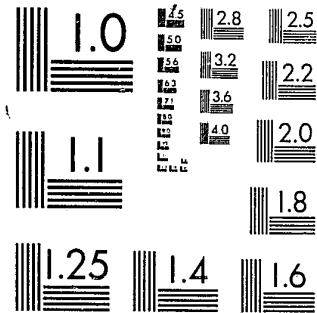


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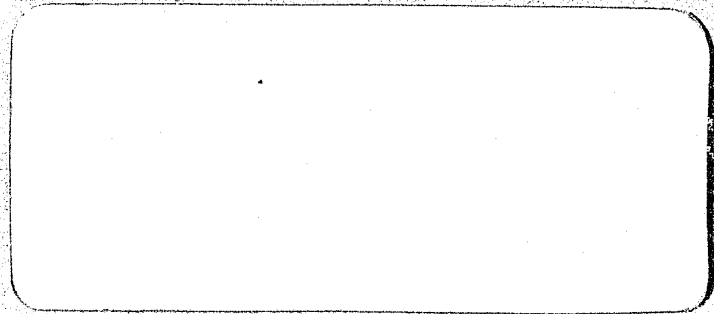
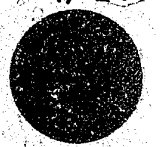
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✓
ACTION PLAN
FOR THE
DEVELOPMENT AND IMPLEMENTATION
OF JURIS IN THE
NEVADA COURT SYSTEM

Prepared by

SEARCH Group, Inc.

Roy E. Boswell
Richard K. Northrop

Report of work performed under Contract No. 78-100,
submitted to the Nevada Administrative Office of the
Courts.

NCJRS

JUL 28 1981

ACQUISITIONS

SEARCH GROUP Inc.

1620 35th AVENUE SUITE 200 SACRAMENTO, CALIFORNIA 95822 (916) 392-2550
GARY D. McALVEY, Chairman STEVE E. KOLODNEY, Executive Director

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INTRODUCTION

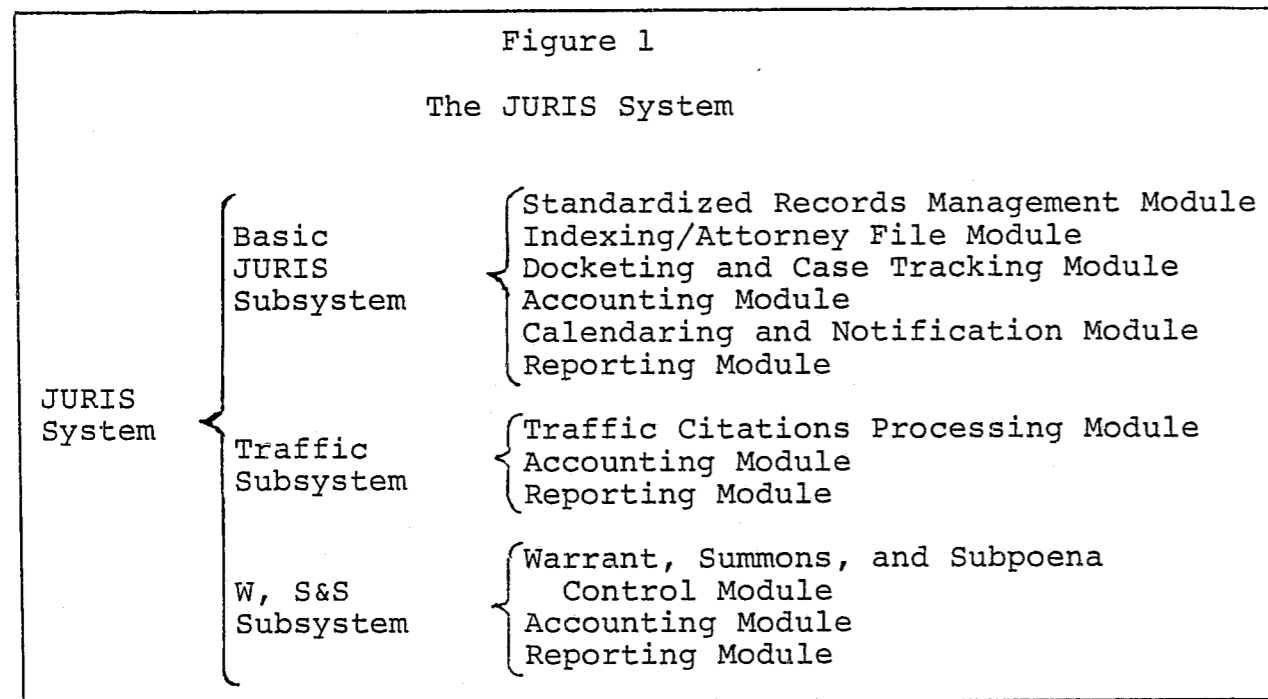
The Action Plan for the design, development and implementation of a Judicial Uniform Records Information System (JURIS) for the Nevada Court System is an elaboration of the general plan for JURIS development presented in "Cost Benefits Analysis for the Nevada Court System". The cost benefits analysis performed for the Administrative Office of the Courts (AOC) by SEARCH Group, Inc. has shown that such a system will provide a significant reduction in the cost of clerical operations which support the courts of the State of Nevada. In that study, the general needs of the courts were identified as were the different elements, or modules, of a system to satisfy those needs. Additionally, JURIS design, development and operation costs were estimated and projected over time.

The development cycle of an information system is a rigorously structured process wherein problems are defined and alternative solutions to the problems are postulated. This process permits a subsequent redefinition of the problems in greater detail and with greater precision. In the case of the Nevada Court System, as in almost all organizations entering into a system development, the initial statement of the problems was generalized. The state Court Administrator is unable to discharge his duties as specified in NRS § 1.360. Clerical operations within trial courts are error prone, manpower intensive and unable to cope with increasing workload.

The purpose of this document is to refine that schedule and present a more detailed identification of the tasks involved, the time frames within which they are to be performed, and to identify some of the significant barriers to successful JURIS development and implementation.

JURIS Subsystems

The eight modules that define JURIS may be divided into three independent subsystems. Each may be developed independently, and each requires no data from the other two for operation. The hierarchical chart below, which is read left to right, top to bottom, shows JURIS divided into these subsystems.

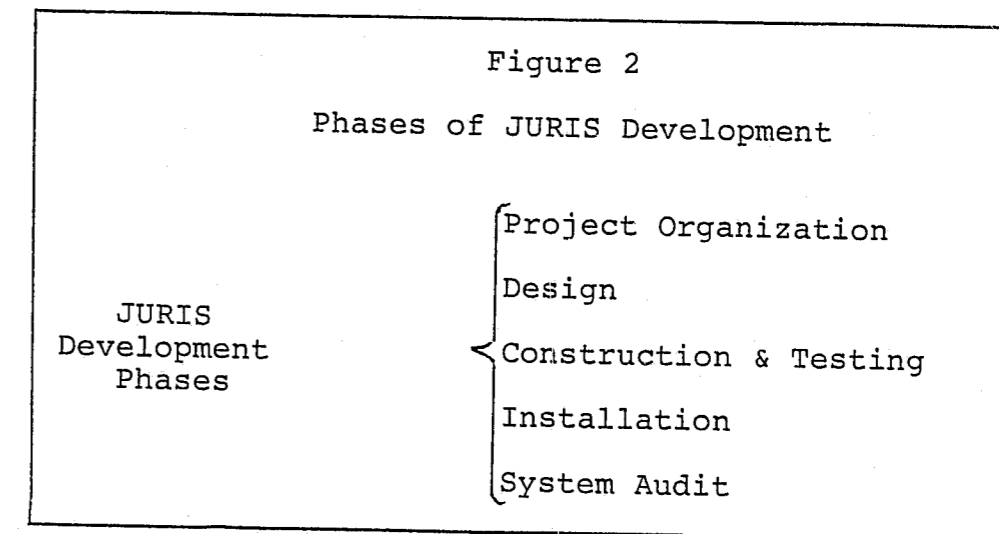


Partitioning of the JURIS modules is required because the technical system development steps will be repeated, perhaps simultaneously, for each of the three JURIS modules. Although the Standardized Records Management Module could be considered separately from the other Basic JURIS Subsystem modules, (it was considered separately in the system development discussion (Section 4.0) of the cost benefits analysis), it has been integrated into the Basic JURIS Subsystem here because it will comprise the entire system for Type I and Type II courts. Within the Basic JURIS Subsystem, there is an appropriate sequence of module development because much of the data used by some of the modules is derived from data actually collected for others.

