIVERSITY OF VERMONT AND STATE AGRICULTURE COLLEGE

Description

handles financial accounting-cash receipts, fiscal reporting, property; planning and budgeting- historical and current expenditure analysis, forecasting; indirect cost rate/fringe benefit rate-expenditure and budget analysis; cost sharing-agreements, records management; also used for non-Federally sponsored research.

Reports Generated

cash receipts list, cash disbursements list, summary of account controls, open commitment list, statement of current funds, general ledger fund group summary, department association summary in whole dollars, details of expense, agriculture funds, sponsored projects funds, other restricted funds.

Other Traits

same as package 1 except data base is partially integrated.

Resources Used

IBM 370/145, DOS(S) operating system, 110K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 26M bytes; I/O devices: card reader, printer.

History of Package

developed commercially by Information Associates, Inc.; implemented 7/73; last change 5/75.

SOFTWARE PACKAGE SUMMARY-3

3. Accounts Payable,,AP

Description

handles financial accounting-accounts payable; also used for non-Federally sponsored research.

Reports Generated

checks; check register; summary of disbursements by account.

Other Traits, Availability

same as package 1.

Resources Used

same as package 1 except uses 50K bytes high speed storage, 10M bytes on disc.

History of Package

developed in-house; implemented 6/73; last change 5/75.

SOFTWARE PACKAGE SUMMARY-4

4. Equipment Inventory,,PC

Description

handles equipment inventory; also used for non-Federally sponsored research.

Reports Generated

property number; parameter driven reporting program.

Other Traits

same as package 1 except data base has only index-sequential access.

Resources Used

same as package 1 except uses 50K bytes high speed storage; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 1/74, last change 6/74.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-5

5. Space Inventory,,FC

Description

handles space inventory and space utilization/allocation; also used for non-Federally sponsored research.

Reports Generated

general room director-net assignable sq. ft.; general building director; summary of sq. footage.

Other Traits

processing mode is interactive; data base is partially integrated with OASIS indexed access; uses COBOL F(S); security protection in data, record, field.

Resources Used

IBM 370/145; DOS(S) operating system; OASIS(S) dbms; 186K bytes high speed storage; tapes: 1 drive, 9 tracks, 1600 bpi; I/O devices: card reader, printer, CRT.

History of Package

developed in-house; implemented 11/72; last change 6/75.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-6

6. Grants Information System

Description

handles planning and budgeting-forecasting; indirect cost rate/fringe benefit rate-proposal preparation; space-utilization/allocation; grant/contract-proposal preparation, proposal and agency monitoring, sponsoring agency liaison; cost sharing-agreements, records management; program management-forecasting, scheduling; will add personnel management, program management functions; also used for non-Federally sponsored research.

Reports Generated

pending applications; awarded applications; disapproved applications; special reports; all monthly; some quarterly.

Other Traits, Availability

same as package 1 except data base is not sequential.

Resources Used

same as package 5 except no tapes, no CRT.

History of Package

developed in-house; implemented 6/73; last change 6/74.

Comments

System requires substantial overhauling as new demands cannot be met under the present computer programs for the system. The University presently is developing a major personnel/payroll system as well as upgrading other major systems. Consequently, the staff of the University's Computer Center have been assigned to priority systems only. The Grants Information System, therefore, lacks the professional assistance of computer programmers to redesign the system.

University of Virginia (FICE 006968)
(medium, state, main campus of a multicampus institution)
Charlottesville, Virginia 22903

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Sponsored Programs, P.O. Box 3901, University Station, Charlottesville, Va. 22903; centralized with administrative structure of institution; for further information call Irvin A. Fisher, Director, Office of Sponsored Programs, 804/924-3735.

Administration Parameters for Contracts and Grants (FY74)

600 contracts and grants for r&d, training, health services for the amount \$22.5M (funded) from 10 Federal agencies; 1500 FTE professional staff, 600 FTE technicians; fields of research include all [1].

Computer Usage Profile

IBM 370/145, on-grounds, shared, intrainstitutional.

Functions Administered [2]

HAS AUTOMATED: financial accounting-all (GB); equipment and specialized research facilities-inventory (RF); cost sharing-records management (RF); WILL BE AUTOMATING: indirect cost rate/fringe benefit rate-expenditure and budget analysis; HAS NOT AUTOMATED: indirect cost rate/fringe benefit rate-forecasting, preparation of proposal; grant information system-proposal monitoring, sponsoring agency liaison; cost sharing-agreements.

Comments

Greatest problems are timely programming, timely reports and difficulty in obtaining interim reports.

SOFTWARE PACKAGE SUMMARY-1

1. Research Accounting System

Description

provides budgetary control for sponsored programs; also used for non-Federally sponsored research.

Reports Generated

monthly budget summary by nineteen categories; transaction detail supporting expenditure totals; "Tickler Reports" listing reporting dates; last two run on demand.

Other Traits

processing mode is batch; data base is non-integrated with sequential access, uses IBM 1401 AUTOCODER(S) (run in emulation mode).

Resources Used

IBM 370/145; OS/VS1(S) operating system; tapes: 4 drives, 9 tracks, 1600 bpi; discs: sort areas only 60 cylinders, 3330/1; I/O devices: card reader, printer.

History of Package

developed in-house; also used on IBM 1401, IBM 1460, IBM 360/40 with DOS; implemented 7/67; last change 1974.

Comments

This package has been in use for eight years. It is based on a second generation financial accounting system that has been in use for the same period. Both packages were written for second generation equipment and are now being run in emulation mode. Both packages will be superseded by a purchased Financial Accounting System to be implemented July 1, 1976.

73. VIRGINIA COMMONWEALTH UNIVERSITY

Virginia Commonwealth University
(medium, state, single institution)
910 West Franklin Street
Richmond, Virginia 23284

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Research and Graduate Affairs, Holiday Inn-Downtown, 301 West Franklin Street, Richmond, Virginia 23220; centralized with administrative structure of institution; for further information call Dr. John J. Salley, Associate Vice-President, Research and Graduate Affairs, 804/770-7985.

Administration Parameters for Contracts and Grants (FY74)

3. Local and Special Funds Expenditure Transaction Registers,,M2410 Series

Description

prints and summarizes all batches of grant-related expenditures from the payroll

Computer Usage Profile

IBM 370/145; on-grounds, shared.

Functions Administered

HAS AUTOMATED: financial accounting-payroll, accounts receivable, fiscal reporting; planning and budgeting-historical and current expenditure analysis; space-inventory, utilization/allocation; library support-all; all (GB); WILL BE AUTOMATING: personnel management (GB).

SOFTWARE PACKAGE SUMMARY-1

1. Payroll Processing,,M2310 Series

Description

faculty and classified employee payroll system; very specific to internal university codes and procedures; plan to restructure under a data base management system; also used for non-Federally sponsored research.

Reports Generated

edits; batch summaries; distribution reports; registers; control totals; others.

Other Traits

processing mode is batch; data base is partially integrated with sequential, index-sequential access; uses ANS COBOL IBM OS v.4(S), Assembler Subroutines (IBM OS) (S); security protection in data and administrative control.

Resources Used

IBM 370/145, OS/VS2 v.1.7(S) operating system; 192K bytes high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 100M bytes; I/O devices: card reader, card punch, printer, remote job entry terminal.

History of Package

developed in-house; implemented 7/72; last change 5/75.

Availability

software and all manuals unavailable; for further information call E. E. Blanks, Head, Administrative Services, 804/770-2428, VCU Computer Center, 1015 Floyd Avenue, Richmond, Va. 23220.

Comments

The greatest problem is the continuous change required by external agencies and local management; package strictly oriented to State of Virginia and University.

SOFTWARE PACKAGE SUMMARY-2

2. Local and Special Funds Accounts Payable,,M2410 Series

Description

handles accounts payable; run weekly or as required; plan to include in an integrated accounting system; also used for non-Federally sponsored research.

Reports Generated

accounts payable checks; check registers; department account code; summaries.

Other Traits

processing mode is batch; data base is partially integrated with sequential access; uses ANS COBOL IBM v.4(S); security protection in data and admin. control.

Resources Used

73. VIRGINIA COMMONWEALTH UNIVERSITY

IBM 370/145; OS/VS2 v.1.7(S) operating system; 128K bytes high speed storage; discs: 5M bytes; I/O devices: card reader, card punch, printer.

History of Package

developed in-house; implemented 1/74; last change 3/75.

Availability

software package limited available; all manuals unavailable; for further information call same as package 1.

Comments

Greatest problems are user and external agency changes; package is oriented to the University's checks, coding structure, and department account codes.

SOFTWARE PACKAGE SUMMARY-3

3. Local and Special Funds Expenditure Transaction Registers,,M2410 Series

Description

prints and summarizes all batches of grant-related expenditures from the payroll system and vouchers which have been keypunched; run daily or as required; plan to restructure and optimize under an integrated accounting system; also used for non-Federally sponsored research.

Reports Generated

expenditure transaction registers.

Other Traits, Resources Used, Availability

same as package 2 except no card punch.

History of Package

developed in-house; implemented 1/74.

Comments

package is oriented to the University's coding structure and dept. account nos.

SOFTWARE PACKAGE SUMMARY-4

4. Local and Special Funds Check Reconciliation,,M2410 Series

Description

processes all cancelled checks received from banks against the reconciliation Master File as well as voided; run semi-monthly; plan to reconstruct and optimize under an integrated accounting system; also used for non-Fed. spon. research.

Reports Generated

list of outstanding checks; list of cancelled checks; list of voided checks.

Other Traits, Availability

same as package 2.

Resources Used

IBM 370/145; OS/VS2 v.1.7(S) operating system; 128K bytes high speed storage; tapes: 3 drives, 9 tracks, 1600 bpi; discs: 25M bytes; I/O devices: card reader, printer.

History of Package

developed in-house; implemented 7/73; last change 1/74.

