IOWA COURT INFORMATION SYSTEM

Functional Description

March 1991

SECTION 1: INTRODUCTION

ICIS DEFINITION

The primary purpose of this document is to provide a summarized description of the ICIS application systems. Most of the information in this document has been abstracted from the following system design documents:

- *ICIS Total Requirements Statement* - Finance and Personnel
- *ICIS Design Statement* - Finance and Personnel
- *ICIS Total Requirements Statement* - Case Processing
- *ICIS Total Requirements Statement* - Case Administration
- *ICIS Design Statement* - Case Processing (includes Case Administration)

Anyone needing a more detailed perspective of the application systems should review the above documents. In addition, a thorough description of the ICIS history and general requirements are continued in the document Requirements Analysis and Master Plan, Final Report, dated January 1987. Anyone wishing a complete understanding of the ICIS origins and intentions should review that document.

ICIS CONTENT

The ICIS application systems are composed of the components shown in Table 1.

As a general rule, the various components of the ICIS application set are identified as "systems" (e.g., Finance and Personnel); "subsystems" (e.g., Budget); and "modules" (e.g., a specific screen or report within Budget).

Table 1. ICIS System/Subsystem Definition

System	Subsystem
Finance and Personnel	Accounts Payable Budget Financial Reporting Judicial Retirement Personnel Administration Property Inventory
Case Processing	Consolidated Case Processing Appellate Case Processing Appellate Records Management Juvenile Court Services Case Financial Management

	Notice Generation Tickler System Administration
Case Administration	Scheduling Jury Management

ICIS ARCHITECTURE

ICIS is defined as a "distributed" system. The intent is to have the processing and storage of data as close to the actual users and owners of the information as possible.

Consequently, ICIS computer systems will be installed at each county courthouse throughout the state. Each of these computer systems will contain a complete complement of hardware and software to support the processing needs to the Judicial Department personnel at that site.

Additionally, the computer systems installed at the eight counties which are also district offices will contain those components needed to support district processing.

The department's processing requirements at the state level will be supported by a system installed at the offices of the State Court Administrator (SCA) in the Capitol.

ICIS PLATFORM

The ICIS application systems reside on a computer systems platform which consists of a hardware layer and a systems software layer.

The hardware is an IBM RX/6000 minicomputer systems. Each system will be configured with an appropriate complement of processors, memory, PCs and terminals necessary to support the operations at the installation site.

The systems software includes the AIX UNIX Operating system, the distributed systems architecture uses TCP/IP protocol.

Database Management is accomplished via the ORACLE Relational Data Base Management System (RDBMS).

Application software, in addition to the ICIS functions, includes Word Perfect Office, which supports word processing and electronic mail as well as other office oriented tasks.

ICIS DATA COMMUNICATIONS

Each ICIS site will be connected to the statewide ICIS data communications network. Consequently, it will be possible to move data to and from the sites, as required.

As a general rule, a site will transfer data to or receive data from another site at the next organizational level. A county will communicate with its district site, district will only communicate with their counties and the SCA site, and the SCA will only communicate with the districts and other state agencies.

These "rules" are intended to ensure control of data movement and are not the result of actual network restrictions. The network will support communication between any of the ICIS sites (i.e. county to county, district to district, SCA to county). As data movement requirements grow and become better known, a more inclusive set of data communications rules may be adopted. In the meantime, the following example illustrates the rule. A message from a county is sent to a person in another county in another district. The message actually goes to the district headquarters for the originating county, then to SCA, then to district headquarters for the destination county, then to the destination county. All of this routing is controlled by the network and required no intervention on the part of either sender or receiver.

The ICIS network uses the services provided by the Iowa Communications Network (ICN) wherever feasible. The ICIS network provides 56KB framed relay networking service to all systems. Because they have dedicated line service, these sites are always connected to the network and there is "online" communication between the SCA and the districts.

For those sites with low data communications volume (e.g., most counties), an automatic "dial-up" procedure will be used. This is the same as direct distance dialing for voice communications, except that the computer systems automatically dial and answer without need for any human intervention.

INTERACTION WITH OTHER STATE AGENCIES

ICIS frequently needs to communicate with computer systems at other state agencies for the purpose of moving data back and forth (e.g., sending Accounts Payable voucher data to the Iowa Financial Accounting System (IFAS) for the purpose of getting a check printed to pay a bill).

All data transmission to and from other state agencies will be conducted via the SCA system. That is, none of the lower level ICIS systems will connect directly to other computer systems.

A precise series of transactions and procedures have been designed in cooperation with management and technical personnel at the various agencies. This design dictates the content, format, timing, and purpose for all data movement.
More information on this subject is found in Section 7.

SECTION 2: FINANCE AND PERSONNEL

OVERVIEW

The ICIS processes a wide variety of financial transactions.

The ICIS Finance and Personnel (F&P) system consists of six distinct subsystems to process the different types of financial transactions.

- Accounts Payable
- Budget
- Financial Reporting
- Judicial Retirement
- Personnel Administration
- Property Inventory

ACCOUNTS PAYABLE SUBSYSTEM

The Accounts Payable Subsystem is designed to support the policy, direction, and needs of a sound, effective purchasing program for the State Courts of Iowa. Currently, an established, promulgated purchasing program exists which directs the Judicial Department and state agencies in the procurement cycle. This program, delineated in the IFAS manuals, maintains procedures and documents for carrying out payable operations. Information continued in the IFAS manuals, the Iowa Courts Information System Master Plan, and gathered from Judicial Department representatives, has formed the foundation of the ICIS Accounts Payable subsystem.