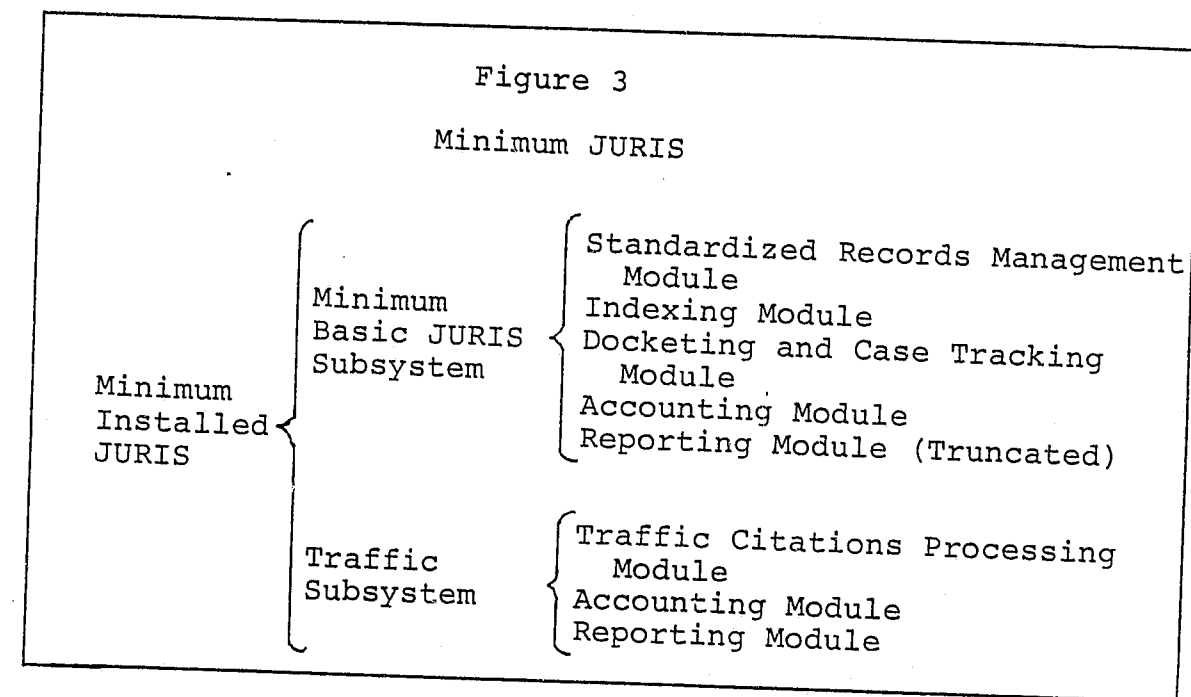
For example, the Reporting Module uses data extracted or computed from data collected for the other modules. By the same token, all of the data about fines, fees, and forfeitures to be used by the Accounting Module will be obtained from the Docketing and Case Tracking Module.

JURIS Development Steps

JURIS development will consist of the following major phases.



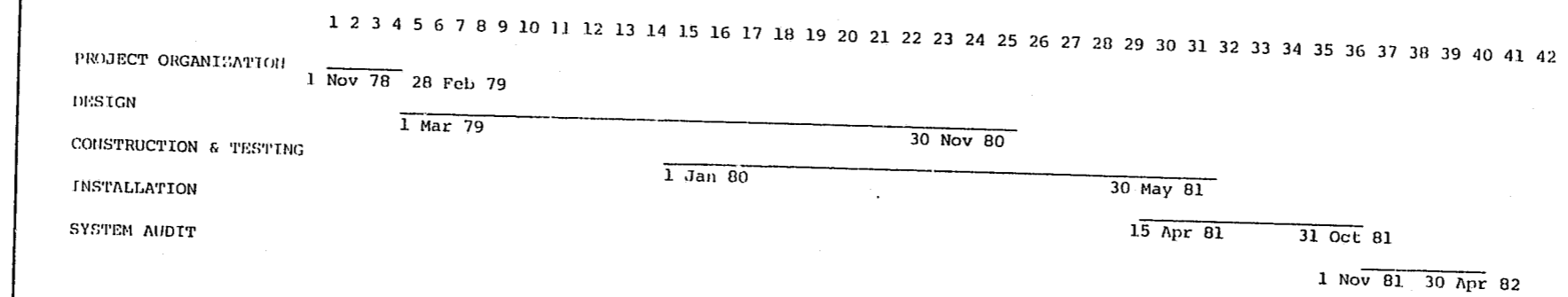
In order to design a system that will ultimately be capable of supporting every JURIS module, all three of the JURIS Subsystems should be developed through the Design Phase. The Construction and Testing and the Installation Phases for the Traffic or Warrants, Summonses and Subpoena Control Modules and for parts of the Basic JURIS Subsystems can be deferred until a later date. However, to meet the basic needs of the state courts and state Court Administrator, a minimum JURIS should consist of the following configuration.



The remainder of this Action Plan discusses each of the phases of JURIS development in detail.

