EMERGING TECHNOLOGIES AND COMMUNITY CORRECTIONS

by

THE AMERICAN CORRECTIONAL ASSOCIATION
8025 Laurel Lakes Court
Laurel, Maryland 20707

in conjunction with

THE NATIONAL INSTITUTE OF CORRECTIONS
320 First Street, N.W.
Washington, D.C. 20534

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AMERICAN CORRECTIONAL ASSOCIATION

Samuel Sublett, Jr.
President

Anthony P. Travisono
Executive Director

John J. Greene, III
Director
Training and Contracts

John A. Minor, Ed.D.
Project Director

Pennell E. Paugh, M.A.
Assistant Project Manager

NATIONAL INSTITUTE OF CORRECTIONS

GRANT NO. 88C04GGY8

David Dillingham
Correctional Program Specialist

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Introduction

For a number of years, state and local correctional agencies and governmental bodies have been under increasing pressure to supervise more offenders than they have had staff or space to accommodate. Rising crime rates and public demands for retribution have led to prison crowding. The American correctional population has reached a record high (Bureau of Justice Statistics Bulletin, April 23, 1989). Since 1970, the rate of imprisonment has more than doubled, and this rate is likely to keep climbing. The National Council on Crime & Delinquency (NCCD) projects the rate of imprisonment to rise another seven percent by 1993. (Focus, April 1988)

Prisons are criticized because they cost too much and do too little. There is a growing recognition that confinement in penal institutions leads to a criminal self image and encourages the individual to assimilate into a criminal subculture. This general discontent with ineffective rehabilitation programs in prisons has led to the emergence of community corrections as an expanding area of corrections. In their recent paper, It's About Time, John Irwin and James

Austin (n.d.) report that three quarters of the 3.2 million men and women under supervision are in our communities. Furthermore, the number of persons under community correctional supervision has been growing at a more rapid rate than the number of persons committed to prisons ("Probation and Parole," 1986).

NCCD maintains that efforts to control prison crowding will overload the parole system. (Focus, April 1988) Nearly 40 correctional systems are currently under court order for issues related to crowding and deteriorating conditions of confinement (National Institute of Justice, 1986). As a result, offenders are being released in greater numbers and are under supervision for longer periods of time. (Focus, April 1988) Magnifying these problems is the public's call for harsher punishment and for more control of offenders who are serving their sentences in the community. (Fogg, February 1988; Irwin & Austin, n.d.) This "imprisonment binge" (Irwin & Austin, n.d.) is costly, both in terms of dollars and human resources.

The search for a greater variety of alternatives to correctional care has led to consideration of a variety of new sanctions and technologies for supervising offenders in our communities. In this report, the American Correctional Association (ACA), in conjunction with a panel of experienced

community corrections' professionals, explores current and potential technological innovations that might enable community corrections programs to function more effectively. This is an exploratory report; as such it is not intended to be a complete survey of every technology that might be applied to community corrections. The report's intent is to assist those working in community corrections by identifying "tools" that may be helpful to their programs, and to highlight concerns and problems that may appear when new technologies are applied.

Project Objectives

This report will:

- identify and examine technologies currently used in community corrections;

- describe the application of these technologies in community corrections and focus, where possible, on cost/benefits, efficacy in controlling offenders, and impact on staff, offenders, and agency operations;

- identify and examine emerging technologies that may soon be available to community corrections; and

- outline the implications these technologies have for community corrections in policy, program development, and management practices.

Procedures Used in This Project

This project was jointly sponsored by the National Institute of Corrections (NIC) and the American Correctional Association (ACA). The method used was to form a "Peer Review Panel" of professionals working in the field of community corrections. The Panel convened twice. On both occasions, guests were invited from the private and public sectors. They spoke on topics related to community corrections and technology. The interchange between Panel members and speakers gave direction to this project. ACA's staff reviewed published materials and interviewed practitioners who were using state-of-the-art technologies in the field. A draft report was reviewed by the Panel; its revision resulted in this final report. (See Appendix I.A for a complete list of Peer Review Panel members.)

Definition of Terms

Community corrections: Services and programs provided to offenders who are not confined in jails or prisons. This includes, but is not limited to, traditional probation, parole, intensive nonresidential programs, residential services, and special programs related to court or institution services. These programs and services may be provided by governmental agencies (federal, state, county, or municipal), or by privately operated agencies.

Technology: The Peer Panel found the term, "technology," difficult to define. "Technology" is defined in Webster's Dictionary as "a scientific method of achieving a practical purpose." A related term, "technological," is defined as "resulting from improvements in technical processes that increase productivity of machines and eliminates manual operations or operations done by older machines." For this report, the Peer Review Panel agreed to define "technology" as the application of new knowledge and products to solve problems. The term refers to items that make the job of community corrections easier. Such items may take the form of hardware, software, or services.

Time frame covered by this study: This project's time boundaries begin in the present and extend to the end of this century.

Historical Perspective

Historically, community corrections has not generated enough public interest to produce government grants for the research and development of its own technologies. Nor has community corrections been able to attract profit-motivated organizations to develop new products aimed at improving the management of offenders in the community. (For comparison, look at the criminal justice areas of prison construction and law enforcement, where large budgets are routinely approved. New products to build new prisons cheaper and faster, and new crime detection products are constantly being introduced.)

Being low on the priority list has caused community programs' managers wanting to improve their programs, to adapt technology which had been developed for use in other industries. The major application of new technology in community corrections has been to the work of producing written documents and to the management of agency budgets.

For example, the work of producing letters and written reports has evolved through the series of "new" machines. Early this century, the manual typewriter replaced the ink pen as the primary writing tool. The manual typewriter was replaced by an electric powered model, which in turn was replaced by an electronic typewriter. This typewriter allowed the operator to make corrections in the machine rather than on the paper. Additionally, the electronic typewriter stored

short documents, typing corrected copies automatically. Electronic typewriters are now being replaced by the word processor. Today, word processors seem to do everything. They correct our spelling, grammar, and typing, merge separate documents, type names and addresses on labels, produce personalized form letters and automatically complete many other clerical tasks, too numerous to list.

In the area of financial administration, accounting information, budget management, and payroll procedures have progressed from "hand written" to printed ledgers prepared with the help of a "calculating machine," (a new technology at one time). The first automatic, or computerized financial statements, were periodic reports produced from information stored, with calculations made on a "mainframe" computer. Today, the state-of-the-art is an "on line" (instant input and output) computer system that makes electronic reports that are produced on "terminals" located on the employee's desk.

Dictating equipment has almost entirely replaced the stenographer, and the office photocopier has taken the place of carbon paper, onion skin copies, stencils, and ditto machines.

The word processor can store and print a standard report form. The numbers to be entered on the form can be easily generated by programs in the word processor. The manager can then dictate the new numbers to be filled in, and from these

numbers, derive summaries and conclusions. The format of the report and variables measured are consistent from report to report. This helps the manager compare current figures to those in previous reports; thereby observing trends and pinpointing problem areas. A secretary can fill in the information as dictated, upon the standard form stored in the word processor, and the word processor then produces a publishable report. Together, dictation equipment and word processing make it possible for managers to write progress papers, such as annual reports, in hours; documents that used to involve several days to research, calculate and write. (Mason, 1989)

Current and Emerging Developments

Today, developments in technology applicable to community corrections has spread beyond office operations into field operations. The areas of offender supervision and community residential center management are the focus in "new" technology.

Let us consider the relatively recent expanded use of communications systems as tools in community corrections. Emerging is a blend of written and telephonic communications into a unified procedure. On-line computers are connected by telephone technology with state, national, and worldwide networks.

It is no longer necessary to post express mail; we FAX rush mail over telephone lines. We anticipate electronic mail (letters written into an electronic format) transmitted by satellite, will replace letters written on paper.

Equipment currently in production has the potential to automate the routine portion of offender supervision. One version of this equipment can monitor and record an offender's location in the community. Another version can identify an offender's voice over the phone, ask questions relevant to the offender's supervision requirements, and record the offender's answers into a periodic supervision report.

The Peer Review Panel expects technological growth to occur in six areas: chemical use detection, offender identification, offender support, location reports, caseload management, and staff support (see Table 1). While continued expansion of new technology is anticipated in office operations, developments in these additional six areas are expected to dramatically influence community corrections.

This report identifies and describes changes that have recently occurred, or will soon take place, in the areas of computerization, videos and other devices, physiological approaches and social science.

A. COMPUTERIZATION

Computer technology is now available that can train staff, provide information quickly to management, and allow administrators to model or simulate outcomes of alternative preventive approaches and strategies.

Information science is an area that promises to reshape the overall management of the criminal justice system. Data aggregation, storage, and processing systems (known as information technology), offer almost unlimited possibilities for aggregating and sharing information.