Availability

same as package 2.

Comments

Same as package 3. Greatest problem is human--external agency handling.

SOFTWARE PACKAGE SUMMARY-5

5. Local and Special Funds Expenditure Accounting,,M2470 Series

Description

grant expenditure accounting by department; run monthly; plans to restructure and optimize under an integrated accounting system; also used for non-Fed. spon. res.

Reports Generated

statement of expenditures.

Other Traits, Availability

same as package 2 except no security protection in data.

Resources Used

same as package 4 except uses 1 tape drive; also uses card punch.

History of Package

developed in-house; implemented 1966; last change 1/75.

Comments

Same as package 3. Greatest problems are human and software. Continuous changes required by users due to external agencies. The accounting was originally designed for EAM Operations and was converted to computer processing in 1972 as a "Tab Lift" operation.

SOFTWARE PACKAGE SUMMARY-6

6. Local and Special Funds Receipts, Disbursements, Balances; M2470 Series

Description

accounts for all revenues, expenditures, and balances by department account code; run monthly and annually; plans to restructure and optimize under an integrated accounting system; also used for non-Federally sponsored research.

Reports Generated

statement of receipts, disbursements, balances.

Other Traits, Availability

same as package 2.

Resources Used

same as package 4; also uses card punch.

History of Package, Comments

same as package 5.

SOFTWARE PACKAGE SUMMARY-7

7. Local and Special Funds Revenue Accounting,, M2470 Series

Description

handles revenue accounting, by department, of monthly and year-to-date revenues, estimated and unrealized revenues; run monthly; plan to restructure and optimize under an integrated accounting system; also used for non-Fed. spons. research.

Reports Generated

statement of realized and unrealized income.

Other Traits

same as package 2

Resources Used, History of Package, Comments

same as package 5 except uses 300K bytes on disc.

Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-8

8. HEW Grant Accounting,,M2470 Series

Description

HEW grant accounting by document number and grant number for the grant period concerned; run monthly; also used for non-Federally sponsored research.

Reports Generated

HEW grant expenditure report of allotments expenditures, and balances.

Other Traits, Availability

same as package 2 except no security protection in data.

Resources Used

same as package 4 except uses 4 tape drives.

History of Package

developed in-house; implemented 5/75.

Comments

Same as package 3. Package has just been implemented and is subject to user refinements and/or modifications.

SOFTWARE PACKAGE SUMMARY-9

9. Faculty Appropriation Budgeting, FABS, BT Series, subsystem of Commonwealth of Virginia Faculty Appropriation Budgeting System

73. VIRGINIA COMMONWEALTH UNIVERSITY

Description

establishes university budget request to State for salaries and costs and numbers of teaching and research positions; handles all State university and college requests; also used for non-Federally sponsored research.

Reports Generated

transaction edit report; guideline report.

Other Traits

processing mode is interactive; data base is integrated with sequential access; uses ANS COBOL IBM v.4(S); security protection in administrative control.

Resources Used

IBM 370/145, OS/VS2 v.1.7(S) operating system; 192K bytes high speed storage; tapes: 2 drives, 9 tracks, 1600 bpi; discs: 10M bytes; I/O devices: card reader, printer.

History of Package

developed out-of-house by State Automated Data Processing; also used on UNIVAC 1110 with EXEC 8; also used by all Virginia State Universities and community colleges; implemented 7/75.

Availability

for further information contact Director, State Div. of ADP, 8th and Broad Streets, Richmond, Va.

Comments

The programs being run by the university are those of a system developed for the State Budget Office.

SOFTWARE PACKAGE SUMMARY-10

10. Space Inventory,,3210 Series

Description

inventories physical space by standard classification codes; also used for non-Federally sponsored research.

Reports Generated

reports to Virginia State Council of Higher Education; space by each classification category.

Other Traits

processing mode is batch; data base is non-integrated with sequential, index-sequential access; uses ANS COBOL IBM v.4(S); security protection in mgmt control.

Resources Used

same as package 9 except uses 128K bytes high speed storage; also uses HASP.

History of Package

developed in-house; implemented 10/73; last change 5/75.

Availability

software and all manuals are limited available; for further information call H. Tobler, Sys. Dev. Sup., 804/770-4132, 1015 Floyd Ave., Richmond, Va. 23284.

SOFTWARE PACKAGE SUMMARY-11

11. Library Circulation,,4210 Series

Description

on-line recording of circulation transactions; daily batch analysis; produces ID cards for patrons' statistical analysis; plan to buy turnkey mini-based circulation system; also used for non-Federally sponsored research.

Reports Generated

circulation holdings; past due notices; daily hold list.

Other Traits

processing modes are interactive and batch; data base is non-integrated with sequential access; uses ANS COBOL IBM v.4(S); security protection in mgmt control.

Resources Used

same as package 1 except discs are variable, and I/O devices are card reader, card punch, Mohawk Data Collection Colorado Instrument C-Deck.

History of Package

developed in-house; implemented 8/73; last change 5/74.

Availability

same as package 1.

Comments

greatest problem is the reliability of the data collecting hardware.

University of Washington (FICE 003798)
(large, state, single institution)
Seattle, Washington 98195

ADMINISTRATIVE INFORMATION

Reporting Unit

Grant and Contract Services, 201 Administration Building AG-50, Seattle, Washington 98195; decentralized from but within administrative structure of institution; for further information call Robert H. Osterle, Assistant Director Grant and Contract Services A/C 206/543-4043.

Administration Parameters for Contracts and Grants (FY74)

1454 contracts and grants for r&d, health services, training for the amount \$61.1M (funded) from 32 Federal agencies; 1182 FTE professional staff, 1851 FTE technicians; fields of research include all [1].

Computer Usage Profile

Burroughs B-6700, on-grounds, shared.

Functions Administered

has automated: grant/contract information system-proposal and agency monitor, award monitor; both (GB).

Comments

Such problems as exist are primarily software problems--scarcity of programmers and systems people. The system in use is a relatively unsophisticated one, and the input is easily prepared by clerical personnel.

The Vice President for Research is the institutional official responsible for all matters relating to policy and administration of the externally funded research and training programs of the University. As a division of that office, Grant and Contract Services is responsible for assisting in the identification of sources of support, preparation of proposals, their final review and summarization, the negotiation and review of resulting grant and contract awards, and the maintenance of a management information system relating to proposals and awards. All financial accounting is done by the Grant and Contract Accounting Office, a part of the Office of the Vice President for Business and Finance. All of the purchasing, payroll, property accounting, and planning and budgeting functions made necessary by the presence of sponsored programs are integrated in the University's general accounting system, although identifiable as a category relating to grants and contracts. The University is, at the present time, completing an intensive reevaluation of its general accounting system, which includes grant and contract accounting, and has commenced programming a new system which, when completed, will furnish managers and administrative officers of the University a greatly expanded array of fiscal and statistical information. It is hoped that this integrated financial information system will be completed by December 31, 1975.

SOFTWARE PACKAGE SUMMARY-1

1. Grant and Contract Proposal/Award Information System

Description

grant and contract proposal and award information system; will have a subject index and indirect cost comparisons; also used for non-Federally sponsored rsrch.

Reports Generated

proposals submitted; proposals pending, proposals awarded; proposals accepted; proposals denied-by college and department and by funding agency within any defined time period since 7/1/71.

Other Traits

processing mode is batch; data base is non-integrated with sequential, random access; uses COBOL(S); security protection in operating system.

Resources Used

Burroughs B-6700, MCP II.4(S) operating system; less than 10K bytes high speed storage, tapes: 2 drives, 9 tracks, 1600 bpi; discs: 500K characters; I/O devices: card reader, card punch, printer.

History of Package

developed in-house; also used on Burroughs B-5500; also used by Washington State University, Pullman, Washington; implemented 7/71; last change 9/73.

Availability

User Manual limited available. See ADMIN. INFO. for COMMENTS.

75. UNIVERSITY OF WISCONSIN, MADISON

University of Wisconsin, Madison (FICE 003895)
(large, state, member of institutional system)
500 Lincoln Drive
Madison, Wisconsin 53706

ADMINISTRATIVE INFORMATION

Reporting Unit

Office of Coordinator of Computing Activities, University of Wisconsin, Madison;
for further information call Prof. Richard Hughes, Coordinator of Computing Activities.

SOFTWARE PACKAGE SUMMARY-1

1. Extramural Support Information System,ESIS

Description

maintains online records management file for extramural support proposals, awards, grants, contracts; plan to replace all FASTER Program code with COBOL to enhance portability between operating systems; also used for non-Federally sponsored research.

Other Traits

processing mode is batch and interactive; data base is partially integrated with index-sequential access; uses FASTER (S), COBOL (S), BAL (S); security protection in terminal, data.

Resources Used

IBM 370/158; OS/VS (S) operating system; IMS dbms; 1.0M bytes high speed storage; tapes: 2 drives, 9 tracks, 800/1600 bpi; discs: 6M bytes on 3-3333 and 5-3330; I/O devices: card reader, card punch, printer, CRT.

History of Package

developed in-house; also used on IBM IBM 370/155 with OS MVT/OS MFT, IBM 360/50, IBM 360/40; last change 5/75.

Availability

all manuals are limited available; for further information call Clark Jones, Area Mgr, 608/262-0408, 1210 W. Dayton St., Madison, Wisconsin 53705.

SOFTWARE PACKAGE SUMMARY-1a

1a. Extramural Support Data Base-Generalized Retrieval,,,subsystem of ESIS

Description

provides fast, convenient method of batch reporting from Extramural Data Base; also used for non-Federally sponsored research.

Reports Generated

selected grant, contract, proposals and award lists in a variety of sequences.

Other Traits

processing mode is batch; data base is partially integrated with index-sequential access; uses COBOL(S), BAL(S); security protection in terminal.

Resources Used

same as package 1 except uses 500K bytes high speed storage, no CRT; also uses COM for I/O.