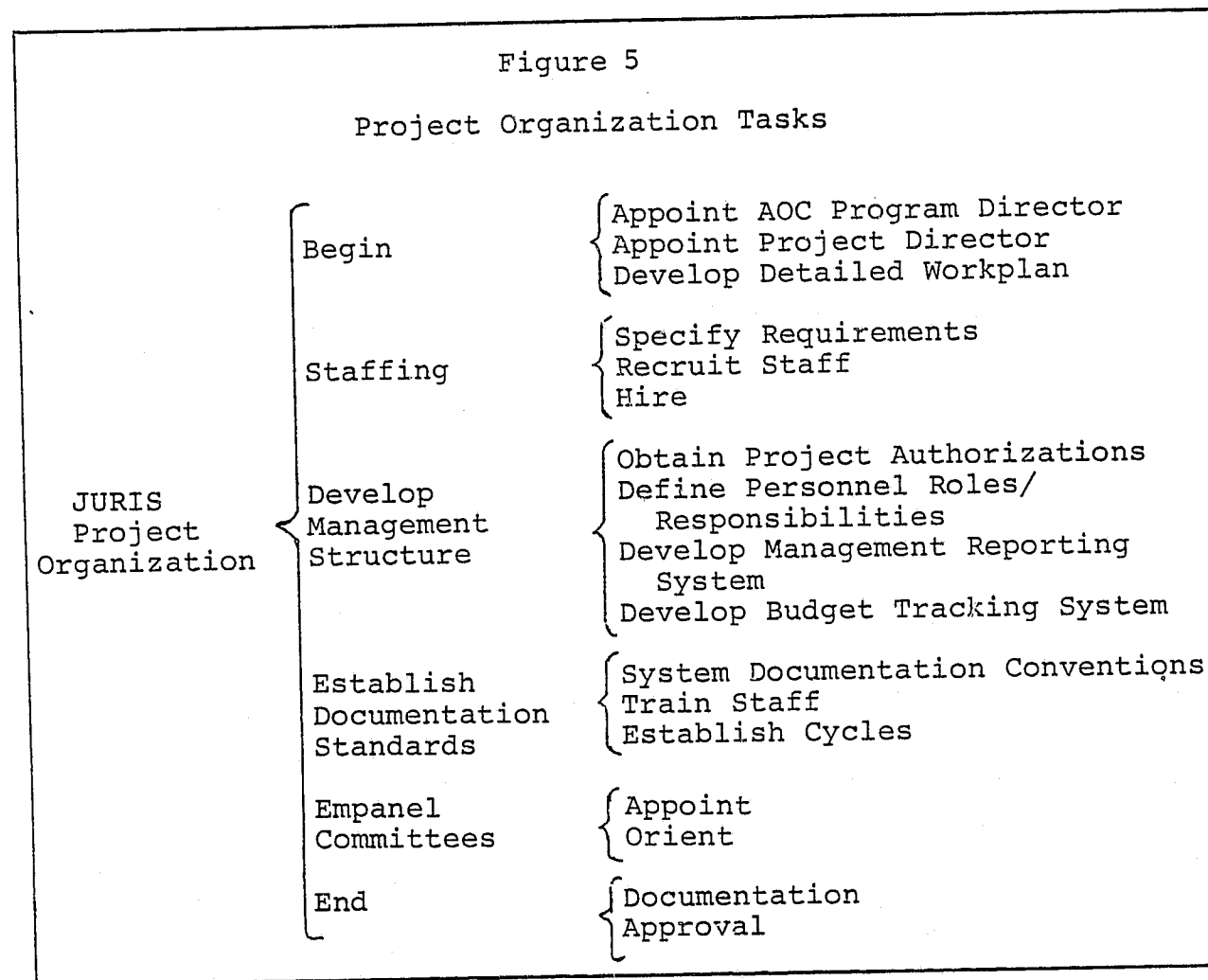
The overall schedule for the phases of JURIS development is depicted on the next page.

Figure 4
 JURIS DEVELOPMENT SCHEDULE



PROJECT ORGANIZATION PHASE

Although only four months in duration, the importance of Project Organization far exceeds the relative time it consumes. When this phase is complete, a project structure manned by project personnel and oversight committees will be in place, with responsibilities defined and a reporting network installed that will enable the project to move forward unimpeded. Figure 5 below shows the major tasks of Project Organization.



The beginning task is based on an assumption that staffing for the JURIS project will follow the recommendations made in "Cost Benefits Analysis for the Nevada Courts". Figure 6 provides the recommended staffing budget. The AOC Program Director and the Project Director will begin detailed planning of the design phase tasks as they recruit and hire staff for the project.

The management structure defines the authorities, responsibilities and lines of communication between all the personnel involved with the project. This structure enables the coordination of many simultaneous activities so that the project objectives can be successfully realized. Typical authorizations that must be obtained for the JURIS development team are to:

- encumber funds;
- hire staff members;
- approve deliverables;
- procure supplies;
- obtain contractual assistance.

Management reporting and budget tracking systems will allow administrative personnel at the AOC to keep abreast of the JURIS project without participating on a daily basis.

JURIS documentation standards will enable JURIS to be documented as it is developed and will ensure that staff members developing different modules will use the same documentation conventions. The documentation standards will also specify time frames for completing the computer programs and system documentation.

Figure 6
 Personnel Budget for the
 Development and Operation of JURIS

	MONTHLY	1979		1980		1981		1982 ONWARD	
		MAN MONTHS	TOTAL	MAN MONTHS	TOTAL	MAN MONTHS	TOTAL	MAN MONTHS	TOTAL
ADMINISTRATIVE OFFICE STAFF									
Court Administrator	\$2,500 ¹	1	\$ 2,500	5	\$ 1,250	5	\$ 1,250		
Program Director	2,083	8	16,664	9	18,747	9	18,747	6	\$ 12,498
Senior Systems Analyst	2,083	12	24,996	12	24,996	12	24,996	12	24,996
Systems Analyst/Programmer	1,875			7	13,125	12	22,500	12	22,500
Programmer (2)	1,810					24	43,440	12	21,720
Operator	1,562	12		10		6	9,372	12	18,744
Statistician	1,562	12	12,000	12	12,000	7	10,934	6	9,372
Secretarial	1,000	12				12	12,000	12	12,000
TEMPORARY PROJECT STAFF									
Project Director	3,125 ²	12	37,500	12	37,500	12	37,500		
Systems Analyst/Designer	3,125	12	37,500	12	37,500	12	37,500		
Systems Analyst/Programmer	1,875			6	11,250	12	22,500		
Technical Writer	1,875	12	22,500	12	22,500	12	22,500		
Secretarial	1,000	12		12	12,000	12	12,000		
TOTALS			<u>12,000</u>		<u>12,000</u>		<u>12,000</u>		
			<u>\$165,660</u>		<u>\$190,868</u>		<u>\$275,239</u>		<u>\$121,830</u>

¹ Monthly figures include 25% overhead/payroll rate
² Based on \$125/day basis

A committee of JURIS users is essential for the project to be a success. This is the primary vehicle by which courts personnel are made to understand that JURIS is being developed primarily for them and not purely as a statistical system for the state Court Administrator. Their approval of all major project deliverables will be an endorsement of JURIS and will assure that JURIS will work in an operational environment. Membership in this committee should consist of 15 persons, one judge and two clerks from each of the four types of courts defined in the cost benefits analysis, a data user from the AOC and two members of the Judicial Planning Committee. Even if the subsequent phases of JURIS development must be delayed until funds to support the Oversight Committee are found, JURIS development should not commence until this committee is appointed and has had its first meeting. An early start is recommended because several of the subsequent development steps require field surveys, and inclement weather during the winter months can cause serious delays in completion of the surveys.

The only barriers to the completion of the project organization phase of JURIS development have traditionally been attitudinal. In many system development projects, administration fails to recognize or chooses to ignore the necessity of a formal project organization. The benefits resulting from a formal project organization phase are project control, staff accountability and a smoothly functioning JURIS development team.