The design of Accounts Payable focuses on those areas of the purchasing cycle most suitable for automation. Other areas acknowledged as payable operations will remain manual (e.g., State appeal board claim).

Accounts Payable supports the recognition and payment of all department-related expenses for the following areas:

- *Requisition and approval* - Requisitions will remain informal. The State does, however, recognize an approval process when the amount of the request exceeds an amount prescribed by the State Court Administrator.

- *Purchase Orders/Encumbrances* - An order or contract to purchase goods or services recognizes an obligation and reservation of budgetary dollars.

- *Claim Vouchers* - External and internal claims represent official documents necessary for payment ro transferring of budgetary funds.

- *Travel Vouchers* - The travel voucher is the approved form for claiming reimbursement

for travel expenses performed on official state business.

- *Warrant disbursement and posting* - Checks (warrants) are written to cover department operating expenses. This disbursement of department funds is recorded for relieving open obligations as well as providing audit able ledgers.

Each area (claim vouchers, purchase orders, etc.) is designed to operate in a similar manner for all processing levels (a processing level being a county, district, or state court computer). In addition to local processing of department-related expenses, a distributed processing approach has been chosen to support the transfer of data between various processing levels of the Judicial Department.

The primary controls of user access to accounts payable information will be based upon each individual's need for and use of such information. Currently, five user groups have been identified as responsible users of the Accounts Payable System: Chief Judge's, Court Administrator's, District Fiscal Officer's, District Financial Aide's, and State Court Administration Staff.

The following subsections identify the major components of the Accounts Payable system:

- Documents
- Database Tables
- Batch Programs
- Screens

Documents

The conformity and coordination of accounts payable operations are maintained throughout the Judicial Department by standard statewide documents. The automated and supporting payable documents include the following:

SECTION 3. CASE PROCESSING AND CASE ADMINISTRATION SYSTEMS

OVERVIEW

The Case Processing system supports all the requirements for processing at both Trial Courts and Appellate Courts. In addition, the Case Processing component supports the requirements for the processing of court services including Child Support, Juvenile Court Services referrals, and Vital Records (birth, death, and marriage). Case Processing Case Administration (Scheduling and Jury Management) share a common database which provides uniform processing on a statewide basis, while maintaining the essential aspects of local court autonomy.

The major subsystems of Case Processing and Case Administration are as follows:

- Consolidated Case Processing
- Appellate Case Processing
- Appellate Records Management
- Juvenile Court Services
- Case Financial Management
- Scheduling
- Notice Generation
- Jury Management
- Tickler
- System Administration

CONSOLIDATED CASE PROCESSING SUBSYSTEM

The Consolidated Case Processing subsystem provides case inquiry, case entry/update, case initiation, standard report, and batch notice functions for Trial Courts. In addition to court cases, this module also processes vital records for births, deaths, marriages, and other events that do not require judicial authority such as the filing of mechanics' liens. This module contains "the docket". Integrated into Consolidated Case Processing are the notice generation, tickler, scheduling, and case financial management subsystems.

Consolidated Case Processing is structured into the following major functional areas:

- Case Inquiry
- Case Update
- Case Initiation
- Standard Reports
- Batch Notices

Case Inquiry

Case Inquiry provides a variety of views of case data entered via the case initiation and case update functions. These views include all cases for an individual who is a litigant in a case, all cases for an individual regardless of role in case, all people/firms registered on ICIS by name, lis pendens, the docket by case, final outcomes for civil and criminal cases, vital records, related people, and related cases.

Case Update

Case Update provides a full range of data entry capability including, but not limited to, papers filed, additional data for return of service, motions, money judgments, criminal disposition, bonds, exhibits, and child support. Features include automatic, user-configurable screen processing in response to case initiation and event docketing; automatic, user-configurable notice generation; tickler item entry; and case status setting in response to event docketing.

Case Initiation

Case Initiation provides four basic types of capability: quick, expanded, vital records, and traffic violation. It automatically generates the next case number for the particular case type being initiated.

Standard Reports

A set of standard reports is provided in addition to *ad hoc* reporting capability. These reports include, but are not limited to, statistics, docket, vital records, and selected criminal cases.

Batch Notices

Batch Notices provides batch generation of the most commonly mailed notices related to case processing. It provides both notice generation and reports of eligible cases for noticing. Optional mailing label printing is also provided.

APPELLATE CASE PROCESSING SUBSYSTEM

The Appellate Case Processing subsystem provides case initiation, update, inquiry, and standard reporting functions for all cases in the Appellate Court system. It encompasses the entire life cycle of a case from receipt of a Notice of Appeal or other initiating document through issuance and acknowledgment of the procedendo. Noticing, Ticking, Scheduling, and Case Financial

Management subsystems are accessible from the Appellate Case Processing subsystem. The major functions of the Appellate Case Processing subsystem are:

- Appellate Case Inquiry
- Appellate Case Initiation
- Appellate Case Update
- Appellate Case Standard Reports

Appellate Case Inquiry

The Inquiry Module provides a variety of view of case data entered by the case initiation and update functions. Examples include: all cases assigned to a particular judge/justice, all people or firms registered in ICIS by name, a summary of a case, a detailed listing of events in a case, and the PIN of an attorney whose name is known.

Appellate Case Initiation

The case initiation module allows a new case to be added to the system based on basic identifying information. This module provides the retrieval of information from the trial court, where required, and automatically generates a case number.