TABLE I
SPECIFIC TECHNOLOGIES EXPECTED TO
INFLUENCE COMMUNITY CORRECTIONS

	CHEMICAL USE DETECTION	OFFENDER ID	OFFENDER SUPPORT	LOCATION REPORTS	CASELOAD MANAGEMENT	STAFF SUPPORT
COMPUTERS	* Remote Breath Test (Result telephoned to monitor computer)	* Electronic Fingerprint ID * Computer Fingerprint Matching * DNA Typing	* Education Computer-Assisted Screening Tests Placement Tests Instruction	* Electronic Monitor (1 site) * Computer Monitored Offender Phone Reports Electronic Monitor w/ Satellite Tracking (covers an area)	* Computer Managed Risk Assessment * Access to National Criminal History Database	* Mobile Telephones * Radios * Computers Debt Collection Service * Computer Bar Code for Automated Data
VIDEO			* Education Computer-Assisted Screening Tests Placement Tests Instruction			
PHYSIOLOGICAL APPROACHES	* Field Kit Test Urine=Drugs Breath=Alcohol * Remote Breath Test Hair Analysis for Drug Use over Time	* DNA Typing	* Drug Treatment Antabuse Depo-Provera			
SOCIAL SCIENCE PRACTICE & RESEARCH	* Field Kit Test Urine=Drugs Breath=Alcohol * Remote Breath Test Hair Analysis for Drug Use over Time	* DNA Typing	* Drug Treatment Antabuse Depo-Provera * Education Computer-Assisted Screening Tests Placement Tests Instruction		* Computer Managed Risk Assessment * Access to National Criminal History Database	
OTHER DEVICES						* Less than Lethal Weapons

* = currently in use

To use information technology efficiently, local and state jurisdictions will have to cooperatively generate and use information. Information technology makes it feasible for jurisdictions and agencies to evaluate both their individual and their shared population trend information. (See Appendix II for samples of criminal justice computer training labs.)

1. Innovations in Educational and Vocational Programs

Research shows that community corrections is no more successful than institutions in reducing recidivism. One reason may be attributed to a lack of educational and vocational programs while offenders are in community-based correctional programs. (Lawrence, August 1985) To fill this gap, computers could be used to greatly improve community-based vocational and educational programs for offenders.

In the 1950s, B. F. Skinner designed the first teaching machines for use in schools. These machines have proven very effective. For example, in an early experiment in Virginia, a ninth grade class learned a year's algebra in six months.

Today computers are being used in almost every school in the nation. On the average, each school has about 25 computers, or about one per teacher. (Cook, February 1989) Predesigned computer-assisted instructional curricula are available for most grade levels. These meet most State

educational standards. Their contents are coordinated with State approved textbooks, materials and standardized tests. (Waldron, et. al., 1987)

As of 1987, there were about 10,000 courseware products being marketed by 900 firms, covering most subject areas and grade levels. Additionally, about 12 companies have produced "integrated learning systems," which are complete instructional systems. They include placement tests, lesson plans, management systems, progress reports for teachers and extensive curricula that can extend over several years. (Cook, 1989)

Computer-assisted instruction (CAI) includes "computer-based instruction," in which a learner is placed in an interactive relation to a computer that has been pre-programmed with a specific sequence of activities. "Computer-managed instruction," maintains student records and provides student evaluations. Both the computer and learner control the pace of instructional activities. The computer will decide to repeat materials based on the accuracy of the student's responses. At the end of a sequence, the computer calculates a score and records it. A record for every student is maintained and can be reviewed periodically by teachers and students. These systems allow the pupil to learn at his/her own pace, while providing researchers with data and teachers with reports that assist them in understanding and managing each

student and the classroom. (Cook, 1989; Waldron, et. al., 1987)

CAI has great potential for applications in the criminal justice system in the areas of offender education and criminal justice training. For these applications, three types of programs can be used: 1) tutorial, 2) drill and practice and 3) simulation.

Tutorial Courseware

Tutorial courseware is totally self explanatory once it has been loaded. Thus, an employee or offender may, theoretically, learn whenever he or she has free time, without having to fit into an instructor's schedule. (Waldron, et. al., 1987)

Drill and Practice Courseware

Drill and practice courseware provides practice materials which are then tested until a pre-determined level of achievement has been reached. The program then presents more difficult practice materials followed by more drills. Such courseware does not teach concepts, but is used in conjunction with traditional instruction methods. However, drill and practice provides an excellent review of concepts previously taught by a teacher. (Waldron, et. al., 1987)

The offender population is characterized by special problems: illiteracy, learning disabilities, and lack of independent study skills. Use of tutorial and drill and practice courseware can assist teachers to individualize instruction to meet special needs. (Waldron, et. al., 1987)

Studies have also shown that offenders like to practice on terminals. The machines are patient; students can repeat material as often as need, without embarrassment. Offenders also like the fact that CAI is nonthreatening. A computer terminal never labels the student as stupid. ("Helping Inmates Learn," December 30, 1984) Examples of CAI in correctional programs are listed in Correctional Education Association's, Learning Behind Bars, 1989)

Simulation Courseware

Simulation courseware has potential uses in training and decision-making as well as education. It provides experience without the expense or danger of full-scale mockups. Example simulations include firearms practice, possible programmatic alternatives and instruction in basic education courses.

These programs could potentially be used by community corrections to train staff, to plan programs and to teach educational material that is conceptually difficult to grasp.

Programs could include a life skills curricula that would provide practical simulations of problems, and suggested solutions that typically occur in an offender's life. (Waldron, et. al., 1987)

Micro and Minicomputers

CAI software can be loaded into mainframe, micro, or minicomputers. Micro and minicomputers cost a fraction of what mainframe computers cost, and they permit constant curriculum adjustments to meet each student's needs. Hardware and software development and maintenance costs are less for micro/minicomputers than for mainframes. Micros and minis are often networked into systems and accessed through terminals. Most micro/minicomputers use computer languages that are relatively easy to learn and provide the option of instructor-prepared activities. (Waldron, et. al., 1987)

Comprehensive and Standardized Programs

Typical of any system, computer learning can be optimized when linked with a comprehensive learning model and operationalized educational standards. Michigan's prison system has one such system. Twelve years ago, the Michigan prison system created an educational program based on criterion-referenced instruction. Students were required to master articulated objectives before moving to higher levels. A statewide standardized system provided continuity to students

when they transferred from one program to another. This enabled them to move along sequentially as they fulfilled course requirements, wherever they went. (Mohler, 1986)

Satellite Educational Services

Equally important are satellite educational services that provide focus to learning through television. Adult Learning Satellite Service offers a full range of programming to the higher educational community, provides special events and previews opportunities geared toward the needs of colleges, including telecourses, seminars, workshops, forums, and lectures by renowned scholars and authors. Such a service could be programmed to offer educational material to offenders in community corrections. People sentenced to home arrest could attend classes while remaining at home.

Interactive Video

Interactive video has slowly been evolving. These devices which connect video and computer technology, offer interactive learning, lifestyle simulations, modeling and performance testing. This instructional technology can produce: 1) less clerical work for instructors and trainers; 2) increased achievement by pupils; 3) interesting and stimulating instructional materials; 4) more efficient testing of what pupils accomplish; 5) an increase in pupil comprehension by transforming one form of representation to another, or by

presenting materials in varied ways; and 6) improved reasoning abilities by permitting medias to be combined which use different brain functions. (DeBlocis, February 1988)

An example is an interactive video computer learning system being piloted at Michigan's Dunes Correctional Facility, a medium security prison in Holland, Michigan. This system uses a computer, video player and television monitor to provide individualized, competency-based, self-paced instruction accompanied by videotaped demonstrations. (Mohler, 1986)

Other programs emphasize the development of problem-solving skills. Students collect and organize data on events, such as the weather. They then use a central computer to summarize data and to create charts and maps. Use of such a database can teach students to recognize when information is sufficient to solve specific problems, understand if data is relevant to the solution of given problems and to discriminate between efficient and inefficient organizations of information in the solution of problems. (Cook, 1989)

Intelligent Computer Instruction

Soon to emerge from computer development labs are Intelligent Computer-Assisted Instruction (ICAI) and Intelligent Tutoring Systems (ITS) (Cook, 1989). These systems will not only keep track of how the student responds to test materials, summarizing this data intelligently, they also

will be able to conduct tutorial conversations based on the information they will collect on the individual. (Waldron, et. al., 1987)

Also in the future, computers will transform print into sound to instruct young people to read and write, to teach English as a second language to adults and to assist the blind. (Cook, 1989)

Interactive Videodisc Training and Education

Currently an expensive teaching tool, the interactive videodisc, is becoming sufficiently popular as a training tool in the private sector and in the military, that it should soon be more affordable. In technical terms, an interactive videodisc unit has an optical disc which records signals. A laser-read videodisc, when added to the capabilities of a computer, permits instant access to large textual, visual and audio databases.