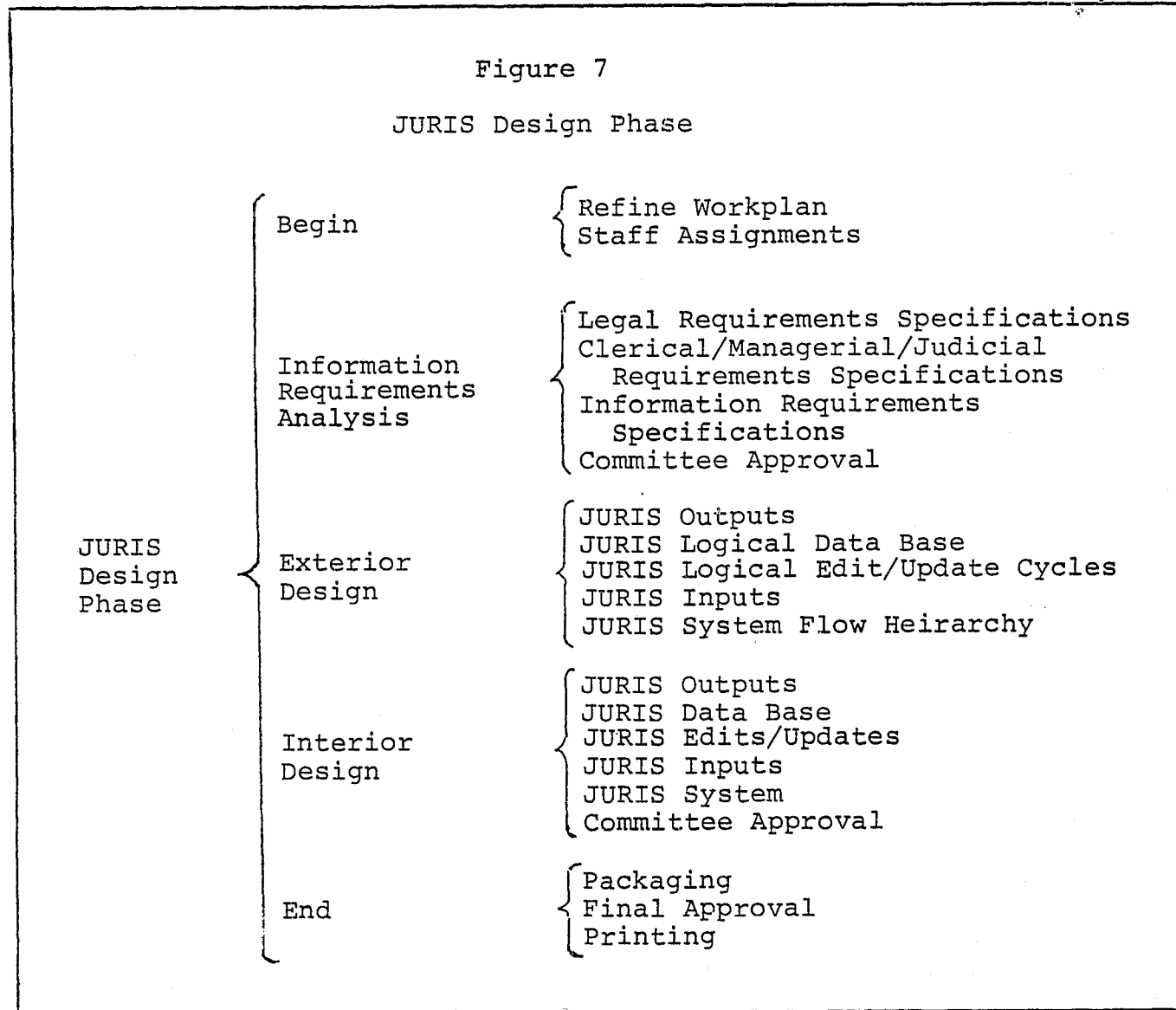
JURIS DESIGN PHASE

As Figure 7 indicates, there are five major tasks associated with the JURIS design phase. This phase of the JURIS project absorbs more time than any other. If JURIS is well designed (that is, specified and documented to the greatest possible level of detail), then the following phases are straightforward. Construction and testing are limited by the detail in the design, for a program cannot be written from an incomplete design unless the programmer makes assumptions or asks the analyst for more detail. In either event there is a high probability that these details will not be documented. Such ad hoc designing usually results in a system which is, at best, difficult to understand and, at worst, unusable. Either the individual programs interrelate so poorly that the system will not run or there are hidden logic and programming errors which will result in erroneous data reporting or a system failure at some unpredictable future date.

Information Requirements Analysis

This step is concerned with defining the information needs of the users of JURIS information, in this case the clerical, managerial and judicial personnel of the District, Justice and Municipal Courts of the state as well as the planning, budgeting and administrative staff of the AOC.

There are two types of information requirements that must be satisfied by JURIS. The first is legal, in that there are



legal requirements pertaining to the minimum amount of information that must be shown on court records. The second set of requirements consists of those requirements necessary to support the clerical, managerial and judicial functions of the trial courts, and the administrative, managerial and reporting functions of the Administrative Office of the Courts. These two sets of requirements are the independent variables of the system; once defined, all of the following system development steps are pointed at satisfying them.

The determination of legal requirements can be accomplished through an analysis of the statutes. Determining the clerical, managerial and judicial information requirements, however, requires an extensive field survey. Most of this survey will be concerned with that information that relates to the Standardized Records Management Module, since court records drive JURIS. Ideally, every court in the state should be visited and samples of every form used in each of those courts should be obtained. For those forms, such as bound docket books, of which samples would be impractical to obtain, photographs should be taken. Clerks, judges and local bar should be interviewed to obtain detailed information on how each of these forms are completed, routed, stored and otherwise used. All of the procedures for handling all court documents should be documented.

At the same time, the interviews should be constructed to determine in detail the functions and duties that court personnel perform, and the information that is required to perform each.

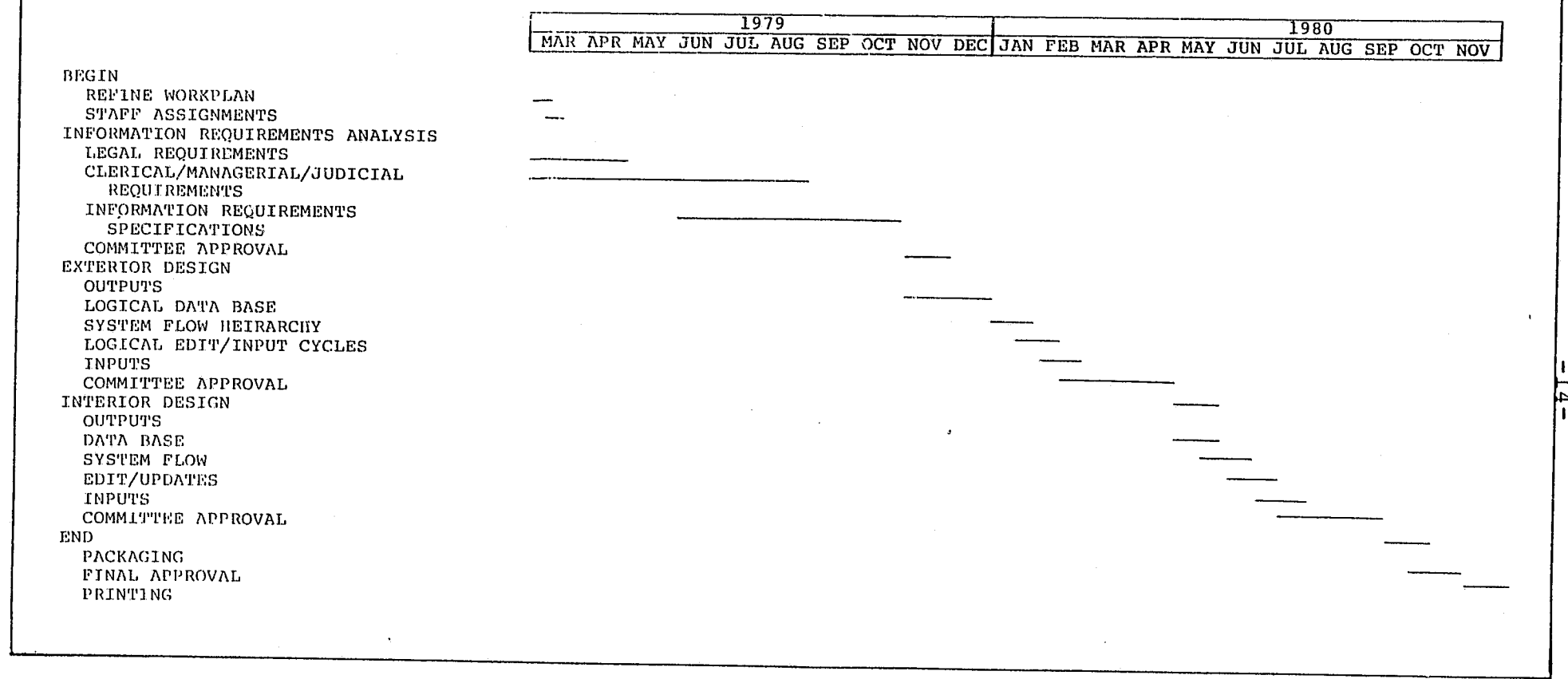
Another component of the study is to contact other courts throughout the United States to obtain examples of forms and case records management procedures and systems in use in those various other states.