Appellate Case Update

The update module provides a full range of data entry capability at the broad case header level and details of the events that occur throughout the life of the case. This module provides for the maintenance of events having basic data requirements and specific events having unique data requirements. Additionally, it allows certain events, documents, and cases to be tracked throughout the system.

Appellate Case Standard Reports

The standard reports module provides a set of reports including, but not limited to, case summaries, ready lists, motion calendars, and statistical reports.

APPELLATE RECORDS MANAGEMENT SUBSYSTEM

Appellate Records Management contains the module for Bar Registration and Opinion Research. Bar Registration is an exclusive Appellate Court function involving the admission process to the Iowa Bar. Opinion Research requires a specialized text management and retrieval system for full text and keyword searching on both published and non-published opinions. A third-party software package will be used to accommodate the requirements of the Opinions Research portion of the system.

The major functions of this sub-system are:

- Registrant Processing
- Applicant Processing
- Opinion Research

Registrant Processing

The Registrant Processing module provides the ability to add, update, and maintain information regarding a registrant. In addition, this module interacts with both the Tickler and Notice Generation subsystems.

Applicant Processing

The Applicant Processing module provides the ability to add, update, and maintain information about an applicant. This module also interacts with the Tickler and Notice Generation subsystems.

Opinion Research

The Opinion Research function is supported through the use of specialized information retrieval software. This system, which will reside on the SCA system, provides extensive text storage and retrieval capabilities.

The intent of the ICIS Opinion Research requirement is to provide an information retrieval function which is for an interim period prior to the opinions being available on Westlaw. Consequently, after opinions are published, they will be extracted fro m the ICIS word processing Opinion Research database.

This database will be accessible, via the ICIS network, to an authorized Judicial Department personnel. They will be able to search the database using search techniques ranging from simple (i.e., one word) to very complex (i.e., multiple words/phrases connected by various combinations of logical operators such as "and," "or," "not").

The system will report the results of the search and then permit additional searching based on refined search arguments. It will also support the display, browsing, and printing of selected documents or portions of documents.

JUVENILE COURT SERVICES SUBSYSTEM

The Juvenile Court Services (JCS) subsystem provides case inquiry, case update, case initiation, standard reporting and placement resource maintenance functions for the JCS officers. It encompasses the entire life cycle of a case from receipt of referral through the formal or informal probation process until the case is completed. Integrated into JCS Case Processing are the Noticing, Tickler, Scheduling, and Case Financial Management subsystems.
The following standard terms apply throughout the JCS Case Processing module:

- *JCS case* - all referrals of the same case sub-type (i.e., delinquency) received on a given juvenile for a one-day period
- *Incident* - equivalent to an allegation of an offense. Multiple incidents may be included in the referrals that result in a JCS case

The major functions of the JCS subsystem are:

- Placement Resources
- Case Inquiry
- Case Update
- Standard Reports

Placement Resources

Placement Resources provides the capability for maintaining a statewide repository of information on the various placement facilities available within Iowa and in surrounding states.

Case Inquiry

Case Inquiry provides a variety of views of case data entered by the case initiation and case update functions. Sample views include all cases for an individual regardless of role in the case; all people/firms registered on ICIS by name; a general summary of a case; and a history of placements for a given juvenile, a given case, or a given facility.

Case Initiation

Case Initiation provides two methods of initiating a case: a condensed one-page case initiation screen or an expanded version through the use of the appropriate case maintenance screens. Both methods provide automatic generation of the next case number for the particular case type being initiated.

Case Update

Case Update provides a full range of data entry capability covering information at the broad case header level and details of the vents that occur throughout the life of the case.

Standard Reports

A set of standard reports cover:

- Statistical reporting
- Case Management
- Placement tracking
- General summarization of the case

- Hour log statements for restitution and community services
- Tracking of Informal Adjustment Agreement programs
- Restitution financial tracking

CASE FINANCIAL MANAGEMENT SUBSYSTEM

The Case Financial Management (CFM) subsystem is characterized by any and all processes which handle money received or dispersed, related to a case by the Clerk of Court, JCS, Court of Appeals, and all other court entities. In essence, CFM is an accounts receivable (A/R) and accounts payable (A/P) system designed over an underlying double-entry general ledger (GL) system.

The CFM subsystem is divided into the following functional areas:

- Set-Up (Maintain) Accounts Receivable and Accounts Payable
- Pay-Down Accounts Receivable
- Reconcile/Adjust Accounts Receivable
- Pay-Down Accounts Payable
- Reconcile/Adjust Accounts Payable
- Process Periodic (Scheduled)
- Archive/Purge
- Report

As a double-entry ledger system in accordance with Generally Accepted Accounting Practices (GAAP), each financial event (obligation) has a setup (S-U) process journalizing a debit to an accounts receivable (obligor) and a credit to an accounts payable (obligee). Upon receipt of an outstanding (OUT) accounts receivable, a pay-down (P-D) process journalizing a credit to the appropriate A/R and a debit to the associated A/P occurs.

In addition to the set-up and pay-down processes, there are standard reconciliation and adjustment processes for both A/R and A/P. Also, the ability exists to process periodic (i.e., scheduled) A/R and A/P on an outgoing (deferred) basis. Financial management transactions can be archived and purged according to predetermined retention schedules.

Finally, standard Clerk of Court financial reports may be generated for requested periods of time.

Table 5 provides a summary of the function l areas.