Pre-designed text and graphic screens can be retrieved in a pattern that is determined by the learner through frequent and continued interventions. The system responds instantly to learner input, offers a scope, rate, sequence, style and sophistication level that is determined by a dialogue between the pupil and the system. As the pupil interacts, the system responds with feedback, instructional sequences, or additional options that are suited to each student's interest, ability, preferred style, pace and language.

A matrix design allows flexibility of programming. Earlier, less sophisticated systems only provided information in sequence patterns that could not be varied from student to student. With videodisc equipment, the participant can vary the speed of the lesson, play back any portion for review, freeze an image for longer study, or skip unneeded portions. In short, the student can exercise control over the material. Current educational applications of interactive videodiscs include low-level knowledge transmission to skill development and high-level, action/ consequence simulations of complex problem-solving situations. New productivity tools (authoring languages, computer-generated graphics and improved video editing systems) can be used to produce exciting, effective training and educational programs at lower costs. In fact, interactive systems claim to decrease instructional costs per student, per unit of instruction from traditional methods of teaching. (DeBloois, February 1988)

In the immediate future, interactive videodiscs will be interconnected with expert systems. The computer will examine each pupil's input and query its knowledge base for rules or specifications relating to the lesson and the learner's responses. It will then use those rules to present the student with an appropriate set of instructional cues.

2. Accounting

Courts, in some areas of the country, have turned the collection of fines and other payments over to banks and collection agencies. These organizations use automated technology and related procedures to record payments, keep track of payment accounts, follow-up on non-payers, make proper distribution of the money collected, and produce individual account reports. Such accounting systems have greatly eased the workload of court systems. (Byers, 1988)

3. Identification, Inventory and Security

Today, the matter of creating identification cards is simple and painless. An instant, color photograph of excellent quality, can be produced and laminated in minutes. A bar code, an innovation adapted from retail stores, can also be quickly and easily attached to an ID card. With the sweep of a scanner, this minor addition to IDs has revolutionized data entry. While relieving staff of the tedium of manual data entry, bar codes assure that data is accurately and reliably entered into an on-line computer system. (Maryland's, Prince George's County Jail currently uses such a system and is favorably impressed with this technology.)

In community residential programs, bar code IDs can be used to keep track of a wide variety of data including everyone's entries and exits, offenders' management of funds, and

results of drug and alcohol tests. They can permit secure areas to be opened by authorized individuals, and will sound an alarm if unauthorized persons leave secure areas. (Mason, 1989)

Bar code identification can be used, by corrections officers and line staff, in residential centers to retrieve and make entries in offenders' files. During an interview or meeting with an offender, a staff member might run a scanner over the offender's ID and touch one of several bar codes listed on a menu that represents the purposes of meetings, such as monthly reports or employment counseling interviews.

A menu can easily be created for the types of records and reports that are kept by a program. This can include records for monthly reports; reported law or technical violations by offenders; and surveillance and drug test records.

During a meeting, supervision objectives, resources, activities, and time frames for completion, when worked out with the offender, can be entered into the computer and the computer will then remind staff of due dates. At a meeting's conclusion, the time can be automatically recorded when the offender's ID is scanned.

To keep track of drug tests, both for individuals and for the agency's entire population, staff can paste a sticker with the offender's bar code ID on the urine sample container. The offender's ID code, and a second code already on

the container (that identifies the laboratory conducting the tests and the drugs being screened), is scanned by the computer. When the laboratory finishes drug screening, the results are entered into the computer and transmitted electronically to the corrections agency's information management system. A list of positive test results is presented immediately for staff attention.

Employees can enter an offender's ID number and, selecting from a menu of options, may press a button to see summaries of one or more reports or records for a particular offender. Similarly, field managers and supervisors can retrieve summary reports that tell them how many and what kinds of offenders each line staff manages, how often meetings are held, how long meetings last, and how much of the staff's time is spent working in direct contact with offenders. From this base of information, future staff requirements can be projected, and training programs designed around problem areas that are identified.

Thus, through bar code ID scanning, data input for computer-based information systems is greatly simplified, security is facilitated, and, using the information collected, the program's administrator can track the degree to which procedures are followed as well as the entire agency's progress towards stated goals. Managers can monitor individual programs and can optimally manage a large staff. Line-staff can easily monitor, evaluate and provide feedback

regarding each offender's drug and alcohol abuse, progress towards personal and agency goals, money management, restitution payments, and daily activities.

In the manufacturing industry, bar codes are used to track an individual part, or product, as it proceeds through the manufacturing process. In community residential programs, bar codes could, if attached to all equipment and furniture, easily keep track of an agency's inventory. Another security tool, commonly seen in libraries and book stores, uses magnets. When unauthorized objects are taken through a gate at the building's entrance, an alarm is tripped.

Recent advances in microchip design are being used in security systems to verify the identity of persons seeking access to controlled or classified data and to secured areas. Included are devices which read finger- and voice-prints, palm prints, hand geometry, and retinal blood vessel patterns. These systems, as they are perfected, will assure better personal identification than photo-bar code IDs, particularly in facilities that have high staff and/or offender turnover, making visual recognition uncertain.

Computer-based information systems have been used for years in community corrections' field operations and offender management programs. However, getting complete and accurate data into systems has been a chronic problem. (Montgomery County, Maryland and Fairfax County, Virginia both have

countywide, mainframe computers to collect and manage police, court, probation and parole information. (See Appendix I.B for a sample of Arizona's Probation Management Information System) These systems were first designed to provide information for research and top level management; information that few employees could understand or use. In many cases, data entry procedures were added to staff manual reporting requirements. For line staff it meant more work, and few benefits. Data entry and data accuracy were often not treated as important by staff, who resented the added work.

Virtually every court that has examined the issue of data quality in the criminal justice system, has held the criminal justice agency responsible for maintaining complete criminal history records. If failure to implement procedures related to good quality information should cause some tangible harm to a person when their records are used or disseminated, the responsible agency may be held liable for damages. (Office of Technology Assessment, May 1988)

Early systems also had problems related to the timeliness of the information produced. Many only provided information about total agency operations, distributing them in periodic reports that were out of date by the time anyone received them.

Potentially, biological identification could be merged with mainframe computer and bar code technology, to facilitate accurate, timely data input, making development of a

nationwide cooperative offender records system at federal, state and local levels. Records of offenders could follow wherever they have moved. Using a mainframe system, agency information, such as court verdicts and sentences, could be encoded and placed on a menu. Up-to-date information could then be quickly added to an offender's record by scanning his/her bar code ID or typing in the ID number, and then scanning applicable entries displayed on the screen in menu format. Telecommunication components of automated systems might also be added for timely reporting of arrests and dispositions. Such systems have been shown to be easy to manage, as well as economical and reliable to run. (Office of Technology Assessment, May 1988; Office of Juvenile Justice and Delinquency Prevention, n.d.)

4. Management and Long Range Planning with Information Technology

Today, the automation and computerization of information functions have become commonplace, in even small justice agencies. Parole and probation officers now can carry small, "laptop" computers which store their records and free up their time to spend handling heavy caseloads. Laptops allow for faster submission of reports, and they organize caseloads of data elements which prove useful for retrieval and analysis. Computer promptings also impose consistency and

thoroughness to the preparation of reports. ("Laptop Computers for Parole Officer," March 1989)

Despite the popularity of automated and computerized information, most criminal justice agencies either fail to recognize the extent of their information problems or fail to find effective ways to cope with increased demands for information. Information management, using on-line computer systems, appears to be a technology with enormous potential for community corrections. These complex, high-powered systems will, if applied properly, revolutionize the way supervision of offenders and field operations are managed.

Classification of Offenders and Tracking Success

It has been recognized for many years that there is a great disparity in the setting of sentences, as well as parole decisions, both across and within most jurisdictions. Sentencing and parole decisions are often criticized for being arbitrary, capricious and unfair. All programs, whether institutional or in the community, are more effectively run, and their futures more rationally planned, when guidelines are developed and consistently applied. For classification systems to be rational, offenders should be matched to appropriate programs and resources (see Behavioral Classification System used by Montgomery County, Maryland Pre-Release Center in Appendix I.C).

Where selective incapacitation is the controlling social policy, predictions of future behavior become increasingly

germane. Thus, it is important to determine who does best in which programs. (Office of Technology Assessment, May 1988) Successes and failures (if regularly tracked and correlated with major variables, like offense type, age, race, and sex) can be used as feedback to guide changes in intake guidelines. Such updating would increase programmatic success (see section below on expert systems).

When the classification and selection process is controlled and reflects a realistic evaluation of each program's goals, the instances of new offenders creating incidences that will be publicly noticed, will be minimal (Goss, handout literature, n.d.; National Institute of Justice, n.d.; Office of Juvenile Justice and Delinquency Prevention, n.d.; Fogg, February 1988).