Finally, all of this data will be translated into a set of specifications of the information that is required by judges, clerks, managers and the local bar in order for them to perform their duties. Included should be legal constraints on any of this information. These specifications will discuss the general functions and duties of all personnel involved with the judicial process, with example output reports showing the information that is required to support each. The information requirements will also specify the data elements that are necessary to produce those outputs.

The information requirements specifications should be formally documented and presented to the advisory committee for their recommendations. As Figure 8 indicates, information requirements analysis should commence on 1 March 1979 and be completed by 30 November 1979. The information requirements analysis is the longest single task of JURIS development. Its length is an indication of its importance to the ultimate success of JURIS. It is essential that the information requirements analysis result in a clear definition of the duties and responsibilities of all affected personnel and a clear description of all steps of the judicial processes for all case types. It is also critical that all affected personnel throughout the

Figure 8

JURIS Design Phase Schedule



state be allowed to review for comment the information requirements specifications that will ultimately define JURIS.

Exterior Design

The exterior design is the first complete definition of JURIS. In non-technical language, the exterior design defines what JURIS will produce in the way of information, when the information will be produced and who will receive it; the data elements that will be required to produce the information; how the data will be organized; how and when the data will be processed; how and when the data will be edited and the record updated and the kinds of inputs that will be required to operate the system.

The exterior design will largely define the Standardized Records Management Module, and will include procedures for managing documents, recommended storage media, file organization and drafts of all forms. The exterior design is the basic reference that is used by all participants in JURIS development when discussing the system. Any changes that are made in the system must also be made to the exterior design document so that it always reflects the current functioning of the system.

As Figure 8 indicates, exterior design should commence on 1 November 1979 and be completed by 30 April 1980.

Interior Design

The interior design is the technical definition of the system. The format, content and layout of all outputs are finalized, the data base including all keys is defined and

charted, the system flow is charted, and estimates of the numbers of transactions that the system must support are calculated. All program logic is constructed to a level of detail that will allow coding. If possible, actual forms are printed on a pilot basis. The interior design is the document that will be handed to system designers and programmers and from which detailed hardware specifications will be developed and programs will be written.

Once committee approval is secured, the information requirements analysis, the exterior and the interior design should be printed and bound in three-ring binders as part of the permanent set of documentation. As Figure 8 shows, interior design begins on 1 May 1980 and is completed by 15 October 1980.

JURIS CONSTRUCTION AND TESTING PHASE

In this phase of JURIS development, pieces of the system are constructed, integrated and tested in an operational environment, and refined for installation statewide. This is a technical phase, dependent upon the design phase, and since it will not occur for some time, discussion about this phase is limited. Figure 9 shows each of the five major tasks that must be accomplished to successfully complete the construction and testing phase.

Begin

At this point in JURIS development it will be necessary to hire the additional programmers that have been proposed for the personnel budget. These new personnel will also have to be trained in the documentation conventions that are being used by the development staff as well as acquainted with the managerial structure and the interior design itself. Figure 10 shows the task commencing on 2 January 1980 and ending 7 April 1980.

Hardware Acquisition

The specifications for hardware capabilities will largely be produced as a byproduct of performing the interior design. The size of the operating system, the number and speed of transactions that must be supported, teleprocessing capabilities and overhead required to support system software will be assembled into a set of specifications. Another set of specifications having to do with reliability, availability, service and general compatibility