Double Entry

The following summarizes the double-entry general ledger design of CFM. Each financial code within CFM is mapped to a predetermined general ledger number. The FL numbers follow a schema defined in the ICIS Requirements Analysis and Master Plan Final Report, January 1987:

1000 - Assets
2000 - Liabilities
3000 - Equities
4000 - Revenues
5000 - Expenses

Financial codes can be identical to the general ledger numbers or can be any customer-defined alphanumeric. More than one unique financial code can be mapped to the same general ledger number for flexibility in reporting. The following rules summarize the use of financial codes:

A financial code equates to a user defined alphanumeric for a "general ledger" number
Every financial code must have a unique GL number defined (e.g., 1-GL:1-FC). More than one financial code may have the same general ledger number defined (e.g., M-FCs:1-GL).

Relationships between financial codes may be defined. One financial code can "trigger" one-to-many other financial code(s) in setting up a schedule of financial transaction(s) (e.g., FCS)
A financial code may be defined for an event sub-type. A docketed event sub-type may "trigger" a financial code in setting up a financial transaction schedule (e.g., 1-ET:1-FC)

Table 5. Setup/Paydown

Set-up (Maintain)		Paydown
FM1000 A-R 1a. Set-up A-R * Schedule * Transaction	FM2000 1b. Pay-down A-R	FM3000 1c. Recon/Adjust A-R * Cash Rcpt Adj * Bad checks
A-P 2a. Set-up A-P * Schedule * Transaction	FM4000 2b. Pay-down A-P * Manual Check	FM5000 1c. Recon/Adjust A-P * Bank Adj
FM6000 3. Process Periodic (Scheduled)		
FM7000 4. Archive/Purge		
FM8000 5. Report		

Financial Relationships

Each financial transaction within CFM must have four "people" or party types explicitly defined:

- OBLIGOR - Party who owes the court money
- OBLIGEE - Party to whom the court owes money
- PAYOR - Party who actually pays the court money
- PAYEE - Party to whom the court actually pays money

Table 6 summarizes the financial relationship between the four "people" types.

Table 6. Financial Relationships

Accounts Receivable	**Accounts Payable**
OBLIGOR	OBLIGEE
PAYOR	PAYEE

SCHEDULING SUBSYSTEM

The Scheduling subsystem is divided into the following functional areas:

- Calendar Generation
- Event Scheduling
- Conflict Checking
- Scheduling System Reports
- Standalone Operations

Calendar Generation

A calendar is generated on request of the user. When a calendar is generated, the system notes holidays, weekends, and normal daily activity (e.g., motion day, jury trials, non-jury trials). Once a calendar has been generated, a scheduler can schedule events.

The ICIS Scheduling System can maintain multiple calendars at a site. Separate calendars can be maintained for Supreme Court, Court of Appeals, District Courts, Magistrate Courts, and Juvenile Courts. District schedules can be separated by county.

After a calendar is generated, the scheduler may add special notes for dates such as conferences or other special events. When the calendar is displayed on a screen, these special notes are highlighted. The scheduler can also flag days for conflict checking (judges' meetings and conferences). If the scheduler tries to schedule a case on these days, the system will display a conflict notice (which the scheduler can override).

Each day has an activity code associated with it. This code designates motion, court, and jury trial days, as well as days with no scheduled activity. If an event is scheduled on a day with an incompatible activity code, the system displays a conflict notice (which the scheduler can override).

Event Scheduling

Events which the user can schedule are divided into the following general categories:

- Case Events
- Personnel Events
- Facility Events
- Reservation Events
- Location Events

Examples of case events are jury and non-jury trials. An example of a personnel event is a judge on vacation. An example of a facility event is a room closed for repairs. A reservation event could be a room or judge reserved for traffic court.

The events which a user can schedule are defined for a site as part of system administration. Event definitions are site-specific.

When scheduling a case, the scheduler enters the case number, the event type, the date and time, and any other information (judge assigned, court personnel, court room) known at the time. Case Scheduling is designed to be flexible. Only a case number, date, time and event code is required. Personnel or room information can be added later. Conflict checking is done when the information is added.

The scheduler can change the information after it has been entered, reschedule a case event, and schedule multi-day cases.

A reservation event allows a scheduler to reserve facilities and personnel for function such as traffic or small claims court. This type of event does not require a specific case number.

Personnel events, such as those that would make a person unavailable for Case Scheduling, can also be scheduled. They can be scheduled for court personnel and attorneys, and are used for conflict-checking with scheduled case events.

A location event specifies the location (county) for a district judge on a particular date. This is used for conflict-checking (e.g., facility location against scheduled location for judge) and for district court schedules.

Facility (rooms and special equipment) events cause a room to be unavailable for use due to repairs or conferences. They are used for conflict-checking with scheduled case events.

The system generates special notices at the user's request when scheduling a case event. A

special system option allows these notices to be printed for cases scheduled within a range of days.

Conflict Checking

Conflict checking for case events is performed at the user's request when the event is scheduled and again if the information has been updated. Groups of events can be checked for conflicts (background) on the current site and at other sites.

There are several types of conflict checking:

- *Day check* - lets the user know if the schedule date is a holiday, on a weekend, or if the day activity code is incompatible with the event.
- *Case check* - checks the other cases scheduled for the same date for personnel conflicts. All people associated with the case (defendants, plaintiffs, attorneys, witnesses, court personnel) are checked for conflicts. This check is performed on all calendars at the site.
- *Personnel checks* - looks for events (vacations) which may conflict with the case schedule.
- *Facility check* - looks for any facility conflicts.
- *Location check* - checks the district judge location events against the facility location.