Standardizing Staff Training

Transforming massive volumes of information into usable knowledge requires solving three interdependent sets of problems. The first involves information collection, encoding, and storage. For community corrections, information from case reports must be encoded or transferred to forms that can be read and processed by the computer. (See suggested system under section entitled, "Identification, Security and Inventory.") The second problem set includes

information management, indexing, cross-referencing and retrieval. Stored information has little use or value when not accessed or catalogued for retrieval. Third is the problem of rapidly transforming vast quantities of raw facts into meaningful management and operational knowledge. Facts, to be of much value, must be understood in relation to one another. Understanding is necessary to convert facts into action. (Waldron, et. al., 1987)

The problems of collecting, storing, usefully analyzing and summarizing large quantities of raw data can largely be solved by applying technologies that currently are available. The greatest hurdle for community corrections to surmount will be the requirement that managers and staff become computer literate. Managers will particularly need specialized training in computer science and information analysis; such training will need to be required of persons filling these position. Also, from time to time, agencies will need to consult system analysts to smooth out problems and upgrade their systems; because these specialists are expensive, agencies may be reticent to hire them.

The problem of staff training can be surmounted by adhering to standards which require staff to receive a minimum number of hours of training annually. Some positions, to be filled or maintained if they are filled, may require that specialized or higher education be attained or sought.

Managing Court Systems

Another area where information can be used as an efficiency tool is in the court. Several courts have been very successful at scheduling cases and appeals. Typically, order is established by setting dates on which specified events must occur. Time frames may be chosen for an entire process, from notice of a hearing, to a disposition, to stages of appeal. (Chapper & Hanson, Winter 1988; See Appendix I.D to see Phoenix, Arizona's Lower Court Information System)

An example of court case management and long range planning through the generation and use of information, was presented to the Panel by George Gish, the Trial Court Administrator of the Recorders Court in Detroit, Michigan.

In 1977, the docket for the Court had a backlog of 6,331 cases. In response, the Michigan Supreme Court took over the Recorder's Court administration and appointed a new master. At that time, the court had computer hardware and produced information on computer print-outs. However, the court had no management system. It, thus, had no way to effectively use the information generated by its computer system.

To develop an overall plan for the court's management system, all parties involved in the Court's process met frequently to work out details. Parties involved included judges, clerks, police, prosecutors, defense attorneys, the sheriff, probation officers, and the court administrator.

This group developed time standards, continuance policies, date requirements for trials, and a system for tracking cases.

The court administrator's staff then developed computer programs to provide the information needed for monitoring this system. Staff positions were realigned, staff training was organized, and people were hired who had computer skills.

Ten years later, the backlog of pending cases had been reduced to 1,112. Pending trials were down from 2,794 to 452, and cases older than one year had declined from 1,064 to zero.

Another helpful device for the court is the computerized questionnaire. All persons being processed through a court's system can answer identifying information with the help of a computer. Such a device could be used independent of, or in addition to, the above example of management through information. Such devices could be used as a cost efficient means of collecting information from defendants and plaintiffs; information courts now regularly collect through interviews. This data, being standardized, will be more precise and research findings will, in turn, be more consistent and more accurate. (Waldron, et. al., 1987) .

5. Electronic Monitoring

In the face of ever-growing pressure to protect, control and rehabilitate clients, probation, parole and pre-release

administrators have responded by developing a wide range of approaches. Strategies include diversion, work-release, fines, supervision fees, curfews, drug and alcohol testing, work furloughs, intensive supervision, cooperative surveillance with police, suspended sentences, restitution to the victim, random home visits, use of electronic devices, shock incarceration, community residential programs, specialized tracking systems, and community services. (Courlander, July 1988; Friel, November 1988; Office of Technology Assessment, May 1988; Graham, December 1988)

As less restrictive sentencing alternatives have been developed, new technologies have been developed and adapted to new programs. In particular, technology has emerged in the past five years that has made tracking the whereabouts of the offender while he or she lives and/or works in the community, possible. As a result, corrections has responded by making parole, probation, furlough and pre-release supervision a more readily available alternative to offenders.

While electronic monitors are not a revolutionary concept, their application to the correctional field is relatively new. Rudimentary forms of such technology were used as early as 1919 when the Army Signal Corps began tracking airplanes and ships via radio signals. In the early

1960s the medical field reported using tiny transmitters implanted inside humans to detect changes in bodily functions. In 1964, correctional uses were first suggested by Dr. Ralph Schwitzgebel who invented a system of "electronic parole." He foresaw a system that could monitor an offender's location 24 hours a day. Several parolees, mental patients and researchers in Boston and Cambridge, Massachusetts wore tracking devices between 1964 and 1970.

Publicity about the devices generated proposals for transmitters that could send signals from sensors which recorded blood alcohol levels and other physiological data. However, development of electronic monitoring devices made few advances until the early 1980s, when Judge Love, of Albuquerque, New Mexico contracted for such devices to be developed by Mike Goss for community corrections. (Office of Technology Assessment, May 1988; Schmidt, January/February 1989) Electronic monitoring is now operated in 33 states, monitoring nearly 2,300 offenders. Studies indicate it is most often used as a probation and parole alternative for misdemeanants and low risk felons, as an extension of jail work-release/furlough programs, and as augmentation for intensive probation supervision. (Olson-Raymer, 1988/89; Schmidt, January/February 1989).

Once installed, electronic supervision, by itself, is a relatively low cost alternative to institutional care. One calculation estimates the average cost of incarceration to be

$35 a day per offender and the average cost of electronic monitoring, with normal personnel costs, to equal $9 per day per offender. (Yurkanin, April 1989; Goss, handout literature, n.d.)

Monitoring equipment can be roughly divided into two categories: continuously signaling devices and programmed contact devices.

Continuously Signaling Devices

Continuously signaling devices involve a transmitter, a receiver-dialer and a central computer. The transmitter, which is attached to the offender, sends out a continuous signal. The receiver-dialer, located in the offender's home, is attached to the offender's telephone and detects signals sent by a transmitter. These signals are received by a central computer which reports when signals have been received, compares them with the offender's curfew schedule and alerts officials when there are any unauthorized absences.

Programmed Contact Devices

A programmed contact device calls the offender periodically to verify his or her whereabouts. The computer can call offenders at random. When someone answers, the computer will ask to speak to the offender. Another similar system requires the offender to call the computer from a prearranged telephone. The computer asks the offender to hang up and then calls the offender back.

Most, but not all, programs attempt to verify that the offender is indeed the person responding to the computer's call. One method is voice identification. Another requires that the offender wear a nonremovable wristwatch type device programmed to provide a unique identification number pressed into a receiving device on a touchtone telephone. A third system uses a nonremovable small black plastic box-shaped module be strapped to the offender's arm. When the computer calls, the module is inserted into a verifier box that is connected to the phone. A fourth system uses visual verification at the telephone site. Once identified by a staff person, the computer may interrogate the offender from a list of questions, records the answers and, when requested, writes a summary report of the offender's activities. (Schmidt, January/February 1989)

Its Impact

A survey done in 1988 found that most programs charged the offenders for the use of the monitoring devices; some were based on a sliding scale, with a maximum fee being $15 a day.

While some programs only used monitoring during office hours, professionals in the field insist that its effective use requires 24 hour computer coverage. Also, an effective program requires immediate responses to violations at the time they are detected. (Schmidt, January/February 1989)

Schmidt reports that programs take time to be accepted by all staff. In some cases, such programs require that their staff work unusual hours. Training seems to help bring about staff acceptance and with successful tests of the program, confidence grows in the system.

Training is also important for offenders. They also must be taught to handle the equipment and understand what is expected of them. Their families must adapt to limiting their use of the phone so computer calls may be received. (Schmidt, January/February, 1989)

Some agencies report problems with the equipment itself. In several jurisdictions, there was a break-in period during which employees learned to use the equipment, to interpret print-outs, and to deal with power surges and computer down times. Poor telephone lines, poor wiring and call forwarding features on the phones caused other technical problems. One reported an FM radio station near an offender's house interfered with reception. Some difficulties were overcome by repairing lines or wires or by using radio-frequency filters. (Schmidt, January/February 1989)

Anticipated Developments

Electronic monitoring will continue to be improved. New developments most likely will result in smaller, less expensive, and more reliable transmitters. Some speculate that miniature transmitters implanted under the offender's skin will soon be available. Also on the horizon are the use of

cellular telephones, tracking using satellite, and the Loran, which will follow offenders over specified geographic areas.

Soon, a regular telephone service option will include tracing the caller's telephone number and placing the number on a screen. This system could improve monitoring systems that require the offender to call the computer. Perhaps, someday, the computer will be able to detect when a call-forwarding call service is being used by an offender. Currently, the computer is able to trace a phone's location and determine who owns it. However, issues of privacy will certainly be raised if such devices ever come to be used in corrections. Another system that will undoubtedly become common is the integration of electronic monitoring with telephone breath testing to monitor offenders who abuse alcohol.