Figure 9
JURIS Construction & Testing Phase

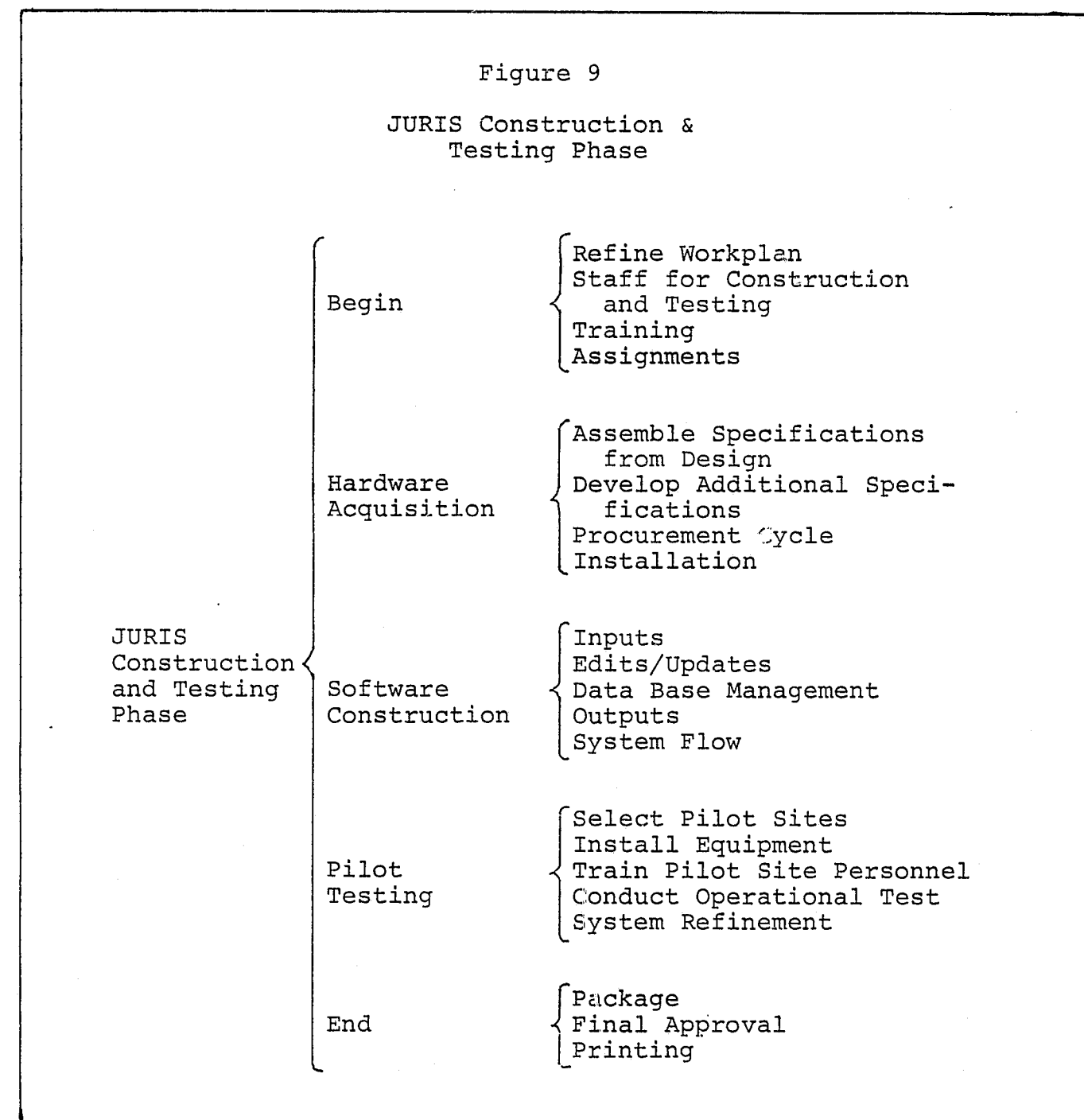
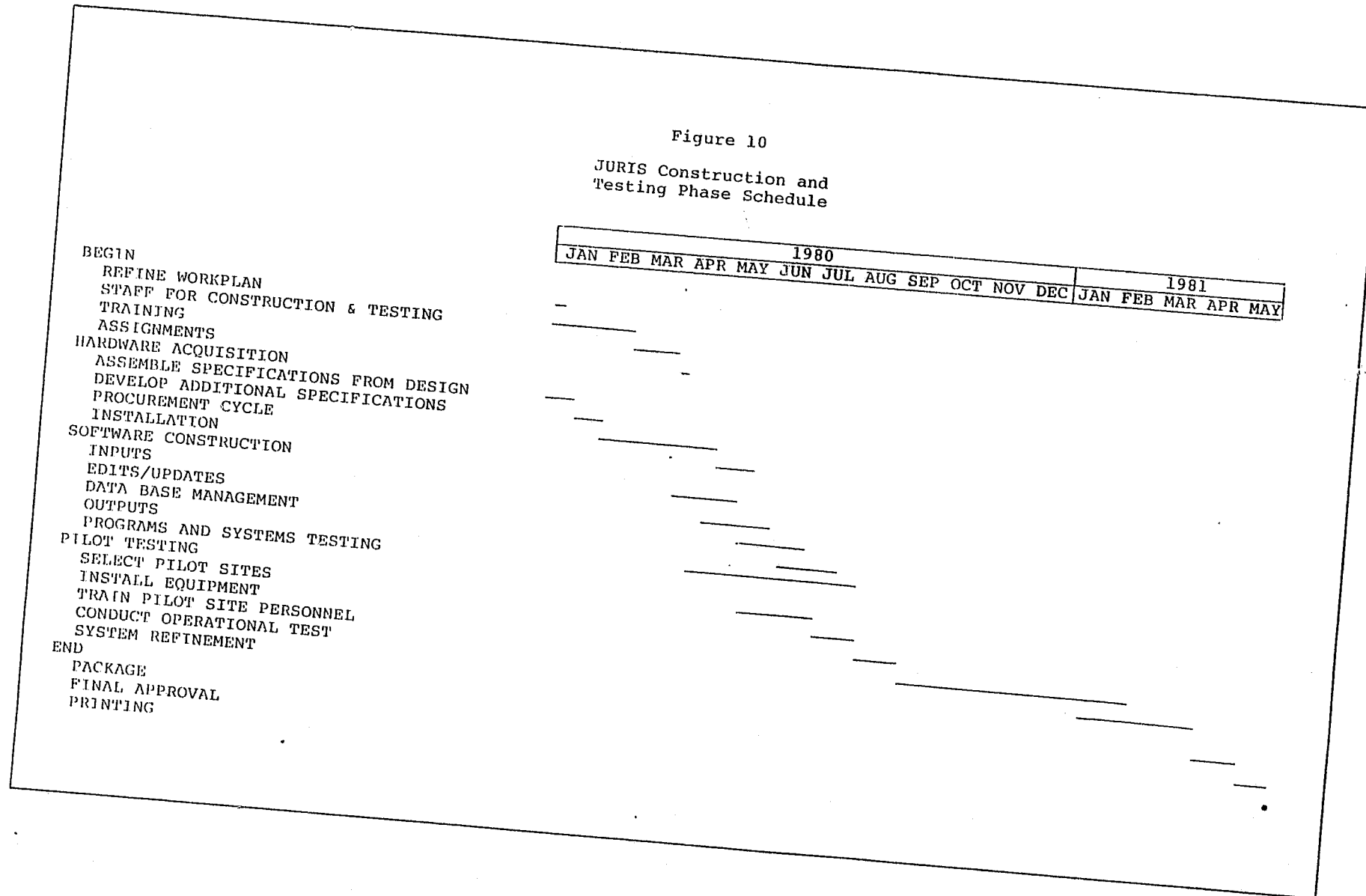


Figure 10
 JURIS Construction and
 Testing Phase Schedule



will also be developed. A benchmark test and a test data base will be developed for the purpose of testing applicant systems. The procurement cycle will include the preparation of requests for proposals; the development and use of a process for evaluating the responses to ensure objectivity; the conduct of benchmark testing; selection of finalists; negotiations and the final selection of the contractor. Contracts will be executed so that acceptance is contingent upon a series of tests which will be conducted at the time of installation. As Figure 10 indicates, hardware acquisition should commence on 1 January 1980 with the equipment installed by 30 May 1980.

Software Construction

This step of development is concerned with writing and testing programs, integrating the programs into a system and testing the system as a whole. It should commence on 1 April 1980 and be completed by 1 September 1980. This is a relatively short time frame for the development of software, but if the system is well designed and the interior design contains all of the system and programming logic clearly charted in detail, then the system can be ready for pilot implementation after only five months of software development.

Pilot Testing

After selecting sites for testing JURIS, installing all necessary equipment, including forms and files, and training pilot site personnel, a 5½ month operational test will commence.

It will be designed to uncover any problems with the system and perfect an approach to the training of court personnel to use JURIS. The commencement of the operational test coincides with the completion of the development of the standardized records management module, at the end of the interior design task on 1 August 1980. System refinement will be the process of making adjustments to the system as dictated by any difficulties that users encounter. As Figure 10 illustrates, the JURIS construction and testing phase will commence on 1 January 1980 and be completed on 15 June 1981.

JURIS INSTALLATION PHASE

This phase of JURIS development is concerned with implementing the system statewide. As Figure 11 shows, there are four major tasks that must be accomplished between 1 April 1981 and 1 November 1981 (see Figure 12).

Begin

A changeover plan and schedule must be developed for conducting training and installing equipment in all of the jurisdictions throughout the state of Nevada. Staff will be assigned to conduct the training and assist the equipment vendors as required to install equipment locally. The distribution logistics referred to in Figure 11 are concerned with a network for the delivery of all of the JURIS standardized citations, legal forms, clerical forms, indexing materials, computer tapes, paper, and so forth. This system will insure the smooth flow of data in and out of JURIS, unimpeded by the exhaustion of supplies upon which JURIS is dependent.