When the system detects a conflict, a message is displayed describing the conflict. The scheduler may override and perform the schedule anyway or stop the process. If the scheduler overrides, the system will continue searching for other conflicts until all have been resolved. This is necessary in order to schedule an event.

Scheduling System Reports

Table 7 shows the reports generated by the Scheduling System.

The Scheduling Subsystem is capable of operation in a standalone mode. Only the Case Initiation function is necessary to support Standalone Scheduling.

Table 7. Scheduling System Reports

Calendar List	Calendars for day ranges, general calendars, or specific calendars for event types, judges, court personnel, facilities, attorney, or for a specific case
District Judge Schedules	Judges and county assignments
Available Personnel	List of people available for a range of dates
Available Facilities	List of facilities available for a range of dates
District Summary Schedule	Judge and county, dates, and counts of cases assigned

NOTICE GENERATION SUBSYSTEM

The objective of the Notice Generation subsystem is to provide an approach that will allow users of the ICIS to create, modify, and generate a notice document. The subsystem will respond to notice generation requests initiated by other subsystems within Case Processing.

The two major categories within this subsystem are Notice Administration and Notice Generation. Notice Administration enables the user to define and modify a document. Notice Generation enables the user to produce a notice in printed form. A request to general a notice document can be initiated by the following methods:

- *Interactively* - Initiated by the terminal user by logging on to the notice generation online system and building a notice generation transaction.
- *Immediate automatic* - Initiated by a related Case Processing system to produce a notice document in hard copy form at the time of the request.
- *Deferred automatic* - Initiated by either an interactive terminal user or a related Case Processing system and placed on a table (file). Information on the table will be processed during the nightly batch cycle.

The major functions of the Notice Generation subsystem are:

- Notice Creation and Modification
- Interactive Notice Generation
- Immediate Notice Generation
- Deferred Notice Generation

Notice Creation and Modification

The Notice Creation and Modification function provides the ability to introduce a notice document to the Notice Generation subsystem or to adjust the text of an existing document. To introduce a notice, the user enters the text using any word processing system capable of producing an ASCII sequential file. The two classes of text that can be entered into a notice document are non-replaceable text is that which cannot be replaced during the generation of the notice document. Replaceable text, also referred to as keyword parameters, can be replaced during the generation of the notice. A keyword parameter is identified within a document by special characters appearing immediately before and after each keyword parameter. Two types are available within the Notice Generation subsystem: database keyword parameters and user-enterable keyword parameters. A database parameter derives its replacement text from the database. A user-enterable parameter receives its text from the user.

Interactive Notice Generation

The Interactive Notice Generation module provides the ability to produce a hard copy of a requested notice.

Immediate Notice Generation

The Immediate Notice Generation module handles request initiated by one of the Case processing subsystems. The term"immediate" implies that the requested notice will be produced in hard copy form at the time the request is received by the Notice Generation subsystem. The Immediate Notice Generation module will use a subprogram to interface with the various other subsystems within Case Processing, which will then build a notice generation transaction. This transaction is passed to the subprogram to permit the requested processing.

Deferred Notice Generation

The Deferred Notice Generation module also handles notice generation request from other Case Processing subsystems. The term "deferred" implies that the requested notice will be produced during the nightly batch processing cycle. At this time, the module will access a table containing all transactions that have been targeted for deferred processing.

JURY MANAGEMENT SUBSYSTEM

The Jury Management Subsystem is divided into the following functional areas:

- Jury List Maintenance
- Juror Selection and Notification
- Juror Attendance and Tracking

- Jury Fiscal Operations
- Jury Management Reports
- System Administration Jury Management Functions

Jury List Maintenance

Initially, the jury master list is created by merging the list of licensed drivers from the Department of Transportation and the list of registered voters from General Services. Any erroneous data or detected problems are listed in an exception report. The user must manually resolve the problems (e.g., person with necessary data missing). The jury master list is generated at the SCA or Iowa Department of General Services Information Services Division (ISD) computer.

Every two years the jury master list is updated. The latest list of licensed drivers and registered voters is merged with the current state jury master. Any eligible licensed driver or registered voter not currently on the list is added. Any person who does not appear on either list is removed from the jury master. This merge process preserves the jury service information accumulated on the system.

After the master list has been generated, the site jury masters for counties are generated by extracting person with addresses appropriate for the location. The site jury masters are downloaded to the site. After they have been generated, the state master can be archived to save storage on the state computer (if necessary).

The state and site jury masters can be updated. The SCA has update responsibility after the master is generated and before site masters are generated and downloaded. After the site jury masters are downloaded, the site has update responsibility. Update responsibility allows the jury manager to change person status (e.g., set eligible-to-serve status to permanently excused from service) and change a person's demographic area. An address change may require a person to be removed from one site jury master and moved to another.

Juror Selection and Notification

Upon request, the jury management system will create a jury pool and randomly select a specified number of people for the pool. The selected jurors are checked again vital records for a death certificate. When people are selected for a jury pool, they are assigned a three-digit juror sequence number. Sequence numbers are assigned in random order.

Multiple jury pools may exist at a site: jury pools for past periods, a jury pool for the current period, and pools for future periods.

At user request, the system will print juror summons.

If a person selected for jury duty request a deferment of duty or asks to be excused from jury duty, the jury manager enters the request information and the juror's status is set to "pending" until the request is acted upon.

When the judge determines whether or not to grant the deferment, the jury manager enters the information on the system. The person's status is set to active, deferred, or excused, as appropriate. The person may be rescheduled for a specific future jury panel, or he may be returned to the jury master for random selection. At user request, the system will generate notices of deferment status.