Monitoring is a Tool, Not a Program

Contrary to what many vendors, parole and probation officials may perceive, Panel members wish to emphasize that electronic monitoring is not a program by itself. It is merely a tool to be used within a total approach. It allows programs to function which, without it, would be difficult to operate, because offenders' schedules would become impossible to confirm. While it is imperative that community corrections develop such technologies to serve offenders more effectively, it is just as important that technological advances not be used to replace human services. (Gross, handout literature, n.d.; Graham, December 1988; Mason, 1989)

An example of an excellent program that uses electronic monitoring with driving under the influence (DUI) offenders is provided by the Montgomery County Pre-Release Center in Rockville, Maryland (see Appendix I.E). Monitoring is offered in conjunction with breath analyzers and car locks (if the offender must drive to maintain a livelihood) in a home arrest program designed for persons who have been convicted more than once of driving while under the influence. In addition to supplying at least three breath tests a day, all persons in this program maintain regular employment, participate in some form of family counseling, and perform community service work once a week.

Before being released to their homes, DUI offenders live at the Center and participate in a host of programs that include health education, social skills training, behavioral contracting, vocational counseling and job finding techniques (e.g., employment interview rehearsals). The Center emphasizes that monitoring an offender's whereabouts and alcohol consumption is but one tool in an intensive program. The program attempts to do more than control DUI offenders, it tries to prepare these men and women to return to the community as drug free civilians. (Mason, 1989)

6. Expert Systems

Significant progress toward computer emulation of human intelligence has been made in four areas: natural language processing, computer vision, problem solving and planning and expert systems. The last of these has distinct implications for community corrections.

An expert system is a high-performance computer program that attempts to identify, formalize, encode and use the knowledge of experts in a particular field. It is a coherently organized set of stored information which contains a common thread -- a set of rules that makes the information useful in achieving a given purpose, and provides a problem solving capability. In a sense, an expert system clones an expert's methods of problem solving. (Coady, February 1987)

There are three main components common to most expert systems: a knowledge base, an inference engine and a user interface. The knowledge base contains declarative and procedural knowledge, including rules of thumb and procedures for attempting to solve given problems. An inference engine controls the system's operation. It selects the rules to use, accesses and executes those rules and determines when a solution has been found. The user interface allows communication between the system and its user. Most use natural language processing. (Office of Technology Assessment, May 1988)

Conventional computer programs are coded with instructions which tell the computer how to carry out a task. These codes "know" what needs to be done, but are not told why. Expert systems, on the other hand, can possess the knowledge of experts. They not only solve given problems, they can make inferences from that knowledge to solve specific tasks. These systems are able to explain solutions they find and are able to learn from their mistakes. (See Kee & Larson, June 1985; and Coady, February 1987, for specific program examples; Office of Technology Assessment, May 1988.)

Law enforcement agencies are currently using expert systems to solve crimes. These systems could, theoretically, design programs based on such variables as policies, procedures, goals, and offender information. Potentially, expert systems also could develop models which could predict behavior, suggest classification categories, recommend therapeutic interventions and make medical diagnoses and treatment based on symptoms.

These systems are very expensive, and their development is highly labor intensive, thus, it is not likely that community corrections will be using them extensively in the near future.

B. Video

Currently, video is commonly used as a therapeutic and training tool. Replaying family and group sessions is often

used to clarify complex interactions to clients and therapists. One community corrections program in Rockville, Maryland (Mason, 1989) uses videos to teach offenders job interview skills. Offenders role play applying for jobs. They then watch themselves and discuss their performance with a peer group and an instructor. In this way offenders determine ways they could have improved their interview skills; they then tape a reenactment performance, watch themselves and receive further group feedback.

The Rockville program also uses video as a disciplinary mechanism. If an offender acts immaturely or inappropriately with a staff member, he or she will be asked to role play the interchange again, this time exchanging roles with the staff member. The role playing is videotaped and after viewing it, the offender and staff work to clarify what the offender actually wanted and how to be more effective in getting what he or she wanted. The scene is role played again and videotaped, with the offender being him or herself, exercising newly learned options.

Training video tapes are becoming more common in corrections, in general. They can convey and demonstrate information inexpensively. Video tapes are economical in that they can be copied, shared and replayed.

C. Physiological Approaches

Biological research has only recently become the focus of serious attention by corrections personnel. Currently, research on body types, IQ and criminality of twins and siblings suggests that biological factors may play an important role in determining criminality. To date, two factors have been isolated that predispose a person towards criminality. One is chromosomal abnormality. The other is a history of criminality on the part of one of the person's biological parents (despite the fact that the person was raised by an adoptive family and did not know his/her parents). (Hernstein, 1985)

Health Screening and Education

Health inventories administered to persons when they enter the criminal system could facilitate identification of organic dysfunctions. Offenders could be shown on several graphs, how healthy they are and how well they care for themselves, based on their answers to the inventory. A dietician or nurse could show them how to increase their health and health care scores by eating nutritious food, not smoking or drinking excessively. If symptoms of biological dysfunction are evident, the nurse could refer the offender for medical diagnosis and treatment. (Mason, 1989)

In recent years, a few biological techniques have been used on a limited basis in criminal justice. Antabuse has been used to control alcohol abuse, and Depo-Provera, to control the sexual behavior of men charged with sex offenses.

Antabuse

Antabuse blocks the complete breakdown of alcohol in the body, making the imbiber ill from the accumulation of toxic by-products. This drug is effective, while it is used. It is possible to administer the drug three times a week and effectively discourage alcohol ingestion. However, once released from custody, the alcoholic offender may choose to terminate medication and resume drinking. (Office of Technology Assessment, May 1988; Anson, 1975)

Depo-Provera

Depo-Provera is a hormonal treatment which is sometimes called "chemical castration." Effective treatment with this hormone is possible, when candidates are carefully screened. The drug, which is injected every seven to ten days, lowers the amount of testosterone from normal male levels to normal female levels. Potency and ejaculation are reduced, erotic imagery declines and sexual interest wanes.

This treatment (which can only be used on volunteers) when combined with behavioral and cognitive therapies, can reduce recidivism; however, when medication is stopped, sexual misconduct may recur. The drug has been known to work well with those who seek bizarre sexual imagery, as well as

voyeurs, sado-masochists, and pedophiles, but it has not been effective with antisocial career criminals. (Office of Technology Assessment, May 1988)

Alcohol and Drug Detection

An additional area of biological research that has been the focus of social attention is the detection of drug and alcohol use. Chemical-use detection currently depends on the analysis of body fluids (e.g., blood, saliva and urine), except for alcohol detection tests, which analyze an individual's breath. Tests most commonly used to determine drug usage, analyze urine. Chemical-use technology is focusing on improving field screening kits.

Alcohol Detection

There are several hand-held "breathalyzers" available which detect alcohol use. Some models, like the Guardian Interlock System, when attached to an automobile, will prevent the vehicle from being started if an unacceptable level of alcohol is detected. Other models attach to transmitters which send the person's breath test results to a computer that maintains a log for each individual.

Another type of field screening test for alcohol, Alcoscan, analyzes saliva. A sample is obtained from the mouth with a clean swab which is provided with the test. Within five minutes the kit's chemicals change color to provide a semi-quantitative estimate of alcohol consumption. The pocket-portable is inexpensive ($1.19 to $1.59 per test),

and Lifescan (the company that produces the test) claims the Alcoscan has very few false negatives and virtually no false positives. An additional benefit is the test, when correctly stored, remains preserved for up to a year.

[A word of caution -- alcohol field tests occasionally give false readings when a person has eaten certain foods or when they have used a mouth wash containing alcohol.]

Drug Detection

Today, drug testing of criminal offenders has spread to all areas of corrections - and the number of agencies using commercial tests for drug abuse continues to increase. Testing is now commonplace in prisons, jails, work furlough programs, halfway houses and other residential community programs, as well as within parole and probation departments. (Schwartz & Farrell, Spring 1989)

Originally, drug detection tests involved the use of elaborate equipment and samples had to be sent to labs for screening. Field kits that test urine for illegal drugs have become more compact and easier to use. Today, drug abuse can be determined on site with rapid assays for drug abuse. The "Abuscreen Ontrak" urine screen kit (see Appendix I.F) is about the size of a pocket calculator. A few drops of urine are mixed in the self-contained kit. In three minutes, the result can be read by observing changes in the test's chemical colors. (Such tests cost from one to five dollars

per drug.) Once a substance is detected, retesting to confirm the presence of a substance is sufficient to be admissible in court.

Urine tests, while they are quick and inexpensive, provide time-limited information; moreover, valid samples can be difficult to collect. Unless sample collection is supervised very closely, urine tests can easily be altered. An offender may substitute a tainted urine with untainted urine, or mask the presence of drugs by adding chemicals or diluting the sample. Close supervision, during sample collection, entails an invasion of an offender's privacy, and staff often find this type of surveillance embarrassing. As a result, employees may not consistently supervise urine collection adequately.