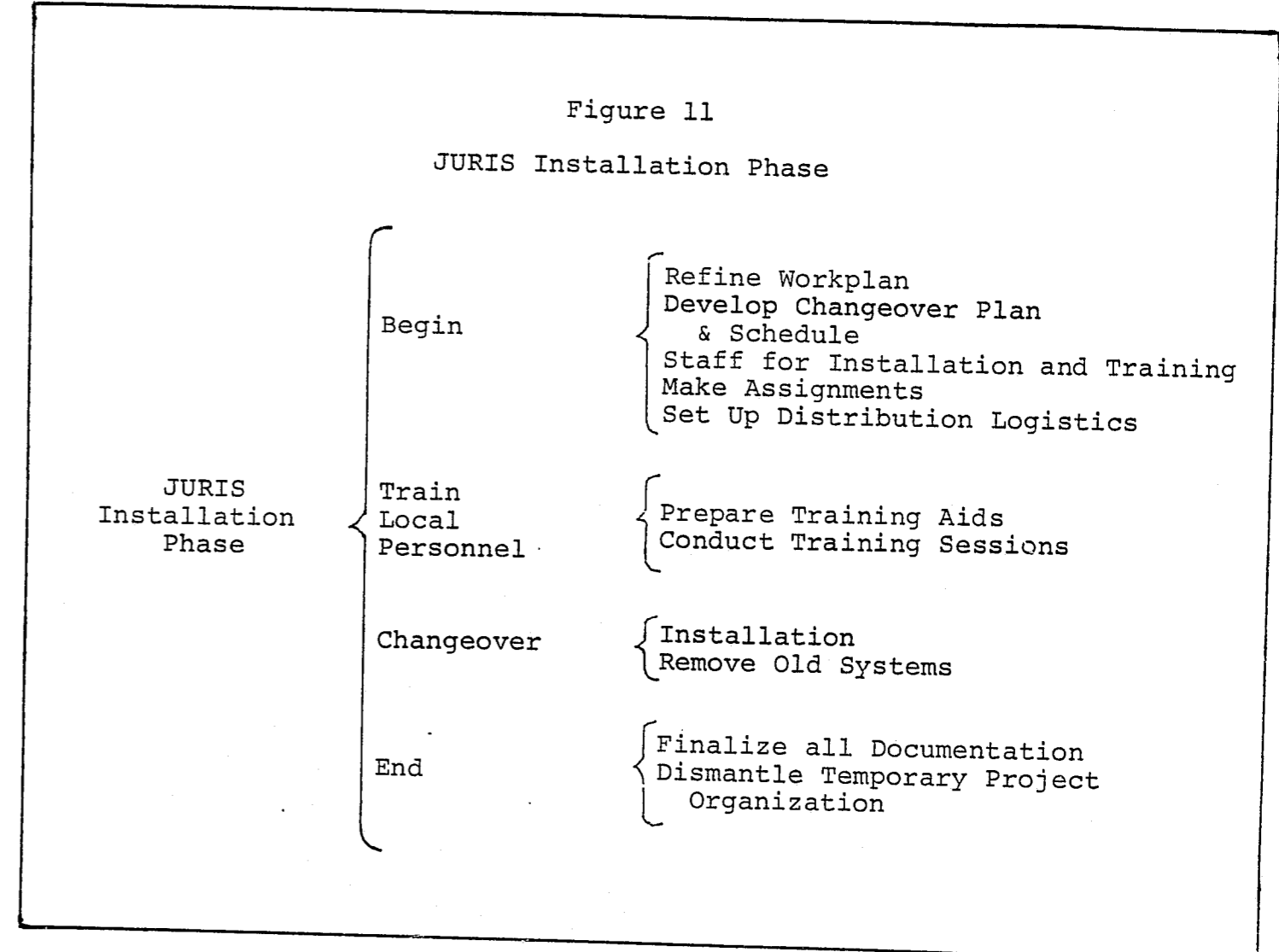
Train Local Personnel

This task is concerned with the construction of a training program so that training staff can operate independently, yet exactly the same training will be provided to all personnel, regardless of locality.

Changeover

Changeover consists of the actual installation of all JURIS equipment in the field plus the removal of those old

Figure 11
JURIS Installation Phase

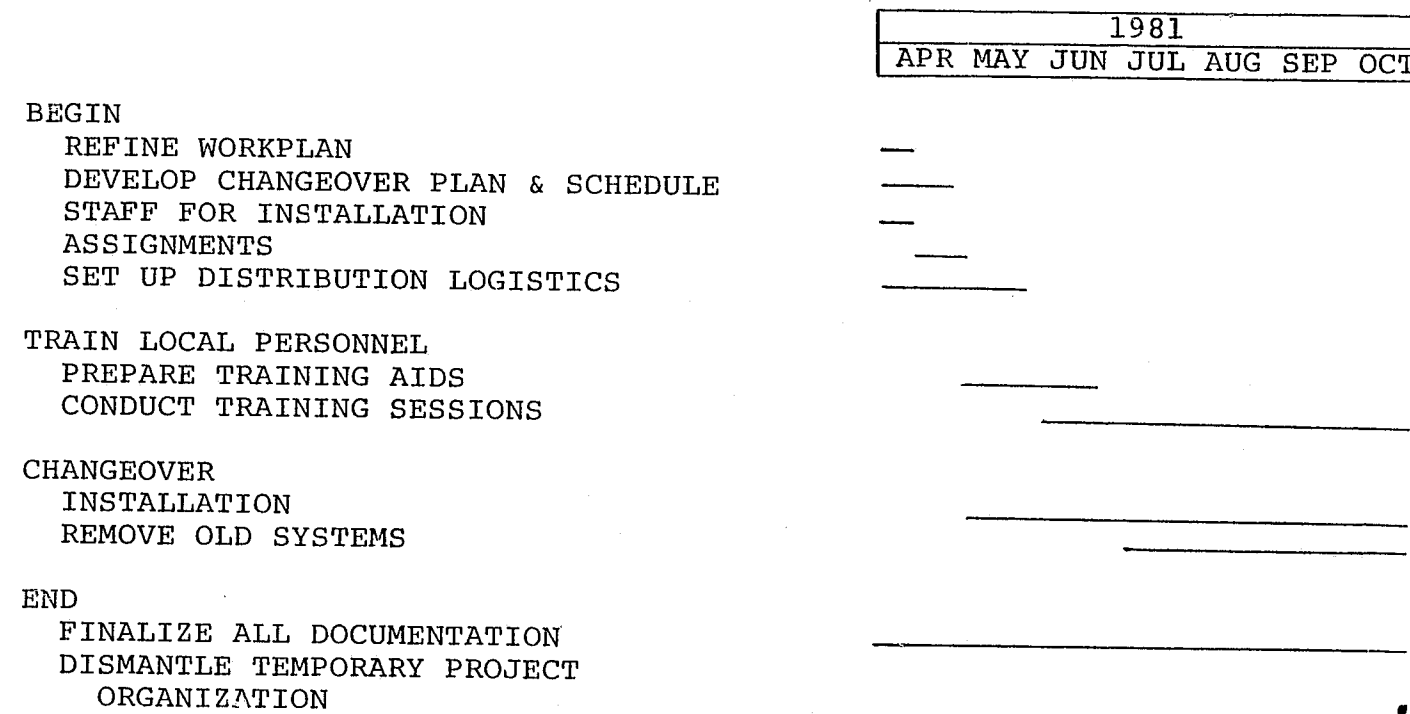


system components such as indexes and filing systems upon which clerical staff might remain dependent. Figure 12 shows the installation phase commencing on 1 April 1981 and ending on 31 October 1981.

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Figure 12

JURIS INSTALLATION PHASE SCHEDULE



JURIS SYSTEM AUDIT PHASE

A complex venture such as the development and implementation of a statewide judicial uniform record information system should never be simply performed and installed. The system should not be considered to be operational until it has stabilized and is operating in a live environment for some period of time. The tasks involved in this phase reflect that viewpoint. As Figure 13 indicates, the JURIS system audit phase will consist of six major tasks.

Data Validation

Data validation is the process of collecting, analyzing and evaluating the quality of data coming in from the field. A series of statistical programs can identify adherence to codes or coding peculiarities. The data validation process will identify those jurisdictions that are having difficulties in providing high quality data, and will indicate interpretation problems with the JURIS coding manual.

User Survey

After statewide conversion has been completed, and all the courts have had an opportunity to use JURIS as a live system, the Administrative Office needs to return to the field to survey all of the users concerning their usage of the system and seek areas in which the system can be improved. This is an activity that can take place simultaneously with data validation. (See Figure 14).