History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-2

2. Encumbrance Terminal Input System, ETIS,,,subsystem of Accounting Control System

Description

provides on-line, real time input of personnel, supply, and capital item requisitions to encumber extramural support funds; plan to replace all FASTER program code with COBOL to enhance portability between operating systems; also used for non-Federally sponsored research.

Reports Generated

account balance, open requisitions.

Other Traits

same as package 1 except no security protection in data.

Resources Used

same as package 1 except uses 4 tape drives, 7M bytes on disc; also uses COM for I/O.

History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-3

3. Disbursing Processing Information System, DPIS

Description

provides on-line terminal entry of vendor invoice data for preparation of voucher payments; plan to replace all FASTER program code with COBOL to enhance portability between operating systems; also used for non-Federally sponsored research.

Reports Generated

voucher; remittance advice lists; cash pre-list.

Other Traits

same as package 1 except no security protection in data.

Resources Used

same as package 1 except uses 4 tape drives and 10M bytes on disc.

History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-4

4. Purchase Order Processing, POCR

Description

provides on-line entry and record retrieval of purchase orders for supplies; capital, and external personnel services; future plans are to replace all FASTER program code with COBOL to enhance portability between operating systems; also used for non-Federally sponsored research.

Reports Generated

purchase order list.

Other Traits

same as package 1 except no security protection in data.

Resources Used

same as package 1 except uses 10M bytes on disc.

History of Package, Availability

same as package 1.

SOFTWARE PACKAGE SUMMARY-5

5. Indirect Cost Studies

Description

produces appropriate audit trail and indirect cost schedules to support Federal overhead reimbursement requests; also used for non-Federally sponsored research.

Reports Generated

overhead cost schedules by type of activity and campus, division, department.

Other Traits

same as package 1a except no security protection.

Resources Used

IBM 370/158; OS/VS(S) operating system; IMS(S) dbms; 2M bytes high speed storage; tapes: 6 drives, 9 tracks, 1600/300 bpi; discs: 2.4 billion bytes on 3-3333 and 5-3330; I/O devices: card reader, card punch, printer and COM.

History of Package, Availability

same as package 1.



APPENDIX A

HIERARCHIC FUNCTION OUTLINE, INDEX A

This index lists the packages in a hierarchic function sequence similar to the Guide that accompanied the survey packet sent to the respondents (see Appendix E.9). However, based upon the package descriptions received, the ten broad functional areas found in the Guide were expanded to fifteen and the functions listed under each were altered somewhat. The final choice of broad functional areas and functions was based on the frequency of its appearance in the reported packages and/or the authors' feelings about the importance of these categories for research administration software. In addition to these changes from the original function Guide, it was decided to list the fifteen major categories in descending order of the number of packages reported under each. Within each category the functions appear in alphabetic order. The resulting Hierarchic Function Outline may be found immediately following this explanatory information and, also, interspersed appropriately in Index A. The packages are listed in Index A with the same information as appears in their reference line in the Directory Table of Contents. For an explanation of these package listings see p. 2-i in the GUIDE TO THE DIRECTORY.

Hierarchic Function Outline

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 - (1) Accounts Receivable
 - (2) Accounts Payable
 - (3) Billing
 - (4) Cash Disbursements
 - (5) Cash Receipts
 - (6) Check Reconciliation
 - (7) Computer Facility
 - (8) Cost
 - (9) Department
 - (10) Encumbrance
 - (11) Fiscal Reporting
 - (12) Funds
 - (13) Payroll
 - (14) Property
 - (15) Time and Effort Reporting
 - (16) Travel
 - (17) University Press
 - b. Planning and Budget
 - (1) Forecasting
 - (2) Historical & Current Expenditure Analysis
 - c. Indirect Cost Rate/Fringe Benefit Rate
 - (1) Expenditure & Budget Analysis
2. Proposal/Award Information System
 - a. Award Accounting
 - b. Award Monitoring
 - c. Document Control
 - d. Gifts/Grants/Program Reports
 - e. Multi-Campus Proposal Award Communication Network
 - f. Proposal and Agency Monitoring
 - g. Sponsoring Agency Liaison
 - h. Support Information
3. Space
 - a. Inventory
 - b. Maintenance
 - c. Projection
 - d. Utilization/Allocation
4. Personnel Management
 - a. Capabilities
 - b. Current Activities
 - c. Interests
 - d. Minority Reporting
 - e. Pension Valuation
 - f. Records
 - g. Reports
 - h. Statistics
5. Equipment & Specialized Research Facilities
 - a. Inventory
 - b. Maintenance
 - c. Utilization/Allocation
6. Procurement
 - a. Inventory
 - b. Purchasing of Services
 - c. Purchasing of Supplies & Equipment
 - d. Statistics
 - e. Vendors
7. Program Management
 - a. Animal Care
 - b. Cost Control
 - c. Human Subject Coordination
 - d. Management of Laboratories, Observatories, Reactors, etc.
 - e. Patent & Copyright
 - f. Planning
 - g. University/College Presses-Publication
8. Data Bases
 - a. Display
 - b. Management
9. Library Support
 - a. Circulation Services
 - b. Technical Services
10. Report Generator
 - a. Graphics
 - b. Statistics
 - c. Text Processor
11. Student Records
 - a. Assistance
12. Cost Sharing
 - a. Records Management
13. Time Sharing
 - a. Display
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14. Internal Audit
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APPENDIX B

INDEXES BY SCALE OF RESEARCH ADMINISTERED

The following four indexes list the survey respondents in order of decreasing size of four parameters used to characterize the scale of the research administered. These listings will enable the user of this Directory to thereby locate respondents in this Directory who approximate their own administrative scale of effort environment. This should be a useful factor in directing the user to software packages more applicable to his own situation. In each index, the value of the reported parameters appear in the left-hand column in descending order of size. The respondent office that supplied this parameter value is listed in the right-hand column and given the number found in the Directory Table of Contents.

B.1 Index by Funding Size in FY 74

The first scale of effort parameter is the funding size. The amount of the reported funding is given in millions of dollars (M dollars). Next to each reported amount is a parenthesis containing information on whether this money is funded (f) or expended (e) and whether it is for r&d (1), training (2), health services (3), and construction (4).

INDEX B.1

<u>M dollars</u>	<u>Respondent</u>	<u>M dollars</u>	<u>Respondent</u>
281.6 (f,1,2,3)	4.	19.3 (f,1,2,3)	3.
155.0 (e,1,2,3)	36.	19.0 (e,1,2,3)	14.
95.0 (f,1,2,3)	7.	18.6 (e,1,2,3)	2.
62.9 (e,1,2,3)	35.	18.3 (f,1,2,3)	56.
61.1 (e,1)	40.	17.9 (e,1)	26.
61.1 (f,1,2,3)	74.	17.8 (e,1)	33.
60.7 (f,1,2,3)	62.	17.0 (f,1,2,3)	64.2
57.9 (e,1,2)	42.	16.5 (e,1,2,3)	29.
52.6 (f,1)	47.	16.0 (e,1,2)	60.
49.5 (e,1,2,3)	8.	16.0 (f,1,2)	46.1
47.5 (e,1,2,3)	51.1	15.8 (f,1,2,3)	31.
45.0 (e,1,2,3)	13.	15.8 (e,1)	38.
44.7 (e,1,2,3)	5.	15.7 (e,1,2)	49.1
42.5 (f,1,2,3)	9.	15.6 (e,1)	65.
41.6 (f,1,2,3)	54.	15.5 (f,1)	20.
41.0 (f,1,2,3)	27.	14.0 (f,1,2,3)	15.
39.5 (f,1,2,3,4)	1.	14.0 (f,1,2)	69.
38.9 (e,1,2,3)	49.2	12.6 (e,1,2,3)	59.
38.3 (f,1,2,3)	70.	12.1 (f,1,2,3)	71.
37.0 (f,1,2,3,4)	17.	11.3 (f,1,2,3)	73.
35.0 (e,1)	23.	10.9 (e,1,2)	16.
34.9 (f,1,2,3)	44.	10.6 (f,1,2,3,4)	63.
32.0 (e,1,2,3)	24.	10.1 (f,1,2,3,4)	64.1
31.4 (e,1,2,3,4)	10.	10.0 (f,1,2,3)	37.
31.2 (f,1,2,3,4)	43.	9.4 (e,1)	50.
30.8 (e,1,2)	45.	8.8 (f,1)	32.
30.5 (e,1,2,4)	48.	8.2 (f,1)	18.
30.0 (e,1,2,3)	39.	8.0 (e,1,2)	12.
28.8 (e,1,2,3)	52.	8.0 (-,1)	30.
27.7 (f,1,2,3)	22.2	7.6 (f,1)	46.1
27.1 (f,1)	68.	7.3 (e,1)	19.
25.0 (f,1,2,3)	25.	7.0 (f,1)	66.
24.8 (e,1,2,3)	22.1	6.9 (e,1,2)	28.
23.6 (f,1,2)	6.	6.3 (e,1,2)	57.
23.0 (f,1)	21.	5.9 (f,1,2)	53.
22.5 (f,1,2,3)	72.	4.9 (e,1)	41.
21.2 (e,1)	55.	1.7 (f,1,2,3)	67.
20.8 (e,1,2)	61.	.865 (e,1,2)	58.1
19.6 (e,1,2)	34.	.550 (f,1)	58.2

B.2 Index by Total Size of Research Staff

The second scale of effort parameter is the size of the research staff. The reported number of full-time equivalent (FTE) professional staff has been added to the reported number of full-time equivalent (FTE) technicians to obtain the parameter value used in this index.