New technology is needed that will surmount the difficulties involved in collecting urine. Help may come from a procedure that uses an individual's hair for analysis. Drug use can be tracked over long periods (for as long as the hair has been growing), and several hair samples can track usage for extended periods. Currently, a two or three inch strand of hair contains a four to six month record of chemicals ingested by a person. (National Institute of Justice, April 1987) Unfortunately, this type of test is prohibitively expensive ($30 per drug), but with future development, its use will solve most of the problems that beset urine tests.

A second approach to the sample collection problem might be a procedure that positively identifies an individual's urine through some biological means. DNA identification is gaining recognition as an identification tool. The FBI recently opened its own DNA analysis unit at the FBI Laboratory and is providing DNA identification of blood, semen and other body fluid and tissue samples to assist prosecutions by federal, state and local authorities. This procedure, which has been used to determine paternity as well as to identify offenders of crime, could enable laboratories to identify the person who provided a urine sample. Currently, there are still some procedural problems and high costs to be dealt with. Despite claims that the changes of false matches are one in hundreds of millions or more, when 50 samples were submitted for analysis at each of three labs, two labs reported one false match each. ("FBI Pushing DNA Identification for State and Local Agencies, April 3, 1989) In the future, when identification and test contamination can be determined chemically, offenders will be able to produce samples in private.

D. Social Science Practice and Research

Changes in social services technology have been numerous during the last 20 years, however they have largely remained undiscovered by community corrections' administrators and staff. Computers, again, have made such advancements

possible. Interactive computer programs can now gather complex social histories, assess training and employability, and perform sophisticated vocational tests which match a person's abilities with his/her interests. Psychological and IQ tests have become simpler, quicker and more accurate; some use computers, some not. In the area of behavior modification, goal setting and contractual agreements are highly successful and have become commonplace in social work practice, however these techniques remain under-used by corrections.

Automated Social Histories

Pre-sentence investigations can help to determine the level of security and types of treatments offenders need. However, overworked probation and parole officers seldom have sufficient time to conduct thorough investigations. As a result, they often make dynamic formulations about offenders based on very little interview time. To solve problems of data collection, questionnaires can be tailored and procedures developed which, when computerized, aggregate data more comprehensively and provide clearer, more objective reports than the best of interviewers are able to produce. Illiterate offenders can be guided through the interview by an audio tape.

Computer interviews tend to take less time than person-to-person interviews and, research has shown that answers given by offenders tend to be more honest. Contrary to

popular belief, computerized social histories do not necessarily depersonalize the parole officer's job. Information gathered by the computer can be used to guide discussion and direct subsequent inquiries. (Waldron, et. al., 1987)

Computers can also write summary narrative reports from the social history information they gather. The parole officer may add other information that the computer is not able to gather, and finish the report with an overall summary and recommendations. Interviews and reports can take five or six hours to complete, but computer programs, such as the ASH (Automated Social History) cited in Waldron, et. al. (1987) can both interview and write a narrative social history report in an hour and a half.

Psychodiagnosis

Instruments, similar to the above social history system can also provide psychodiagnoses. (See Waldron, et. al., 1987) Research (also cited Waldron, et. al., 1987) has shown that comprehensive computerized questionnaires are more effective, than human interviewers, at identifying a person's critical problems. Standardized programs are not subject to interviewer biases and the information is collected in a more uniform manner.

With the addition of a voice synthesizer, the computer can talk to an offender while recording heart rate, pulse rate, skin conductance and response time. These are better measures of emotion than the body cues that interviewers

often rely upon. Additionally, the computer can accurately correlate these measures with the offender's answers. As the data in the computer's memory is accessible, the clinician can pinpoint where anxiety was most intense and use this information in therapy.

What Next?

The possibility for a truly interactive computer assessment is soon coming. One project on the drawing board converses with an offender and has motives and needs of its own. This type of software would allow us to study parameters of personality interactions. (Waldron, et. al., 1987)

Predictive Models

Several diagnostic systems have been constructed and correlated with offender success in various programs. Such assessments, if made before offenders go to court, could be used to recommend courses for court action. One such program in Rockville, Maryland has devised a system which classifies offenders and accurately predicts their successes in various correctional programs (Mason, 1989; also see Appendix I.C). Predictive models will undoubtedly grow in popularity as community corrections is subjected to increasing public criticism and lawsuits resulting from misassignment of offenders.

Vocational Testing

Computers have made the work of vocational preparedness training considerably easier. The Arizona Department of Corrections has developed an "Employability Assessment and Training" program (Merren, January 1988). The program attempts to measure the knowledge, attitudes, and behavior of offenders to determine their potential success in post-release employment. The number of areas that are measured is extensive; i.e., basic skills (reading, writing and math), employment knowledge (work ethic, appearance and hygiene, purpose of supervision and how to find a job), advising/counseling issues (IQ, physical ability to work, problem-solving skills, and other marketable job skills), and special issues (effort, responsibility and cooperation). From this assessment, a training curriculum can be designed for each offender that will help prepare him or her for future employment.

The Montgomery County Pre-Release Center in Rockville, Maryland (Mason, 1989) also uses a sophisticated vocational test called APTICOM. This program measures eye-hand-foot coordination, object identification, abstract shape matching, clerical matching, pattern visualization, computation, finger dexterity, numerical reasoning, manual dexterity, word meanings and eye-hand coordination. These areas of ability are then matched with the offender's interests and a list of possible careers is generated. Similar programs are used in public schools. They list career possibilities in business

and industry, noting the location of potential employers throughout the nation for persons with particular specialties.

Psychological Tests

In the area of psychological testing, the Minnesota Multiphasic Personality Inventory (MMPI), one of the first computerized objective personality tests, has been improved several times and is now called the Milan. This test is much shorter and more predictive than its predecessors and can be scored manually or by computer. (Mason, 1989)

Contracting

The Montgomery County Pre-Release Center uses a system which, though not new, is rarely used in the field of community corrections -- behavioral contracting with offender. The offender identifies general areas in which he or she will work to improve. Each area is then separated into measurable, tangible goals with associated tasks that are to be completed by specified deadlines. These contracts are then monitored and updated, as needed. (Mason, 1989)

At periodic intervals, staff complete performance evaluations on each offender. These assessments numerically evaluate each individual according to standardized criteria. Areas where the offender needs to improve, such as punctuality, responsible planning and use of money, can be pinpointed. Together staff and offender subdivide each area

into smaller tasks, that once again can be monitored on a specific time schedule. (Mason, 1989)

Therapeutic Tools

Today, electronic monitoring, paired with breath analyzers and car locks, can be used as tools for treating offenders who have been convicted of driving while under the influence (DUI) offenses. These tools, used in conjunction with Alcoholics Anonymous and other treatment modalities, have been very successful in the treatment of alcoholism. (Mason, 1989; also see section on electronic monitoring.)

Another therapeutic tool, discussed earlier, is video. Offenders may lack basic awareness of their body language. They may not know how to conduct themselves in job interviews. They may need to learn alternative behaviors during times of stress. Video cuts through denial and graphically provides feedback. Alternative scenarios can be suggested and replayed, observed and discussed.

E. Other Devices

Some progress is being made in the development of less-than-lethal weapons. Such devices could potentially be used in a variety of correctional settings. Examples of such weapons now in use, or under development, include (Office of Technology Assessment, May 1988):

- an electrical device that delivers a disabling, nonfatal shock;

- chemical devices, such as tranquilizers, that work either on the central nervous system or peripherally on the body (e.g., tear gas or mace);
- impact devices which launch a variety of soft projectiles (e.g., rubber bullets, soft rubber rings, bean bags, and small water balloons);
- a device which combines some of the above is an impact device that delivers tranquilizing shots;
- marking devices, such as a pistol that fires a blob of paint for later identification of fleeing suspects or vehicles.

The Office of Technology Assessment (May 1988) warns that nonlethal weapons can be misused or abused. Tolerance for some of these weapons may vary widely among individuals. What is nonlethal to one person may be deadly to another. The ideal may be for the officer to have a range of nonlethal weapons which can be used as situations dictate.

General Concerns

A. Impersonalization and Loss of Control

The potential for the increased use of new technology in community corrections is nearly limitless. The fear, repeatedly expressed by the project's Peer Review Panel, was that workers in community corrections will lose control of their technologies. Staff-client interaction is, or at least has been, considered the heart of community corrections. New technology, while improving efficiency, could weaken this traditional staff-client relationship. However, technology, if used as a tool and not as a program by itself, can also free staff to interact with offenders.

B. Violation of Rights and Probability of Liability

Issues related to privacy and constitutional rights will undoubtedly arise regarding the use of some of the technological innovations listed herein, and not mentioned. When is government intrusion reasonable or necessary? The Constitution guarantees rights to liberty, due process, and protection against unreasonable searches and seizures. It also mandates that convicted individuals be shielded from cruel and unusual punishment. (Office of Technology Assessment, May 1988)

If, on occasion, machine technology replaces staff in agency-offender interactions, it is highly probable that some offenders' cases will be insensitively or improperly handled. In these instances, the issues of personal and agency liability may arise.