Juror Attendance and Tracking

When a person arrives for jury duty, a jury manager registers the juror. At this time, the jury manager may also enter updated demographic data (address, phone) and must enter the mileage for the person. Both an individual check-in procedure and a list check-in procedure are provided.

The jury manager can request a number of jurors to be seated for a case and the system randomly selects from the current jury pool. When the case jury is actually selected, the jury manager enters the juror status (empaneled/alternate) and the remaining jurors are released to the jury pool. The jury manager also enters additional trial information (e.g., trial start, trial end) for the case.

A juror may also request a notice for the employer confirming that the absence from work is due to jury duty. The system will generate these notices with dates and times of jury service and the amount paid to the juror.

Jury Fiscal Operations

When a particular jury pool has completed service, the user requests the system to generate juror payment information. The amount owed the juror is the total of three amounts: daily allowance, mileage allowance, and miscellaneous amount. The jury manager may change the amounts computed by the system and may add a miscellaneous amount. The information is then transferred to Case Financial Management for payment.

Jury Management Reports

The following reports are available from the jury management system on an on-demand basis:

- No Shows
- Jury Pools Reports
- Case Jury Reports
- Juror Service and Attendance Record
- Juror Account Information

System Administration Jury Management Functions

As part of system administration, a user can tailor the Jury Management Subsystem to the site through site configuration. As part of site configuration, the user can set certain system values (juror daily allowance, length of service for jury pools, etc).

The user can also specify certain default values. Default values are displayed on screens to save the user keystrokes when entering data. If the displayed default values are incorrect, the user can overstrike them on data entry.

TICKLER SUBSYSTEM

The Tickler Subsystem is used by both Case Processing and Appellate Processing. The purpose is to automate the process of tracking future events expected or required in a case.

Each case may have one or more tickler items associated with it. Each item is future event for the case and has an owner code associated with it, so that more than one person can have tickler items for an active case. An owner code can be user ID or a user group. A tickler item has an event code which indicates what event should occur, a due date, and (optionally) user entered comments.

The user may manually add tickler items, or may configure the system to automatically add items for a case. Docket events, which are defined as part of case processing, can be configured to automatically add a tickler item. Thus, when a user enters an appropriately configured event on the docket, the system will automatically add a tickler item.

A person may also have tickler items. For example, Bar Registration information needs to be associated with a person.

The user may enter and maintain miscellaneous items. These entries might be notices of meetings, conferences, appointments, etc. Miscellaneous items are automatically deleted when they become past due.

Each tickler item has a status to indicate whether or not the event has occurred. When an item is first added, its status is incomplete. The item status can be updated to complete by the user. The tickler subsystem is designed to allow the computer to determine if an item status is complete. The computer determination is for information purposes only and does not effect the status of the item.

Tickler items can be moved manually or automatically by the subsystem. The user may use a delete process to remove tickler items. The user may also configure events to be automatically purged by the system after a certain length of time past the due date. When the system deletes tickler items, it produces a report of the items deleted.

Each evening the system produces a tickler report of items due the next day. The report is sorted by user ID and event code. When an item reaches its due date with an incomplete status, it is included on the report. Items remain on the report until their status is complete or until they are purged (automatically/manually) from the system.

The user may also request tickler reports online for any range of due dates (past, current, or future).

Each item has an event code associated with it. A standard set of event codes will be supplied with ICIS and the user may tailor the tickler system to the site by adding event codes or changing the standard codes, subject to court policy. Tickler event codes are maintained by the user as part of system administration.

SYSTEM ADMINISTRATION SUBSYSTEM

The major functions included in the System Administration Subsystem are as follows:

- Creation and Maintenance of Code Tables
- Creation and Maintenance of People Tables
- Creation and Maintenance of Security Tables
- End-of-Day Processing

Creation and Maintenance of Code Tables

This function provides creation and maintenance of a number of tables including site information, case sub-types, event sub-types, charge/allegation codes, financial types, and general codes maintenance.

Creation and Maintenance of People Tables

This function provides creation and maintenance of People Tables and indices via people maintenance, indexing people-to-case, indexing people-to-people, people demographics, people physical characteristics, attorney firm definition, bond and surety company definition, judicial profile/conflicts, quick person access, and setting up an on-call duty roster.

Creation and Maintenance of Security Tables

This function provides creation and maintenance of tables that are used for security purposes. The tables allow the definition of a user group and system ID, which are used to determine if a user has access to the function he/she is attempting to use.

End-of-Day Processing

End-of-day processing consists of three processes: data archive, data purge, and data distribution.

SECTION 4. ICIS PEOPLE AND CASE IDENTIFIERS

OVERVIEW

Each person who is recorded in the ICIS data base has a set of descriptive information (i.e., name, address, date of birth, etc.). This information must include a unique identifier, sometimes called a key, so that persons with identical/similar names, addresses, etc., can be identified. Consequently, an ICIS Personal Identification Number (PIN) scheme was devised.

ICIS PERSONAL IDENTIFICATION NUMBER

The ICIS database stores basic person information in a table called ”people header”. It stores basic case information in a table called “case header”. Additional person and case data is stored in other tables which are linked to either the case or people header so that all information can be accessed as needed. Another table called the case/people index is used by ICIS to link people to cases and vice versa.

Whenever a person is initially entered into ICIS, a PIN will be assigned. If the person’s Social Security Number (SSN) is known, it will be entered and will serve as the PIN. If the SSN is not known, ICIS will generate a unique identifier to serve as the PIN.