INDEX B.2

<u>Staff Size (FTE)</u>	<u>Respondent</u>	<u>Staff Size (FTE)</u>	<u>Respondent</u>
6891	4.	745	55.
5200	51.1	722	49.1
4466	24.	600	1.
4400	35.	600	41.
3517	36.	574	50.
3200	22.	572	18.
3033	74.	570	26.
3000	27.	550	3.
2982	13.	547	15.
2814	54.	497	40.
2700	70.	490	46.1
2300	68.	459	19.
2100	72.	448	65.
2081	17.	441	38.
2076	23.	400	14.
2015	43.	385	67.
1609	8.	369	66.
1500	47.	367	64.2
1500	48.	346	60.
1500	61.	340	12.
1400	71.	300	64.1
1360	45.	286	28.
1330	25.	284	57.
1250	52.	228	73.
1247	5.	223	34.
1241	49.2	220	56.
1100	9.	199	16.
1000	44.	177	32.
1000	62.	150	63.
975	30.	72	37.
933	59.	27.5	20.
902	42.	23	58.1
880	21.	18	39.
800	33.	7	58.2

B.3 Index by Number of Federal Agencies Awarding Grants/Contracts

The third scale of effort parameter is the number of Federal agencies awarding grants/contracts to the respondents. Although no precise definition of the term 'Federal agency' was given in the survey it appeared from the responses that the number of distinct Federal offices within large Federal agencies was the number generally given.

INDEX B.3

<u>No. of Federal Agencies</u>	<u>Respondent</u>	<u>No. of Federal Agencies</u>	<u>Respondent</u>
a11	47.	20	65.
500	4.	19	13.
157	57.	19	43.
98	5.	18	49.2
95	1.	17	18.
90	7.	17	33.
60	21.	16	3.
50	9.	16	22.2
50	17.	16	45.
50	23.	16	64.1
48	34.	15	6.
47	40.	15	19.
45	49.1	15	35.
43	62.	15	63.
40	27.	14	20.
34	37.	14	32.
32	74.	14	53.
31	55.	14	56.
30	8.	14	66.
30	16.	14	73.
30	51.1	13	44.
28	26.	12	14.
28	39.	12	52.
27	24.	12	71.
27	60.	11	31.
27	61.	10	12.
25	15.	10	41.
25	22.1	10	58.1
23	42.	10	72.
23	59.	9	69.
23	68.	8	10.
22	46.1	8	28.
21	70.	8	58.2
20	2.	7	38.
20	29.	6	25.
20	36.	6	50.
20	48.	6	67.
20	54.		

B.4 Index by Number of Grants and Contracts Awarded by Federal Agencies in FY 74

The fourth scale of effort parameter is the number of grants and contracts (awards) awarded by Federal agencies.

INDEX B.4

<u>No. of Awards</u>	<u>Respondent</u>	<u>No. of Awards</u>	<u>Respondent</u>
4874	4.	438	61.
2300	40.	400	22.1
2000	3.	400	60.
2000	7.	393	68.
2000	35.	385	22.2
1850	13.	350	1.
1700	39.	337	6.
1454	74.	325	20.
1400	29.	310	15.
1300	10.	304	28.
1300	34.	300	25.
1159	24.	300	63.
1130	26.	281	49.1
1100	62.	279	71.
1088	8.	250	12.
1000	17.	244	37.
1000	42.	242	41.
1000	49.2	232	31.
800	36.	225	21.
800	43.	216	57.
800	48.	210	59.
771	55.	200	18.
770	2.	188	32.
742	5.	188	73.
700	27.	175	14.
650	23.	164	19.
600	9.	164	50.
600	52.	147	64.1
600	72.	144	38.
558	47.	131	53.
555	54.	130	66.
546	44.	100	51.1
525	65.	88	69.
524	33.	72	58.2
513	45.	60	58.1
450	46.1	6	67.

APPENDIX C

INDEX BY COMPUTER USED

The following is an index of the package summaries by computer used. The computer headings are listed alphabetically by manufacturer. Each package is listed under the computer(s) it is or has been run on by the respondent office as well as the computer(s) it is or has been run on elsewhere, as reported by the respondent office. This means that a package may appear under more than one heading. The package summary should be read to determine the precise reason for the listing. Packages are listed according to the numbering scheme found in the Directory Table of Contents. The Directory page number for each package is entered to the right of the package number. Wherever four or more packages from one institution are contiguous in the Directory and appear in succession in this index, only the first and last such package numbers are listed, separated by three vertical dots : .

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APPENDIX D

INDEX BY LANGUAGES USED

The following is an index of the package summaries by language used. The language headings appear in alphabetical order. Under each such heading are all the packages the respondents report as using the language. A package may be listed because it is entirely in that language, is partly in that language or has been translated into that language. Reading the summary in the Directory will enable the reader to determine which of these is the case. Packages are listed according to the numbering scheme found in the Directory Table of Contents. The Directory page number for each package is entered to the right of the package number. Wherever four or more packages from one institution are contiguous in the Directory and appear in succession in this index, only the first and last such package numbers are listed, separated by three verticle dots : .

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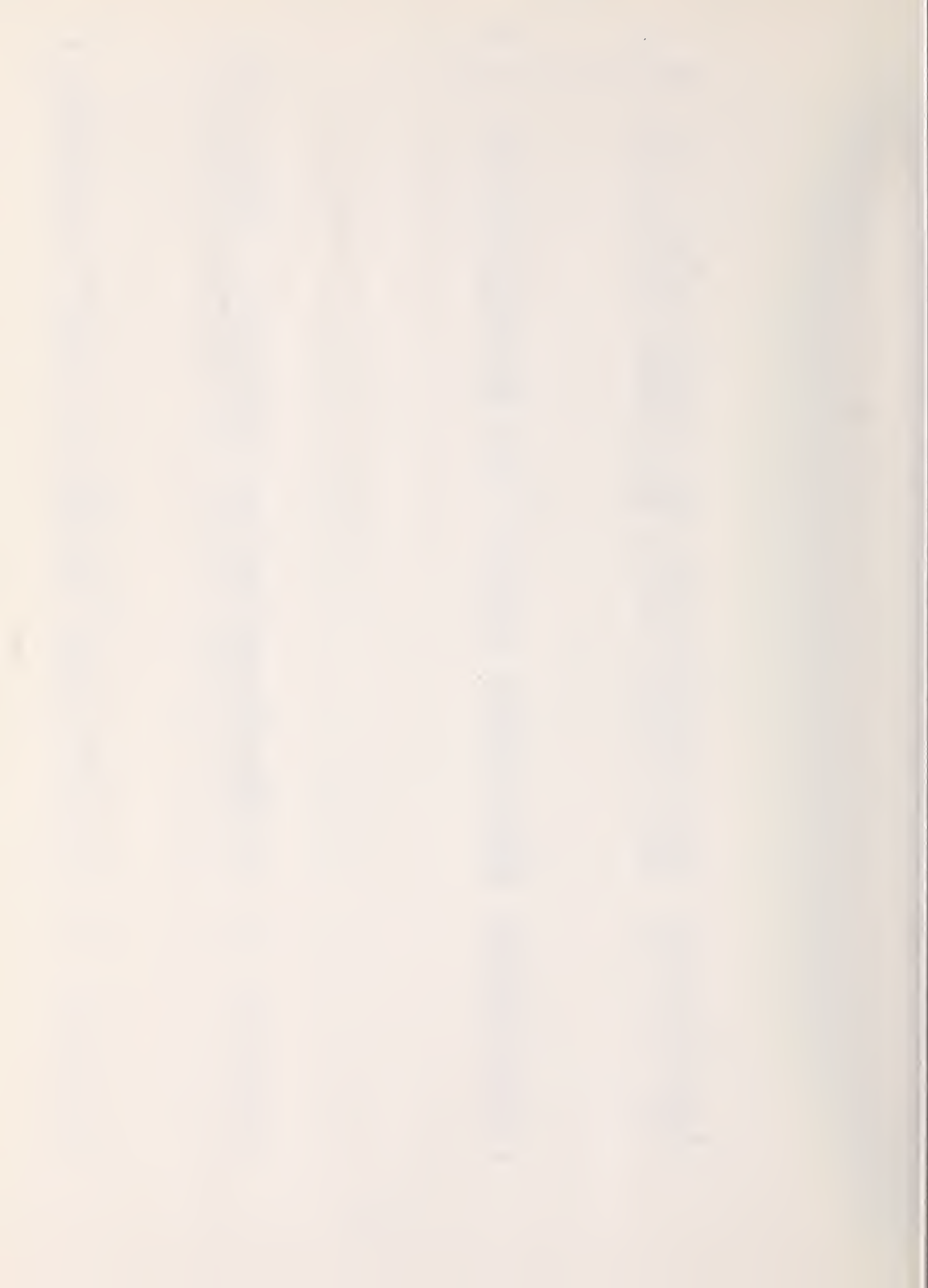
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APPENDIX E

THE SURVEY PACKET

The survey packet sent to the respondents consisted of a cover letter from Dr. Ruth M. Davis, Director of the Institute for Computer Sciences and Technology, a second letter from Dr. Thomas C. Lowe, Chief of the Systems Architecture Section of the Systems and Software Division and Project Manager, a Question and Answer Sheet that further explained the objectives of the survey, a return card, the Instructions and Definitions for Part I and II of the survey, Parts I and II of the survey, and a functional Guide. Copies of these are included in this Appendix.

The consultants who assisted us in the development of the survey questions are:

Dr. Jane G. Elchlepp, Assistant Vice-President for Health Affairs, Planning and Analysis, Duke University Medical Center

Mr. Joseph Marks, Business Administrator, Iowa State University

Dr. Roger Van Norton, Assistant Deputy Chancellor for Computer Applications, New York University

Dr. Roy F. Reeves, Director of Computer Center, Ohio State University

Mr. Joel Wasserman, Assistant Treasurer, Yale University

Dr. Elchlepp participated in the first critique of the survey instrument but was unable to do so for the second one.