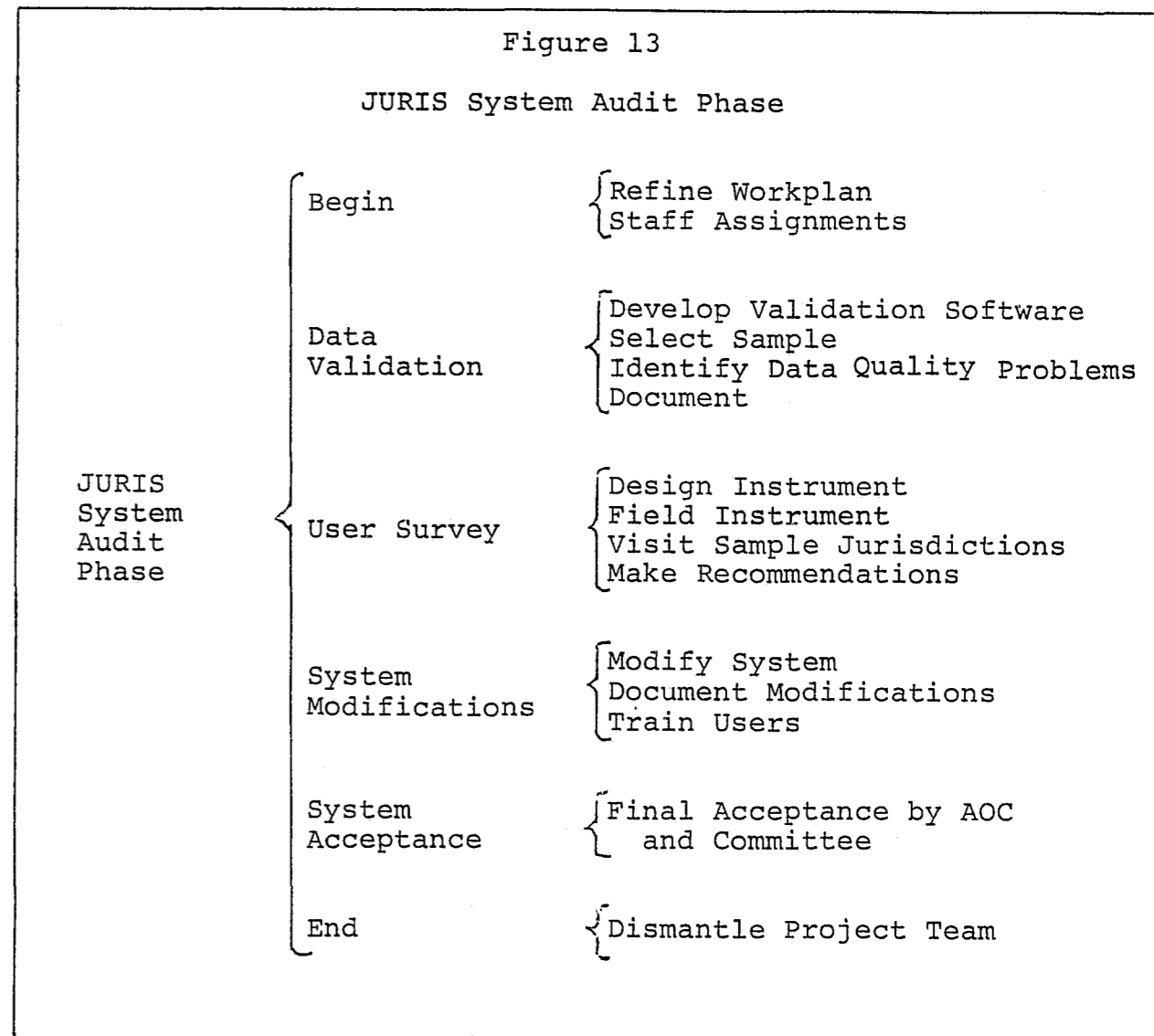
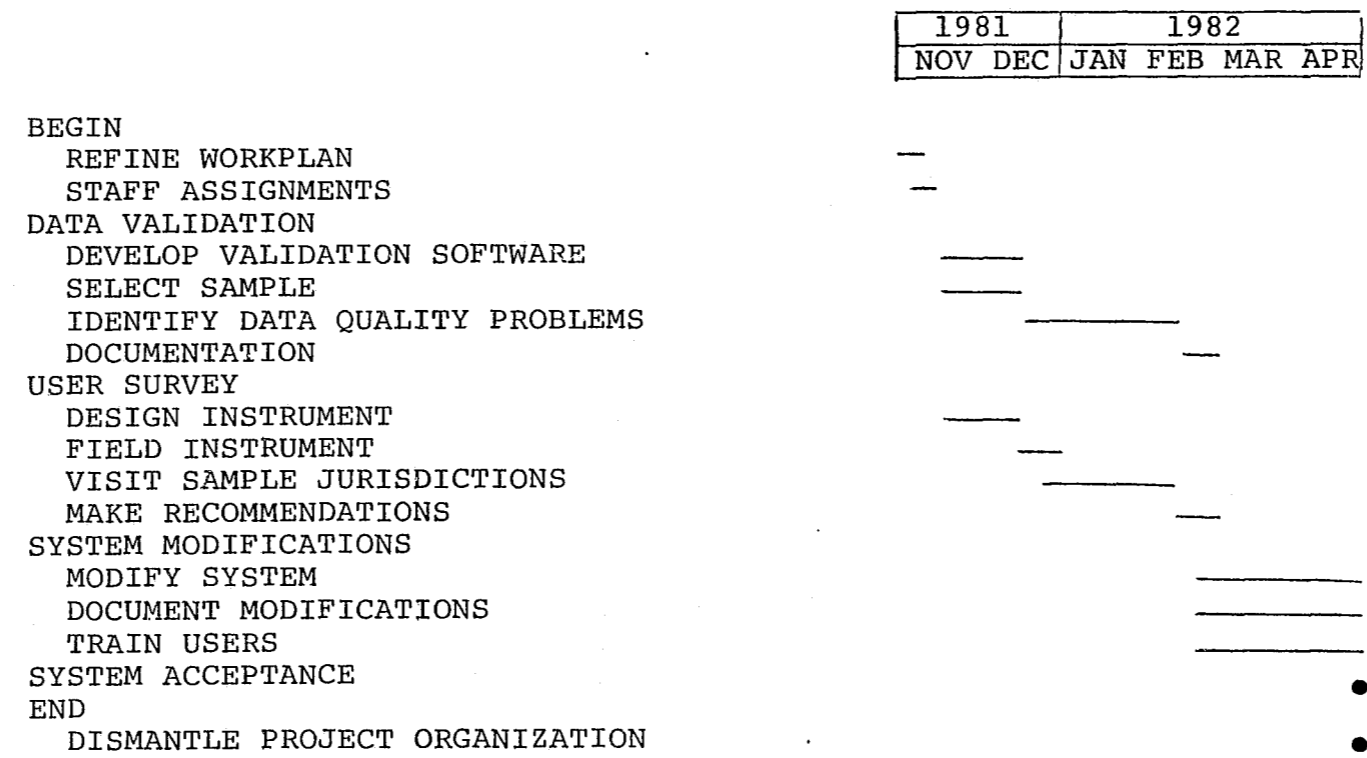


Figure 14

JURIS System Audit Phase Schedule



System Modifications

Based on the difficulty that users encounter in operating JURIS and based on the data quality problems encountered in data validation, JURIS will be modified. Most modifications will probably occur in the JURIS users' manual, particularly in the coding instructions. These modifications should be documented and those that affect the way the system operates should be documented all the way back to and including the exterior design document. Finally, JURIS user training will have to be extended to acquaint the users with the modifications.

System Acceptance

This is the formal acceptance of JURIS by the Administrative Office and the Oversight Committee. Acceptance will signal the commencement of JURIS as an operational system.

As shown in Figure 14, JURIS system audit phase will commence on 1 November 1981 and be completed by 30 April 1982.

END