Staff will have to be particularly alert to ensure that the mix of heavy workloads and the application of new technology does not lead to policies and programs that violate constitutional rights. For example, information technologies can lead to gross violations of individual privacy.

Substituting biological treatment of behavior disorders for traditional sanctions calls into question the assumption of personal responsibility for one's own behavior; a major underlying principle of constitutional government.

Social science models are constructed from the data on populations or large groups of people. If used to predict individual behavior when making decisions about probation or sentencing, social science models could reinforce discriminatory stereotypes and penalize the poor, under-educated, and/or members of minorities. In some circumstances, social science predictions regarding recidivism rates could result in decisions that might approach punishment in anticipation of future crime. (Office of Technology Assessment, May 1988)

C. Computer Security

Computer security is one of the biggest problem areas in the computer industry today. As early as 1985, some experts estimated that the true cost of computer crime exceeded $15 billion annually.

Personal computer (PC) security is an area of growing concern. Information may be added or deleted. Payments may be shown as received, offenses not committed, dispositions downgraded, and so forth. Although elaborate security measures can be used on mainframe computers, PCs offer almost unlimited opportunities for intrusion. Through them security can be breached in mainframe computers. The current trend to integrate PCs into networks and mainframe computers now makes data once considered secure, vulnerable.

On the market today are multiple processors, privileged instructions and memory protection features. While all these devices protect hardware, any of them can be modified by a person, who, under the guise of system repair or upgrade, could "bug" the machine with a mere transmitter chip.

A large computer industry concern today is viruses--software that can attack and debilitate entire systems. A system may catch a virus when it taps into another seemingly safe source, to obtain information. Waldron et. al. (1987) describe twelve computer related crimes:

1. Data Diddling happens when data is changed before or during entry into the computer. Examples are counterfeiting documents, exchanging valid computer media with prepared replacements, violating source entries, and neutralizing or avoiding operator controls.

2. Trojan Horse is a covert program which instructs a computer to perform unauthorized functions while permitting it to perform its intended purpose as well. Examples include instructing the computer to ignore an overdrawn checking account, to ignore past due billing dates, and to order an excess number of items from a particular vendor.

3. Salami Technique is an automated means of stealing small amounts of assets from a large number of sources. An example would be an automatic transfer of small amounts of interest earned on bank accounts to an account controlled by the program's perpetrator or an accomplice. These small amounts may only be a thousandth (.001) of a cent but would add up to a sizable sum of money over time. Because of rounding techniques (to the nearest penny), the accounts will continue to balance.

4. Superzapping is a technique that employs a program to bypass all controls against modification or disclosure of a computer's contents. This allows the perpetrator to make changes in accounts or data files after normal control mechanisms have been by-passed.

5. Trap Door is, as the name implies, an "avenue," into a computer which is known to one or to a very small number of persons. It allows an individual to gain access to a program's code for purposes of possible modification or to by-pass password protection routines.

6. Logic Bomb is a computer program routine that, when executed, will direct a malicious act to occur, such as erasure of files or making the entire system crash. Such programs are usually entered into the computer with instructions not to be executed until certain conditions (a specific date or hour, three months after termination of employment, etc.) exist.

7. Asynchronous Attack is a sophisticated method employed to confuse the operating system. Computer systems which run batch jobs do so on a priority basis, and assign computer resources as jobs are being executed. An asynchronous attack can override a priority instruction and assign too much or too little of the computer's resources to a particular job. This form of attack requires a high level of programming expertise.

8. Scavenging happens when the computer and its peripherals (buffer storage, temporary storage tapes, etc.) are searched for information, much as one might search wastebaskets and trash containers for discarded information that may be of some value. The latter can be done by a knowledgeable computer user.

9. Data Leakage - techniques may be employed to remove data or copies of data from a computer. Methods range from hiding the data in innocuous reports to using miniature radio transmitters to broadcast the contents of a computer to a remote receiver.

10. Piggybacking and Impersonation are terms used for physically or electronically gaining access to areas or data by "following" an authorized user or by posing as one authorized to use the area or data.

11. Wire Tapping can happen when it is electronically feasible to "tap" the phone lines going into and out of a facility's computer to obtain copies of data.

12. Simulation and Modeling are methods which use the computer's capability to supply data which assists in accomplishing the crime. An example is the accountant who uses a computer to duplicate an accounting system that is the intended target of embezzlement. (pp. 23-24)

As private and public sector computer systems are often subject to security attacks, innovative defense systems will assuredly be developed in the near future. Even in a small community corrections agency, computerized files will be of

interest to offenders. For the present, computer systems in correctional settings of all types, should be protected by some security measures. Securing the area in which the computer terminal is housed is important, and records which are of security interest should be duplicated and copies stored in safe places. Periodically, programs and files should be spot checked. Programs may be keyed for limited access and some may prevent data input to viewers. Employees using a system must be trained to protect classified and secured information, and their behavior should be monitored to insure continuous safety and continuing utility of computerized information. (National Computer Security Center, December 1985)

D. The Politics of Planning

Community corrections' agencies are, by definition, operated for and by local communities. Any problems these agencies have are of immediate concern to the local public. Often, the people in political office who control funds and pass laws, respond to problems of the moment by looking for "quick fix" solutions. Often the result is a series of stop-gap measures designed to immediately appease the public. Technological improvements may be installed, which in fact, provide little follow-through, continuity or anticipation of future long-range problems.

In many instances, the best resolution may be one that will take several years to implement. A good plan describes both the end-result and the intermediate steps needed to achieve an end-result. Technological innovations, to be of optimum utility, should be incorporated into each agency's long-range plans.

Community corrections administrators must take the lead, informing the public and legislators about issues of mutual concern. Administrators can publicize the work that community corrections does well, and thereby educate the public and public officials about problems that exist and, per chance, persuasively suggest reasonable solutions to them.

E. Staff Changes

Some technology takes several years to fully implement. Procedures will change, staff will need to be trained, and new systems have to be tested before they operate efficiently. Decisions that are currently being made by community corrections' administrators concerning policy, equipment, supervision styles, and staff hiring and training will be fully felt by the turn of the century and beyond.

Staff training is a variable that should be incorporated in an agency's long-range plan. Staff hired this year will probably be working in the year 2010, perhaps 2020. Some of

those people will become supervisors, agency administrators, and leaders in the community corrections field. Implementation of staff training standards will help to assure quality in personnel, ten to 20 years hence.

What kind of staff is likely to be needed to work in a technologically sophisticated environment? Perhaps employees who do not adapt well to operating complex electronic machines will no longer work in community corrections offices. New people being hired for office work may have to demonstrate an ability to use complex machines and systems.

Community corrections is likely to undergo structural changes by 2000. In their description of a "limited-risk control" model for field supervision in community corrections, O'Leary and Clear (1984) developed the concept of specialized units to replace the present general caseload model. The authors designed six types of units, each having a different role, and each using different staffing patterns to cope with offenders under their supervision. Their particular model would involve a refining of staff skills for specialized roles. Other models, with other structures, are likely to emerge over the years.

At the American Correctional Association's 1988 Congress of Correction, Donald Evans (1988), Executive Coordinator of the Executive Development Institute, listed several roles he expected the probation and parole officer to play in the future:

1. Anthropologist - a person who understands the impact of culture on behavior.

2. Psychologist - a person who understands and can interpret behavioral assessment procedures.

3. Information manager - a person who is skillful in using on-line databases.

4. Program director - a monitor of program contracts and a manager or coordinator of several treatment programs.

5. Educator - a person who arranges basic education and training programs.

6. Enforcer - a person who knows how to use surveillance and communications equipment, and understands the law enforcement process.

7. Technician - an interpreter of technical tests and reports.

8. Facility manager - a provider of residential services that include temporary shelter-type services and long-term, community-based correctional programs.

To fill these roles adequately, the American Correction Association recommends that agencies adopt standards which include annual training requirements for all staff members. Such standards should be shaped, in part, by each agency's long-range plans.

RECOMMENDATIONS

Recommendations to NIC:

1. Assist community corrections agencies to expand their technological training and information applications. Demonstrate new technologies that effectively teach skills and values.

2. Provide a series of regional seminars to expose field personnel to technical innovations and introduce select technologies into programs.

3. Provide training in information management.

4. Encourage the development of new technology in community corrections by prod ing briefing packages, and publicizing helpful innovations to the field of community corrections.

5. Study programs which use technological prototypes, examining the pitfalls as well as the strengths of these innovations. In particular, observe the effects innovations have on the behavior of staff and offenders.

6. Make public information and public relations efforts (i.e., develop public service commercials) which promote newsworthy technological innovations and promote the work of community corrections.

7. Conduct a survey of community corrections agencies to determine what technology exists in the field. Create an accessible database of this information.

8. Compile a follow-up directory to number 7, above, every three years, and disseminate it to community corrections' agencies.