UNITED STATES DEPARTMENT OF COMMERCE
National Bureau of Standards
Washington, D.C. 20234



UNITED STATES DEPARTMENT OF COMMERCE
National Bureau of Standards
Washington, D.C. 20234

Dear

The Institute for Computer Sciences and Technology at the National Bureau of Standards is presently engaged in developing a software exchange directory in the area of university research management, under the sponsorship of the Research Management Improvement Program at the National Science Foundation. In addition to the software summaries, this directory will contain a state-of-the-art discussion of the use of various automated research management systems. The objective of this effort is to enable institutions of higher education engaged in Federally sponsored research and development to exchange information on their automated management systems, and thereby to improve their management effectiveness.

We would greatly appreciate your participation in this survey. Each response will be an important contribution to the contents of the directory.

The enclosed materials explain this undertaking in more detail, and include the survey instrument.

Sincerely,

RUTH M. DAVIS, Ph.D.
Director
Institute for Computer
Sciences and Technology

Enclosures



Your institution is one of the one hundred suggested by NSF for contributing data to the directory described in the enclosed letter from Dr. Davis. Each participating institution will receive a complimentary copy of the resulting directory, which will be published by late summer of 1975.

It is hoped that the enclosed set of survey forms will be filled out by the office or offices which use computers to handle your research administration functions. If more than one office is involved, it would be desirable for each such office to fill out a separate set of survey forms. For your convenience we have enclosed a guide to possible functional areas that may be pertinent to research administration. This Guide is not intended as an all inclusive list nor is it expected that any institution handles all of the functions listed.

We would appreciate your returning the enclosed card with the name and phone number of the person or persons designated to coordinate the collection of this information. Receipt of the completed survey forms as soon as possible but no later than May 15th will help us meet our schedule.

The attached "Question and Answer Sheet" has been prepared to give detailed answers to questions you might have concerning the survey. For any additional information or forms, please contact us. We look forward to your response and anticipate that the product of this collective effort will prove useful to all university research management.

Sincerely,

THOMAS C. LOWE, Chief
Systems Architecture Section
Systems and Software Division

Enclosure



E.2 Question and Answer Sheet

QUESTION AND ANSWER SHEET

1. Who is conducting the survey?

The Institute for Computer Sciences and Technology at the National Bureau of Standards is conducting this survey under the sponsorship of the Research Management Improvement Program at the National Science Foundation.

2. What will be the end product of this survey?

The end product will be a software exchange directory in the form of an NBS Technical Note. The bulk of the directory will contain the software information from each institution with one page devoted to each package described. In addition, there will be a state-of-the-art discussion of the extent of computer support for the various research administration functions currently handled.

3. Who will benefit from this survey?

All institutions engaged in Federally sponsored research and development will benefit from this exchange of information on their computerized systems for research administration functions.

4. How was the mailing list of queried institutions obtained?

The list of institutions to be queried was specified by NSF and is contained in Table 9, entitled "Federal Obligations for Research and Development to the 100 Universities and Colleges Receiving the Largest Amounts, By Agency, FY 73," of the NSF publication, "Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, FY 73 (in process)." (See enclosure.)

5. Which office should respond at a queried institution?

The respondent office should be one which administers research and utilizes software in the process.

6. What if there is more than one appropriate respondent office at this institution?

Each such office should fill out a set of survey forms. Additional forms may be obtained by contacting NBS.

7. To whom, at a respondent office, is the survey directed?

The survey has been divided into two parts, Part I for a manager, and Part II for a computer specialist. This is a reflection of the dual nature of this subject area, stressed by a number of our consultants. Although one individual at some institutions may be the proper one to answer both parts of the survey, it is expected that the two individuals suggested will represent the more common situation.

8. How were the questions for the survey arrived at?

The enclosed survey is the result of a four-step iterative process. The first step consisted of consultation with individuals from NSF, CAUSE, WICHE, and the University of Maryland. The second step was consultation with five academic manager/administrators. The third step involved the testing of the survey instrument at six other institutions. The fourth and last step was the final joint review of the questionnaire by the NBS staff and the five consultants mentioned above. All schools consulted were chosen on the basis of their distribution along five parameters: size of student body (small, medium, large), affiliation (public, private), administrative structure (single institution, multi-campus, institutional system), size of Federal research and development funding, and geography.

9. What are the deadlines involved?

All survey forms should be returned no later than May 15th. However, information received after June 30th will not be included in the final publication scheduled for the late summer of 1975.

10. How may one obtain copies of the directory?

The National Science Foundation will be the main distributor of an initial 1500 copies. Additional copies, for distribution by NBS, for public sale and distribution by the Superintendent of Documents, will be printed by the Government Printing Office.

E.3 Respondent List

TABLE B-11 FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY, FY 1973
(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USOA	AEC	COM	ODD	OEO	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
TOTAL, ALL INSTITUTIONS		1,970,471	93,837	45,033	24,859	232,798	5,723	19,502	903,918	22,210	102,576	344,526	15,230	14,324
TOTAL, 100 INSTITUTIONS		1,592,119	57,609	77,133	14,924	206,133	2,337	11,744	746,620	12,977	47,862	326,902	12,134	11,384
1	MASS INST OF TECH	113,764	0	6,793	747	63,944	0	291	10,877	494	13,931	15,650	361	95
2	UNIV OF CAL SAN DIEGO	44,593	0	1,591	0	11,533	0	20	12,613	15	2,643	20,237	4	0
3	STANFORD UNIV	46,237	0	713	0	7,062	0	212	22,316	104	3,744	11,425	142	438
4	HARVARD UNIV	45,694	105	1,542	0	2,210	353	234	27,978	0	4,733	3,213	60	263
5	UNIV OF WASHINGTON	44,659	113	2,193	1,573	2,349	0	426	26,625	75	673	13,569	17	0
6	UNIV OF WIS-MADISON	43,882	2,360	2,451	1,537	2,301	0	706	23,569	221	2,775	6,714	0	741
7	UNIV OF CAL LOS ANGELES	43,570	0	4,545	0	3,622	327	110	20,543	0	1,440	5,694	230	18
8	UNIV OF CAL BERKELEY	41,371	739	607	2,083	5,177	0	39	14,014	339	4,115	11,129	14	51
9	COLUMBIA UNIV	41,206	0	1,840	84	4,039	0	37	20,246	0	2,264	11,727	0	915
10	UNIV OF MICHIGAN	36,912	33	2,133	1,301	5,140	0	511	16,476	51	1,812	6,756	1,381	718
11	JOHNS HOPKINS UNIV	35,127	0	914	10	1,596	0	52	27,107	23	1,444	3,768	0	216
12	UNIV OF MINNESOTA	32,255	2,145	1,533	4	1,136	147	555	20,453	275	2,345	3,340	0	215
13	CORNELL UNIV	31,360	2,336	1,354	199	2,140	0	270	12,243	304	1,541	13,197	53	669
14	UNIV OF CHICAGO	30,954	0	3,653	49	522	0	10	16,252	0	2,303	3,125	0	0
15	YALE UNIV	30,030	0	2,777	0	1,497	0	0	20,657	16	271	4,576	0	244
16	UNIV OF PENNSYLVANIA	29,430	0	1,465	11	1,470	0	140	19,651	14	171	5,981	94	403
17	UNIV OF ILLINOIS-URBANA	24,046	2,271	1,235	0	4,681	0	173	4,734	249	797	13,162	1,515	269
18	N.Y. UNIV	24,932	0	2,020	0	1,914	0	109	17,551	167	713	2,414	0	23
19	WASHINGTON UNIV	22,739	0	2,865	5	642	0	5	14,567	0	547	2,433	84	89
20	OHIO STATE UNIV	22,429	2,445	415	35	2,266	0	449	11,591	371	431	2,949	663	734
21	UNIV OF SOUTHERN CAL	22,650	0	93	551	4,721	754	1	12,947	26	335	2,164	130	278
22	UNIV OF CAL SAN FRANCISCO	21,734	0	874	0	523	0	0	19,794	0	123	460	0	0
23	UNIV OF COLORADO	21,723	16	761	919	647	0	5	11,300	173	2,691	4,630	64	76
24	DUKE UNIV	19,717	0	877	0	479	0	122	15,431	15	101	1,722	0	0
25	UNIV OF ROCHESTER	13,953	0	4,117	0	842	0	0	10,741	0	109	1,006	0	36
26	Y-SHIVA UNIV	14,641	0	59	0	331	0	0	17,439	0	75	737	0	0
27	CAL INST OF TECH	14,411	0	2,223	140	1,596	0	105	5,125	131	3,283	5,634	177	0
28	PURDUE UNIV	17,756	2,154	904	22	1,731	13	89	3,831	234	2,900	5,302	40	484
29	UNIV OF MIAMI	17,552	0	240	1,081	2,212	0	242	8,030	157	240	5,079	230	6
30	UNIV OF TEXAS AT AUSTIN	16,347	58	1,134	0	6,237	77	125	3,152	0	1,172	4,078	0	270
31	UNIV OF CAL DAVIS	15,568	1,402	1,516	0	343	0	71	9,952	324	259	2,797	0	0
32	UNIV OF UTAH	15,552	0	1,369	7	1,467	13	112	9,770	432	701	1,552	200	0
33	UNIV OF PITTSBURGH	15,563	0	454	0	466	0	147	11,033	163	535	2,353	46	138
34	PENNSYLVANIA STATE UNIV	15,566	2,503	149	103	1,249	0	425	6,114	1,480	791	2,552	95	68
35	UNIV OF N.C. AT CHAP HILL	14,907	0	361	377	624	0	133	11,346	0	0	2,026	0	0
36	YALOW COL OF MEDICINE	14,573	0	0	0	0	0	25	14,035	0	445	98	0	0
37	UNIV OF IOWA	14,127	11	100	0	377	0	0	9,243	68	3,381	847	0	0
38	CASE WESTERN RESERVE UNIV	13,813	0	767	0	1,314	0	118	8,345	0	266	2,959	0	0
39	NORTHWESTERN UNIV	14,719	0	319	0	554	0	0	9,405	0	106	1,335	0	0
40	UNIV OF HAWAII	13,566	698	595	1,520	1,563	0	84	3,573	183	1,493	1,792	0	0
41	WOODS HOLE OCEAN INST	12,347	0	505	303	5,859	0	234	127	0	0	3,959	0	0
42	PRINCETON UNIV	12,401	0	1,405	0	2,014	0	103	2,120	0	2,201	4,743	0	205
43	MICHIGAN STATE UNIV	12,752	2,177	1,444	0	201	0	276	4,114	124	362	3,294	0	756
44	UNIV OF FLORIDA	12,664	1,652	345	317	1,596	0	369	5,674	214	335	2,068	47	4
45	UNIV OF MD COLLEGE PARK	12,604	1,232	2,155	227	1,661	113	0	524	141	2,170	4,305	0	29
46	U OF ALA IN BIRMINGHAM	12,494	0	0	0	141	0	205	11,837	11	21	239	0	0
47	COLORADO STATE UNIV	11,338	1,364	314	153	413	0	233	2,214	740	535	5,313	0	650
48	UNIV OF ARIZONA	11,635	1,131	146	35	1,370	0	352	4,014	358	1,632	2,597	0	0
49	OREGON STATE UNIV	11,444	1,533	347	1,494	1,073	0	242	1,503	197	575	5,559	0	537
50	TEXAS A & M UNIV	11,234	3,239	277	1,672	131	0	140	734	240	724	2,761	1,734	12
51	ROCKEFELLER UNIV	10,441	0	242	0	109	0	0	9,694	0	0	906	0	0
52	VANDERBILT UNIV	10,566	0	83	0	16	0	69	9,215	0	123	1,064	0	0
53	TEMPLE UNIV	9,932	0	123	0	46	0	0	9,557	0	39	156	61	0
54	UNIV OF ALASKA	9,777	519	159	303	2,956	0	212	824	328	802	3,599	78	0
55	BOSTON UNIV	9,557	0	0	0	347	0	0	7,911	0	124	460	711	0
56	UNIV OF MISSOURI COLUMBIA	9,396	2,377	0	5	1,121	0	351	4,524	238	170	456	0	50
57	UNIV OF KANSAS	9,777	0	45	0	91	0	95	6,430	0	1,154	918	0	0
58	EMORY UNIV	9,332	0	95	0	130	0	0	7,900	0	156	101	0	0
59	UNIV OF VIRGINIA	9,296	0	957	33	601	0	17	4,524	0	462	1,732	0	0
60	U TEX-ANDRSON HOSPITAL	8,242	0	24	0	0	0	0	8,025	0	1	45	0	0
61	SUNY ST U BUFFALO	7,991	0	110	0	134	0	53	6,366	57	207	1,669	0	11
62	GEORGE WASHINGTON UNIV	7,929	0	24	0	1,694	0	0	5,230	0	753	144	70	0
63	RUTGERS UNIVERSITY	7,559	1,045	35	0	324	0	44	3,315	264	33	2,518	0	0
64	U TEX HLT SC CTR DALLAS	7,574	0	20	0	626	0	0	6,733	0	83	137	0	0
65	SUNY MT SINAI SCH OF MED	7,345	30	32	0	67	0	42	7,137	0	1	37	0	0
66	TULANE UNIV	7,334	0	0	0	90	0	28	6,731	0	42	374	0	0
67	ARIZONA UNIV	7,123	0	511	0	435	0	0	2,354	0	233	1,335	0	0
68	N.C. STATE UNIV AT RALEIGH	7,233	3,077	162	0	360	0	229	1,714	319	147	542	39	480
69	UNIV OF GEORGIA	7,210	2,237	491	44	236	0	174	2,217	145	204	946	0	0