For an ICIS-generated PIN, the first two characters will be the county alpha identifier (i.e., AP = Appanoose) with the remaining seven characters sequential.

The ICIS design will not allow duplicate PINs to be recorded. Consequently, any PIN will only identify the descriptive information for one person, thus, unique identification is achieved.

However, while one PIN cannot identify more than one person, one person can have more than one PIN.

This can happen because once a PIN is assigned to a person, it will never be deleted or re-assigned even if it is later discovered that the person should have a different PIN. For example, a person may initially be given a system-assigned PIN because the SSN is not known. Later the SSN becomes known and is entered as the PIN for that person. The initial system-assigned PIN is retained and can still be used to search for an identify that person. This is necessary because documents identified with the initial PIN may still need to be processed.

When multiple PIN conditions occur, one of the PINs, preferably the SSN, will become primary with the other(s) becoming secondary. The SSN is preferable because it is such a common and universal identifier that it will often be known or available to an ICIS user needing to access people information. For this reason, it should be entered whenever it becomes known even though it is not mandatory.

Not only is it possible to have multiple PINs for one person, but it is also possible to have more than one set of descriptive information (i.e., name, address, etc.) for the same person. This

condition can occur when a person has been involved in more than one case and papers used to file the cases have different descriptive data. ICIS design requires that the ICIS version match the version continued on the filing documents, on a case-by-case basis. A couple of examples should clarify this matter:

- *Example 1* - A person has been involved in more than one case and has been entered into ICIS with different descriptive data (i.e., J. Doe and J.R. Doe). It is later discovered that this is the same person. The ICIS design will allow the combining of the two sets of descriptive information so that there is a "same name" context. One of the two PINs that had been assigned will become the primary and it will point to the primary set of descriptive data. However, each set of descriptive data will be retained and associated with its specific case.
- Example 2 - A person is being added to a case. This person already exists in the ICIS database but the document being used to add that person to this case contains different descriptive data than had been previously recorded (e.g., 123 5th Avenue versus 123 Hwy 5). ICIS will need to establish a secondary record for this person, which is identified by a secondary, system-generated PIN, even though the person's SSN is known. In this case, the secondary PIN is used only as an ICIS internal mechanism to point to the secondary record and should never appear outside the system. That is, whenever ICIS displays or prints information about any person, it will show the primary PIN.

ICIS SEARCH PROCEDURE

When an ICIS user is trying to locate a person in the database, he or she may be searching from one of two directions - the case direction or the person direction.

- *Case direction* - When the case number is known, the user need only enter the case number in the appropriate place on the screen and the system will proceed to display all persons associated with that case so that the right one can be selected.

- *Person direction* - In this case, the name or PIN must be known. If the PIN is known, entering it will immediately access a person's data. If only the name is known, entering it will display all person possibilities (e.g., John Doe, J.R. Doe). The ICIS user will need to select the appropriate one by viewing additional information (i.e., address, date of birth, sex, etc.).

ICIS CASE NUMBER

Each ICIS case is assigned a case number during the case initiation process. This case number is a unique value which provides absolute identification of one specific case.

SECTION 5. DATABASE/FILE DESIGN

OVERVIEW

ORACLE is the Relational Database Management System (RDBMS) on which the ICIS application will process. ORACLE supports access to database files utilizing a fourth-generation language with support for third-generation programming languages and *ad hoc* reporting facility.

The database/file design has evolved by using a three-level data architecture approach to analyzing data and relationships. This approach demands that information be viewed in three distinct but integrated areas:

- External - The external schematic describes the user's view of the data. This is represented by data flow diagrams and external entities that transform into screens, reports, and batch processes.

- Conceptual - Using the external schematic, a conceptual schematic was developed that represents an application view of the data. This view shows entity relationships and identifies data access as it applies to the system.

- Internal - The internal schematic represents how the data is actually implemented. This approach takes into consideration physical implications, control requirements, and performance needs.

DATABASE OBJECTIVES

Database/File Design enables the system to accomplish the following objectives:

- Flexibility - The system must be flexible enough to provide for future expansion, modification, and added functionality.

- Uniformity - The database/file design is replicated at the various user levels. The exact processing procedure performed at one location can be performed at any location identified by the State. This uniformity enforces the adherence to the standard procedures performed throughout the State.

- Performance - To achieve the desired performance level, the capabilities of searching the database quickly and providing the best physical structure becomes extremely important. All data entry and inquiry allows for the most optimal access route.

- Database Security, Privacy and Integrity - Other inherent characteristics of the database/file design provide for security, privacy, and integrity of data.

The protection of the data in the database against unauthorized or accidental disclosure,

alteration, or destruction is minimized with a three-tier security approach. Realizing that perfect security is unattainable, the objective of data security is to minimize the risk and probability of loss and disclosure to the appropriate level.

Unscheduled data interruptions (i.e., power failure, system malfunction) can potentially corrupt the status of the database. ORACLE ensures database integrity in these instances by providing a built-in “roll-back” facility that allows the processing of the transaction as it appeared before the interruption.

Concurrence control is handled by a built-in “data locking” facility. This facility locks access to a table or part of a table during an update session, ensuring data integrity during simultaneous access.

SECTION 6. ICIS SYSTEM SECURITY

OVERVIEW

A three-level approach protects the ICIS database against unauthorized or accidental disclosure, alteration, or destruction. Security operates at the following levels:

- Operating system
- ORACLE
- Application

OPERATING SYSTEM LEVEL

The operating system offers security by restricting access only to authorized system users registered with valid user IDs and passwords. After this validation, an application (including ICIS) or system function can be accessed depending on the privileges assigned to the user at this level. The user can be given selection latitude or be directly connected to his or her functional area.