TABLE B-II FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT TO THE 100 UNIVERSITIES AND COLLEGES RECEIVING THE LARGEST AMOUNTS, BY AGENCY, FY 1973
(DOLLARS IN THOUSANDS)

RANK	INSTITUTION (RANKED BY AMOUNT RECEIVED)	TOTAL	USOA	AEC	COM	DOJ	DOE	EPA	HEW	INT	NASA	NSF	DOT	OTHER*
70	NEW MEXICO STATE UNIV	7,198	919	0	0	3,763	0	0	436	297	1,714	196	13	0
71	UNIV OF CONNECTICUT	7,005	510	176	10	396	0	0	4,359	99	61	1,395	0	0
72	CARNEGIE MELLON UNIV	7,004	0	1,532	0	1,737	0	110	421	0	163	2,556	0	74
73	UNIV OF OREGON - EUGENE	6,679	0	145	0	152	179	0	4,405	0	173	1,729	0	0
74	UTAH STATE UNIV	6,599	1,036	46	14	1,752	0	299	219	949	13	1,906	127	352
75	INDIANA UNIV-BLOOMINGTON	6,445	0	220	0	330	0	0	2,325	0	221	2,765	580	4
76	UNIV OF TENN KNOXVILLE	6,434	2,165	1,251	34	403	0	0	931	0	546	1,050	164	0
77	GEORGIA INST OF TECH	6,174	20	176	55	2,916	0	137	1,179	190	423	1,051	11	0
78	UNIV OF CINCINNATI	6,169	0	190	0	754	0	169	4,641	0	107	374	0	0
79	UNIV OF KENTUCKY	6,164	2,849	0	25	269	0	46	1,759	319	124	151	543	3
80	SYRACUSE UNIV	5,973	10	144	6	2,750	0	0	1,451	159	37	1,199	90	0
81	SUNY ST U STONY BROOK	5,933	0	133	0	109	0	0	1,420	0	439	1,533	0	0
82	UNIV-MASS AMHERST CAMPUS	5,791	999	245	26	316	0	51	1,536	334	197	2,050	0	17
83	UNIV OF MD, BALTIMORE	5,757	0	0	0	1,244	0	0	4,379	0	34	96	0	0
84	UNIV OF VERMONT	5,603	690	19	0	11	0	3	1,842	79	44	67	445	0
85	TJFIS UNIV	5,544	0	323	15	200	0	0	4,614	0	34	302	47	9
86	VIRGINIA POLYTECHNIC INSI	5,479	2,096	44	0	329	0	34	950	198	576	1,139	123	0
87	ILLINOIS INST OF TECH	5,461	0	137	0	225	0	0	3,993	0	0	1,046	0	0
88	VA COMMONWEALTH UNIV	5,372	0	49	0	196	0	0	5,069	0	15	43	0	0
89	FLORIDA STATE UNIV	5,309	0	1,060	25	493	0	126	1,331	50	161	1,944	0	150
90	UNIV OF NEW MEXICO	5,211	12	0	0	1,765	42	13	2,360	0	263	513	97	146
91	IOWA ST U OF SCIENCES&TECH	5,190	2,149	21	0	55	0	120	1,239	431	16	919	175	45
92	LA ST UNIV BATON ROUGE	5,135	1,659	112	442	861	0	175	335	273	190	716	0	3
93	RICE UNIV	5,044	0	669	0	279	0	564	694	0	921	1,656	0	271
94	OKLAHOMA STATE UNIV	4,901	1,611	15	0	1,276	0	37	743	198	14	912	0	42
95	INDIANA UNIV-INDIANAPOLIS	4,979	16	0	0	0	0	0	4,758	0	0	95	0	0
96	UNIV OF CAL IRVINE	4,965	0	655	15	404	0	102	2,409	0	35	1,246	0	0
97	WAYNE STATE UNIV	4,819	0	147	0	320	0	0	3,572	0	65	423	292	0
98	GEORGETOWN UNIV	4,761	0	39	0	295	0	110	3,749	0	81	436	0	21
99	UNIV OF DAYTON	4,713	0	0	0	4,653	0	36	24	0	0	0	0	0
100	ST LOUIS UNIV	4,679	0	0	5	459	139	0	3,799	0	11	219	0	0

* INCLUDES AID, HUD, AND LAROP

SOURCE: NATIONAL SCIENCE FOUNDATION (CASE)

E.4 Return Postcard

The following official(s) has/have been assigned responsibility for coordinating the completion and return of the NBS survey forms "ADMINISTRATION/MANAGEMENT SOFTWARE SURVEY FOR FEDERALLY SPONSORED UNIVERSITY RESEARCH."

No. _____ Institution _____

Name _____ Name _____

Title _____ Title _____

Office _____ Office _____

Tel. No. () _____ Tel. No. () _____
area number ext. area number ext.

Signature of Recipient/Assigner

ADMINISTRATION/MANAGEMENT SOFTWARE SURVEY
FOR
FEDERALLY SPONSORED UNIVERSITY RESEARCH

INSTRUCTIONS AND DEFINITIONS FOR PART I

Part I should be filled out by a manager. The respondent should fill out as much as is applicable. If insufficient space has been allowed for a particular question, please append a continuation sheet. Please read instructions carefully before answering questions. For your convenience in answering question 4, a guide to a possible organization of administrative functions for research is included at the end of the instructions. Additional survey forms can be reproduced from the present copy. For additional forms and any clarification, contact:

Mrs. Zella G. Ruthberg or Mrs. Gloria R. Bolotsky
National Bureau of Standards
Building 225, Room A265
Washington, D. C. 20234
301-921-2861

(Note: The following numbering scheme follows that in Part I.)

1.a. The queried institution is one of one hundred universities and colleges listed in "Federal Support to Universities, Colleges, and Selected Non-profit Institutions, FY 73," (in process), as having the largest amounts of Federal funding for research and development (Table 9)*. The FICE code and type are those found in "Education Directory 1973-1974" by H. C. Poole, DHEW Publ. No.: (OE) 74-11404.

b. The respondent office is the location at the queried institution of an administrative unit that manages Federally sponsored research.