ORACLE LEVEL

ORACLE provides two independent mechanisms for database security: the authentication subsystem and the authorization subsystem.

The authentication subsystem requires a valid user name and correct associated password in order to log on to ICIS applications. Both user name and password are checked before permitting access to the system.

The authorization subsystem grants access to validated ICIS users through simple GRANT/REVOKE commands which specify privilege levels to access the system:

- *DBA privileges (System Administrators)* - allow *all* database privileges including access to any user's data, ability to grant or revoke user database access, and control of system-wide auditing. After assigning the user an ORACLE user name and password, the DBA can grant or restrict the user database access by assigning a combination of the remaining two privileges.

- *Resource privileges (Developers)* - Allow users to create Tables and indices, and grant or revoke privileges to other users of their data.

- *Connect privileges (Users)* - Allow users to access ORACLE, query other users' data, and update other user's data (if permitted by the application).

APPLICATION LEVEL

Within ICIS, authorization to access screens or procedures is granted to users depending on their assigned user ID, user group, or security level. Access to these processes will be granted or denied by:

- Controlling intra-system access to Finance/Personnel and Case Processing screens through the use of system menus and user group designators (i.e., screen level permissions granted to specific users).

- Controlling data access within a screen by developing views that can grant or deny access to specific data depending on user ID and security level (i.e., controlling the data view within the screen for a specific user or user group).

  Example: For a person to be able to view (display) salary data, he or she must pass the following security checks:

  1. Get connected to the computer system. The person must have physical access to a device (i.e., terminal, personal computer) which can be electronically connected either by direct cable or dial-up through the phone system. If dial-up is used, the person must know the phone number. The person must then enter a valid user ID and a password, which indicates that he or she has authorization to be connected.

  2. Once connected to the system, the person must then indicate, via a menu selection, that he or she wants to use the ICIS application software. An internal check will then be made to ensure that the entered user ID has authority to use ICIS.

  3. Once into ICIS, the person must indicate, via menu selection, that he or she wants to use the Personnel subsystem. If that user ID has not been authorized to use Personnel, access will be denied.

  4. Once into Personnel, the person must indicate the wish to execute a function that has been designed to display salary data. Again, access will be denied if the user ID is not authorized.

  5. Within the Case Processing subsystem, if the user's security level is less than the case security level, or if the user is not authorized to process the case sub-type, access to the data will be denied.

  6. In the System Administration subsystem, only users assigned the highest security level will be allowed to delete system administration information (coded values, case sub-types, charge codes, etc.) once this data has been established.

SECTION 7. DATA DISTRIBUTION

OVERVIEW

The primary mechanism for moving data within the ICIS network is the ORACLE product, SQL*NET. SQL*NET provides distributed processing by allowing the execution of an application on a system other than the one which holds the database. Data, entire tables, or selected portions can be transferred from one ORACLE database to another via SQL*NET.

Data required to be transferred to/from systems outside the ICIS network (i.e., other state agencies) will be via the SNA link to the SCA system for electronic transfer of data. Request will be assigned a transaction ID and placed in the proper transaction file. As part of the nightly batch processing, these transaction files will be transferred to the SCA system and then to the appropriate external system.

The People Index at the State level is updated as people data is changed at the County level. The Case People Index is built and updated at all levels as litigants (plaintiffs or defendants) are indexed to a case. These index updates are done immediately at the local level and are accomplished during end-of-day processing at the higher levels. The effect of the updates will not be seen at the higher levels (i.e., district and county) until the next day.

CRIMINAL/CIVIL PROCESSING

For new cases, an inquiry to the local district people file or State People Index can be initiated to determine if the person(s) has been entered into ICIS. If located, a copy of the people demographic data can be requested and transferred form the District system to the requesting County.

Each district system will have a mirror image of each of its own county's people/case data. This data will be uploaded to the District on all new and updated cases. All new names, modified names, and new case IDs will be uploaded to the SCA system to the People Index, Case_People Index, and PIN_Change Index.

On deferred judgments, the record from the Disposition table is placed in the Defer_Judge_Transaction Table and sent to the SCA system as part of the nightly batch processing.

Noticing, as a result of non-compliance, suspension, payment receipt, and suspension W/D of traffic tickets are placed in the DOT_Transaction Table and sent to the Department of Transportation (DOT).

JUVENILE COURT SERVICES

On new cases for JCS, an inquiry to the local district people file or State People_Index can be initiated to determine if the juvenile has been entered into ICIS. If located, a copy of

demographic data can be requested and transferred from the District system to the requesting County.

Each District system will have a mirror image of each of its own County's people/case data. This data will be uploaded to the District on all new and updated cases.

All new names, modified names, and new cases IDS will be uploaded to the SCA system to the People Index, Case_People Index, and PIN_Change Index.

JCS will be able to inquire against the Placement Resources Tables located at the State-level system. This table is built and maintained on the SCA system.

APPEALS

If an appeal occurs, the data in the Appeals_Dist_Ct and Appeals_Dist_Ct_Papers Tables are uploaded to the SCA system for processing by the Appellate Courts.

The Appellate Court may need to inquire back to the District Level for docket information.

If any attorney is named a defendant in a criminal case, the Case ID, PIN number, and Adjudication will be uploaded to the SCA system for review by the Appellate Courts.

CHILD SUPPORT

Information to be provided at a later date.

SECTION 8. INTERFACES WITH ICIS

OVERVIEW