2.a. For the purposes of this survey, research grants and contracts refer to direct Federal funding for research and development. However, for those institutions that may find it difficult to separate this funding from training, health services, and/or construction funds, this question provides the option of including some of these other funds and indicating this fact.

b.c.d.e.f. These figures need only be approximate.

c. Use type money (funded or expended) which is easiest to estimate. If both are available, use expended amounts.

e. Professional staff includes faculty, professional research personnel, and advanced degree students assigned to research projects.

g. The following is a more detailed breakdown of the categories:

life sciences: agricultural, biological, clinical medical, health professions

* Enclosure.

physical sciences: astronomy, chemistry, physics, metallurgy

environmental science: atmospheric, earth sciences, oceanography

social sciences: economics, political science, sociology, anthropology, archaeology, urban studies.

3. Dedicated implies the computer is used exclusively by the respondent office. Shared implies the computer is shared by the respondent office with others. Commercial computer services are those available on the open market. Computer network is an interconnected complex of remote terminals containing one or more computers.

4. Fill in the four columns as follows:

Column 1: The organizational structure described should be that used for administering Federally sponsored research and development. List your broad functional areas and the functions handled within each such area. (See Guide at end of Instructions. This list is not exhaustive but probably contains more than any one school has.)

A function is a specific purpose of research administration. (See Guide for examples: i.e., 1A(1) Payroll, 9D Scheduling.) A broad functional area is a set of specific functions considered related for the accomplishment of some general purpose. (See Guide: i.e., 1A Financial Accounting, 9 Program Management.)

Column 2: Check off those functional areas and/or functions that are presently automated.

Column 3: Specify the type activity administered by this computer software. In the first subcolumn use an R or G to indicate the following:

R = The software is used for research administration only.

G = The software is used for both research and general administration.

In the second subcolumn use an F or B to indicate the following:

F = The software is used to administer Federal funds only.

B = The software is used to administer both Federal and non-Federal funds.

Column 4: Check off those functional areas and/or functions that will be computerized in the near future. Give approximate date if known.

9. The signator here is releasing this information to be published in a software directory by NBS for distribution by the National Science Foundation.

E.6 Part I of Survey

U. S. Department of Commerce
National Bureau of Standards
ADMINISTRATION/MANAGEMENT SOFTWARE SURVEY
FOR
FEDERALLY SPONSORED UNIVERSITY RESEARCH

OMB NO. 41-S75017

Approval Expires June, 1975

PART I ADMINISTRATIVE INFORMATION (See Instructions)

1. Reporting Unit

a. Institution Queried: (Name, FICE Code, Type, Address)

b. 1. Respondent Office: (Name, Address)

2. Contact: (Name, Title, Phone)

c. The administration of Federally sponsored research is, for this respondent office,

- (check one) ☐ centralized with
☐ decentralized from but within
☐ decentralized from and outside

the queried institution's academic/business administrative structure.

2. Respondent Office's Administration Parameters for Federally Sponsored Research Grants and Contracts in FY 74. (See Instructions.)

a. The Federally sponsored grants and contracts used for the rest of this question include (check all that apply)

- ☐ research and development ☐ health services
☐ training ☐ construction

b. Number of separately funded grants and contracts: _____

c. Dollar amount of grants and contracts:

\$ _____ funded (check one)
_____ expended

d. Number of Federal funding agencies for grants and contracts: _____

e. Number of full-time equivalent professional staff: _____

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f. Number of full-time equivalent technicians: _____

g. Fields of research these grants and contracts involve:
(check all that apply, see Instructions)

- ☐ business ☐ computer sciences
☐ engineering ☐ environmental science
☐ life sciences ☐ mathematics
☐ physical sciences ☐ psychology
☐ social sciences ☐ other (specify) _____

3. Computer Usage Profile

For each computer used to process your automated research administration functions for Federally funded research, give the manufacturer's name and model and check off the following profile. If a computer network is used, name it at the bottom of the table. (See Instructions.)

Computer Usage Mode	Manuf. & Model			
On-grounds				
Off-grounds				
Dedicated				
Shared				
Commercial				
Intrainstitutional				
Interinstitutional				
Computer Network				
Network Name				

2

E.7 Instruction Sheet, Part II

ADMINISTRATIVE/MANAGEMENT SOFTWARE SURVEY FOR FEDERALLY SPONSORED UNIVERSITY RESEARCH

INSTRUCTIONS AND DEFINITIONS FOR PART II

I. General Instructions

Part II should be answered by a person involved with the automation of the research management functions for this respondent office. If insufficient room has been allowed for a particular question, please append a continuation sheet.

Please describe all software used in the administration of Federally funded research. The desired software can be used solely for research administration or can be imbedded in a general administrative system. Management software used by principal investigators should be included. Software for sponsored research that is not Federally funded should also be included if you feel it would be of interest to other university research administrators.

The following definitions are given in order to guide the respondent in selecting software packages for the summaries. A guide to possible administrative functions and functional areas appears at the end of these instructions. The Guide is not exhaustive, but probably contains more than any one school has.

1. A function is a specific purpose of research administration. (See Guide for examples: i.e., 1A(1) Payroll, 9D Scheduling.)
2. A broad functional area is a set of specific functions considered related for the accomplishment of some general purpose. (See Guide: i.e., 1A Financial Accounting, 9 Program Management.)
3. A software package is a single computer program or several related or interrelated computer programs that can be executed independently. It may handle a single function belonging to one broad functional area, a set of functions belonging to one broad functional area, or a set of functions belonging to several broad functional areas. Thus, one software package may be imbedded in another software package. (Please note that the word "package" is not intended to imply that the software is necessarily a commercial product.)

There should be a separate software summary for each package at this installation. If a software package is embedded in another package and you feel it would be of value on its own merits, please describe it separately. The packages should be numbered sequentially in the space provided at the top of page 1 of the package summary. The pages for any one summary should have that package number inserted next to the page number. Additional summary forms can be reproduced from this copy. For additional copies from sender or for further clarification, contact:

Mrs. Gloria R. Bolotsky or Mrs. Zella G. Ruthberg
National Bureau of Standards
Building 225, Room A265
Washington, D. C. 20234
301-921-3861

II. Specific Instructions

(Note: The following numbering scheme follows that in Part II.)

1.b. Acronym is the short name for the package.

c. I.D. is the name the computer installation's library recognizes.

d. Outer-Level Package Name is that of the next higher level system of which this package is a component. If this package is the highest level system, then a. and d. should be the same.

2.b.(3) A Generalized Data Management System is a software package intended for a variety of applications, that facilitates operations on data, (i.e., data definitions, data storage, data maintenance, data retrieval), and the expression of logical relationships among data items. Examples of commercial systems are Mark IV, System 2000, Model 204, and ADAMS.

b.(4) This resource refers to fixed media type storage.

3.c. Features refer to any other characteristics or capabilities of the program. For example, if this program is also used for general administration functions, it would be of interest to know how the research administration information is filtered out, i.e. by code, by separate data files, by additional subroutines, etc. Frequency of use is another important feature of general interest.

e. Data base is the collection of data fundamental to the use of this package. Integrated data base is a set of commonly organized files that are accessible to all the research administration information systems used by this office.

Partially integrated data base exists if one or more files are accessible to at least two independent systems.

5. To fill in the availability table, put check marks in columns 1, 2, 3 where appropriate. If applicable, fill columns 4 and 6 with the price to the nearest ten dollars. Fill columns 5 and 7 with the "as of" date, if there is a time delay, or the date range, if there is a cut-off date. Indicate which date is quoted.

Limited availability means it is available only to selected users.

9. The signator here is releasing this information to be published in a software directory by NBS, for distribution by the National Science Foundation.

U. S. Department of Commerce
National Bureau of Standards
ADMINISTRATIVE/MANAGEMENT SOFTWARE SURVEY
FOR
FEDERALLY SPONSORED UNIVERSITY RESEARCH

OMB No. 41-S75017

Approval Expires June, 1975

PART II SOFTWARE PACKAGE SUMMARY
Package # _____

1. Package Identification

- a. Descriptive Name _____
- b. Acronym _____
- c. I.D. (if any) _____
- d. Outer-Level Package Name _____

2. Resources Used (answer a or b)

- a. The resources used are the same as described in software summary package

number _____ acronym _____

- b. The following resources are used when running this package:

(1) Mainframe (one most frequently used)

manufacturer _____ model _____

(2) Computer Operating System

name _____

(Check one) ☐ standard ☐ modified ☐ custom-made

(3) Generalized Data Management System

name _____

(Check one) ☐ standard ☐ modified ☐ custom-made

(4) High Speed Storage

amount _____ units _____

(5) Tapes

of drives _____ # of tracks _____ density _____

(6) Drums

total capacity _____ units _____

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2.b. (Cont'd.)

- (7) Discs (total capacity, units (bits, bytes, etc.))

total capacity _____ units _____

- (8) I/O Devices (check those used by this package)

☐ Card Reader ☐ Printer ☐ CRT

☐ Card Punch ☐ Teletype ☐ Other (specify) _____

- (9) Other peripherals used by this package, (such as plotter, computer output microfilm (COM)) _____

3. Characteristics of Package

- a. Purpose (state in terms of Broad Functional Areas and Functions; see Guide at end of Instructions)

- b. Reports Generated

- c. Other Features (see Instructions)

- d. Processing Mode (check one)

☐ interactive ☐ batch or remote batch

- e. Data Base Used (check all that apply)

Structure _____ Access Method _____

☐ integrated ☐ sequential
☐ partially integrated ☐ index-sequential
☐ non-integrated ☐ random
☐ other (specify) _____ other (specify) _____

3. (Cont'd.)

e. Programming Languages Used (state version or level)

Standard	Modified
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

f. Security Protection (check all that apply)

☐ transmission ☐ record ☐ other (specify) _____
☐ terminal ☐ field _____
☐ data ☐ operating system _____

g. Future Functions and/or Features Planned

h. Is this package used for managing non-Federally sponsored research as well?

☐ Yes ☐ No

4. History of Package

a. Development was:

☐ in-house
☐ out-of-house at _____
 (Fill in organization name in blank)
☐ joint effort with _____
☐ commercial by _____

b. Other programming languages it has been translated to (name and version or level)

Standard	Modified
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4. (Cont'd.)

c. Other computers it is or has been on: (manufacturer, model, and operating system)

Manufacturer	Model	Operating System
_____	_____	_____
_____	_____	_____
_____	_____	_____

d. Other organizations that have used or are using it (name, location)

Name	Location
_____	_____
_____	_____
_____	_____

e. Date of first implementation month _____ year _____

f. Date of last update or expansion month _____ year _____

5. Availability (Table need not be filled in for commercial packages; see instructions.)

Item	1 Unavail- able	2 Limited Avail- able	3 Avail- able	4 Purchase Price	5 Date	6 Lease Price	7 Date
Software Package							
User Manual							
Programmer Manual							
Operator Manual							
Other							

Software Package Contact

Name _____
 Title _____
 Phone _____
 Address _____

Documentation Contact

Name _____
 Title _____
 Phone _____
 Address _____

6. Comments:

- a. What are the greatest problems with your present system? (Human, Hardware, Software, etc.)

- b. Please include anything else you feel is pertinent.

7. Summary Date _____

8. Prepared by (name, title, phone) _____ 9. Authorized by (name, title, phone) _____

Signature

GUIDE

POSSIBLE RESEARCH ADMINISTRATIVE FUNCTIONS
ORGANIZED INTO BROAD FUNCTIONAL AREAS

1. Fiscal Administration
 - A. Financial Accounting
 - (1) Payroll
 - (2) Cash Receipts
 - (3) Cash Disbursements
 - (4) Accounts Receivable
 - (5) Fiscal Reporting
 - (6) Property
 - (7) Time and Effort Reporting
 - B. Planning and Budgeting
 - (1) Historical and Current Expenditure Analysis
 - (2) Forecasting
 - C. Indirect Cost Rate/Fringe Benefit Rate
 - (1) Expenditure and Budget Analysis
 - (2) Forecasting Techniques
 - (3) Preparation of Proposal
2. Equipment and Specialized Research Facilities
 - A. Inventory
 - B. Maintenance
 - C. Utilization/Allocation
 - D. Projection
 - E. Security
3. Procurement
 - A. Purchasing of Supplies and Equipment
 - B. Purchasing of Services
4. Space
 - A. Inventory
 - B. Maintenance
 - C. Utilization/Allocation
5. Personnel Management (technical and professional)
 - A. Current Activities
 - B. Capabilities
 - C. Interests
6. Library Support
 - A. Technical Services
 - B. Circulation Services
7. Grant/Contract Information System
 - A. Proposal Preparation
 - B. Proposal and Agency Monitoring
 - C. Multi-Campus Proposal/Award Communication Network
 - D. Sponsoring Agency Liaison
8. Cost Sharing
 - A. Agreements
 - B. Records Management
9. Program Management
 - A. Cost Control
 - B. Man Loading
 - C. Forecasting
 - D. Scheduling
 - E. Management of Laboratories, Observatories, Nuclear Reactors, etc.
 - F. University/College Presses - Publication
10. Internal Audit

APPENDIX F

The return form below is a critique for the user to send to the authors. Since this type of Directory has never been attempted before it would be useful for future projects of this nature to obtain the reaction of the user to this document. Please make a copy of the form so as not to destroy it for other readers of this copy and send to:

Mrs. Zella G. Ruthberg
Systems Architecture Section
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Thank you.

CRITIQUE OF "SOFTWARE EXCHANGE DIRECTORY FOR UNIVERSITY RESEARCH ADMINISTRATION"

(check all that apply to your situation)

1. I have found this Directory useful to my work: ☐ Yes ☐ No
2. My work is of the following type:
☐ Administrative ☐ Computer Oriented ☐ Both ☐ Other _____
3. The areas I used in the Administrative Information entry were:
☐ Reporting Unit ☐ Administration Parameters ☐ Computer Usage Profile
4. The areas I used in the Package Summary entries were:
☐ Description ☐ Reports Generated ☐ Other Traits ☐ Resources Used
☐ History of Package ☐ Availability ☐ Comments
5. The Indexes of most use were:
☐ INDEX A ☐ INDEX B.1 ☐ INDEX B.2 ☐ INDEX B.3
☐ INDEX B.4 ☐ INDEX C ☐ INDEX D
6. I am using this Directory for:
☐ General Information ☐ Design of Systems ☐ Transfer of Systems
7. I would like to make the following comments about:
☐ The Guide to the Directory ☐ The Software Exchange Directory
☐ The Indexes ☐ The Survey

Comments:

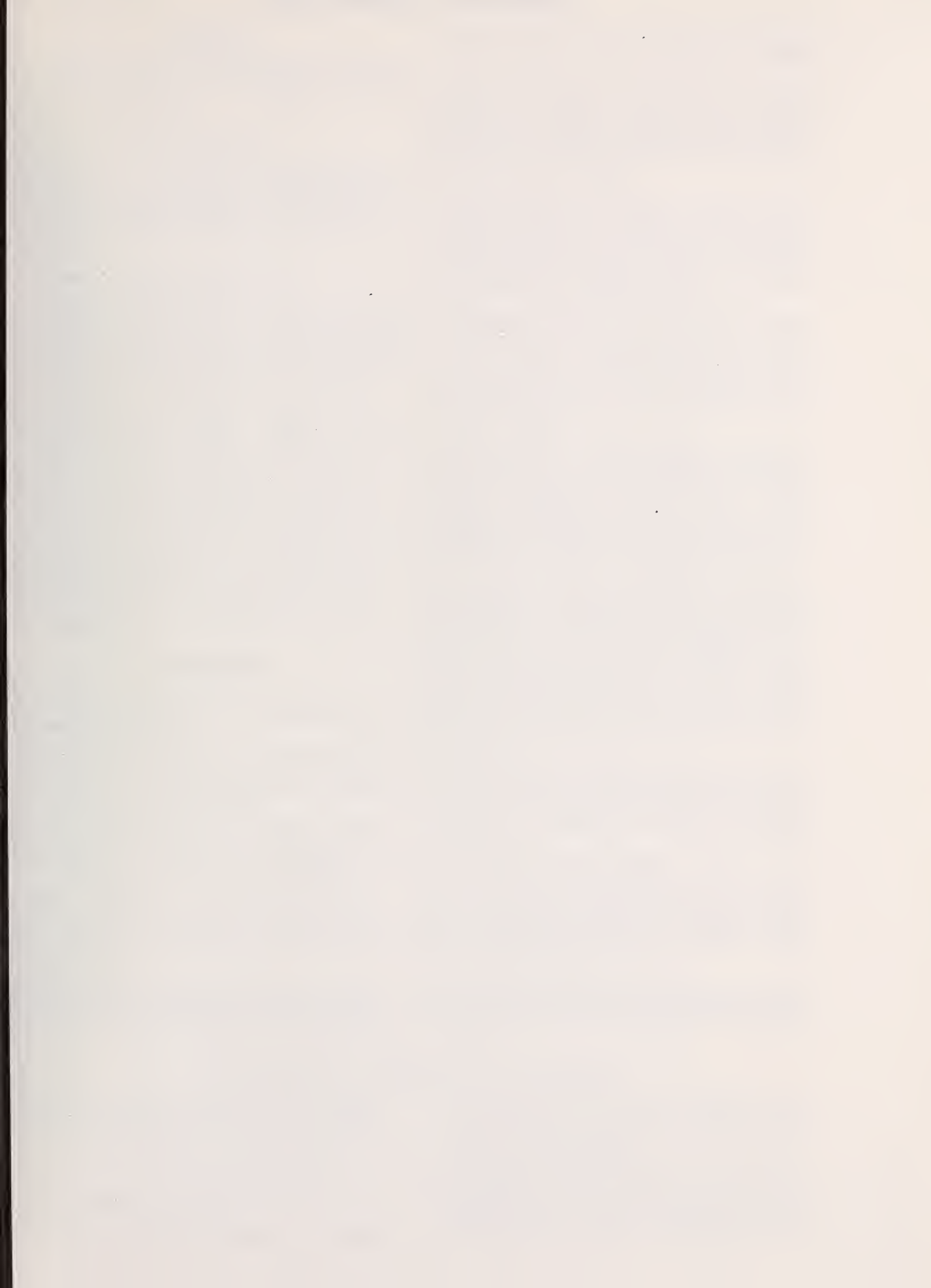
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16. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) The Institute for Computer Sciences and Technology (ICST) at the National Bureau of Standards (NBS) has developed a Software Exchange Directory for the University Research Administration under a contract with the Research Management Improvement Program (RMIP) at the National Science Foundation (NSF). The one hundred Universities and Colleges receiving the largest Federal funding for research and development were sent an Office of Management and Budget (OMB) approved survey instrument developed for this purpose at ICST. Seventy-five institutions sent responses suitable for 83 Directory entries under Administrative Information and 315 Directory entries under Software Package Summaries. An administrative entry contains information on the reporting unit, the basic administrative structure and parameters, computer usage, automated functional areas, and comments. A package entry contains a functional description, software and hardware characteristics, history, availability and comments. The administrative entries have been indexed by funding size, size of research staff, number of Federal granting agencies, and number of contracts and grants awarded in Fiscal Year 1974. The software packages have been indexed by function, computer used and language used. The detailed entries and indexes should help open communication channels for this community of computer users and thus maximize transferability of these programs between institutions. They also draw a comprehensive state-of-the-art picture of this area of computer use.			
17. KEY WORDS (six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons) Directory; equipment management software; fiscal administration software; grant/contract software; personnel management software; proposal/award software; research administration; software exchange; software summary; software survey; space management software; university systems			
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