9. Conduct seminars which will stimulate interest and motivate persons in the field of community corrections to use and experiment with new technologies.

10. Periodically survey the field of community corrections for problem areas which could potentially benefit from technological developments.

Recommendations to Persons Working in the Field of Community Corrections:

1. Clarify the goals and objectives of each program your agencies operate.

2. Contact other agencies that use or have attempted to use technology before purchasing and using it yourself.

3. Seek new technological approaches to meet your agencies' goals.

4. Report your experiences with technological innovations, both positive and negative, through the media and through networking.

5. Use the information you acquire, through your own and other's experiences, to elicit community and legislative support. Use this knowledge to improve the field, in general.

Recommendations to ACA:

1. Establish a technologies section in ACAnet (a computer network that is available at a nominal charge) which can be regularly updated by users.

2. Set aside space at ACA's biannual conferences for vendors of emerging technologies. Give them enough program time and space to make demonstrations.

3. Establish a special section in Corrections Today and publish articles about operating programs that are using technological advances. Include positive and negative comments by field staff regarding their experiences with new approaches.

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APPENDIX I

APPENDIX I.A
NATIONAL INSTITUTE OF CORRECTIONS
AND
AMERICAN CORRECTIONAL ASSOCIATION

PROJECT ON
EMERGING TECHNOLOGIES IN COMMUNITY CORRECTIONS

PEER PANEL

ACA Project Director
John A. Minor
American Correctional Association
8025 Laurel Lakes Court
Laurel, MD 20707
301-206-5045 ext. 266

NIC Project Monitor
David Dillingham
National Institute of Corrections
320 First Street, NW
Washington, DC 20534
202-724-7995

NIC Division Chief
George Keiser
National Institute of Corrections
320 First Street, NW
Washington, DC 20534
202-724-7995

David Byers
1314 North 3rd Street
Phoenix, AZ 85004
602-253-5700

Donald Cochran
Commissioner of Probation
One Ashburton Place
Room 405
Boston, MA 02108
617-727-5300

Betsy Coffey
Probation & Parole Office
109 St. Clair
Frankfort, KY 40601
502-564-6613

Charles M. Friel
Director
Institute of Contemporary Corrections & Behavioral Sciences
Sam Houston State University
Huntsville, TX 77341
409-294-1111

Tamara Holden
Department of Correction
1400 S. Pony Express Road
Draper, UT 84020
801-572-5700

Bart Lubow
Deputy Director
NY State Division of Probation and Correctional Alternatives
60 South Pearl Street
Albany, NY 12207
518-474-7767

Billy F. Wasson
Director
Marion Co. Community Corrections
220 High Street, NE
Salem, OR 97301
503-588-5289

APPENDIX I.B

A P M I S

ARIZONA PROBATION MANAGEMENT INFORMATION SYSTEM

SYSTEM DESCRIPTION

November, 1988

Patricia A. Wontor, APMIS System Manager
Arizona Supreme Court, Administrative Office

APMIS

ARIZONA PROBATION MANAGEMENT INFORMATION SYSTEM

The primary objective in developing the Arizona Probation Management Information System (APMIS) was to establish a standardized statewide database management information system for rural probation services in Arizona. There are two modules in the APMIS system, one for juvenile probation data and one for adult probation data. APMIS allows juvenile and adult probation departments to store, modify and report data on individual cases through a menu driven system that involves entering and accessing data through formatted screens.

GURU, a product of Micro Data Base Systems, Inc. is the database software in which the APMIS application is developed. GURU is an enhanced version, including an artificial intelligence component, of Knowledgeman/2 database software.

APMIS is running on IBM compatible Everex AT-Plus 1800 computers in the probation departments, each equipped with one 1.2 megabyte floppy disk drive, a 20 megabyte hard disk drive, internal 1200 baud modem, and a 20 megabyte tape backup system.

APMIS is a comprehensive, menu driven database application that is used primarily as a case management tool in the rural county probation departments in Arizona. The juvenile module includes numerous data elements used as identifiers for juveniles in the system as well as necessary data elements to track an individuals' referrals, offenses, detentions, school, court, probation and financial information. The adult module also includes data elements used as identifiers for probationers as well as data elements related to offenses committed, arrest, court and sentencing information, financial obligations and payments, warrants and current status. The APMIS system also produces a variety of reports. There are pre-programmed reports beneficial to Probation Officers for day to day case management such as the Juvenile Case History Report, Adult Case Data Report, and the Tickler Report. There are also reports that provide probation officer caseload information for use by Chief Probation Officers as a supervisory tool such as the Monthly Activity Report, Adult Caseload Report, and the Monthly Financial Report. In addition, the APMIS system also produces summary reports such as the Monthly Statistical Report, which fulfills the county reporting requirements to the State Supreme Court for program evaluation purposes.

The APMIS system also allows a great deal of growth potential and flexibility for each department. Knowledgeman/2 database software can be used in conjunction with the APMIS application and allows individual departments to write custom report formats to meet their own reporting needs in addition to those pre-programmed reports that exist in the APMIS system.

Also, all departments across the state are connected via electronic mail. The internal modem and communications software in the AT's allow each department to access the Supreme Court's Digital VAX computer and communicate electronically with all probation personnel throughout Arizona.

Attached are samples of actual input and query screens from the two modules.

APMIS

ARIZONA PROBATION MANAGEMENT INFORMATION SYSTEM

PROGRAM OVERVIEW

DEVELOPMENT HISTORY

* Custom Application for case management in rural counties
* Distributed System
* Designed, Developed, and Beta Tested in 1986
* Installed in all rural counties in January/February 1987

SYSTEM CONFIGURATION

* IBM Compatible AT's
* Hardware and Software provided to counties

APMIS APPLICATION

* System Functions
    * Two Modules: Adult and Juvenile
    * Powerful Case Management Tool for Probation Activity
    * Three Levels of System Security
* Input
    * Operator input from source documents (Referral Forms, Court Documents, etc.)
    * Menu-Driven System
    * Data Entry Validation/Checks (i.e. coded fields; pop-up menus)
* Output
    * Pre-Programmed Reports
        * Case Management
        * AOC Program Reporting Requirements
    * Custom Reports in Knowledgeman/2

GROWTH OF APMIS

* Expanded use of APMIS application
* Development of local custom reports
* Additional workstations and local area networks installed
* Use of Word Processing and other applications

S00000 APMIS 12/02/8

Main Menu

1 Adult Probation System

2 Juvenile Probation System

3 System Maintenance

4 Help

5 Exit

Use the arrow keys or space bar to highlight option and press ENTER

S10000 APMIS 12/02/88

System Maintenance Menu

1 Modify County Specific Information

2 Modify Officer Information

3 Security

4 Tape Backup Menu

5 AOC Update

6 Index Adult Files

7 Index Juvenile Files

8 Help

9 Return to Previous Menu

Use the arrow keys or space bar to highlight option and press Enter

A10000 APMIS 12/02/88

Adult Probation System Main Menu

1 Probationer Maintenance Menu

2 Inquire/Update Adult Case Data

3 Reports Menu

4 Other Processing Menu

5 Custom Report Generator

6 Risk / Needs Assessment

7 Help

8 Return to Previous Menu

Use the arrow keys or space bar to highlight option and press Enter

A11100 APMIS 12/02/88

Open an Adult Probationer Case

1 Enter New Case

2 Print Face Sheet

3 Enter Supp. Data Entry Information

4 Print Opening Report

5 Print Bank Letter (IPS Only)

6 Print ACJIS Data Sheet (IPS Only)

7 Help

8 Return to Previous Menu

Use the arrow keys or space bar to highlight option and press Enter

A11111 APMIS 12/02/88

Probationer Maintenance

Adult Probation Number: 02-00927

Last Name : _____ First : _____ Middle: _____
Home Address : _____ Home Phone: ___-___-____
City, St Zip : _____, __ _____-____ Msg. Phone: ___-___-____

Mailing Addr : _____ DOB : __/__/__
City, St Zip : _____, __ _____-___ Birthplace: _____

Soc. Sec. Number : ___-__-____ Height : _'__" Sex : _
Religion : _____ Weight : ___ Eyes : ___
No. of Children : __ Race : _ Hair : ___
Marital Status: __ Citizen : ___
Education : __ Occupa. : __

Enter Last Name or leave blank to stop adding

A11111 APMIS 12/02/88

Adult Probationer Information Menu

Adult Probation Number: 02-00015

GENERAL ID INFORMATION	CURR. OFFENSE INFORMATION	HISTORICAL INFORMATION	PROBATION CASE ACTIVITY	RETURN TO PRIOR SCREEN
1 Alias	1 Offenses	1 Prior Crim	1 Status	
2 Scars	2 Arrest Inf	2 Warrants	2 Supv Class	
3 Employmnt	3 Court Inf	3 Prior Res.	3 Supv Type	
4 Driving	4 Financial	4 Narc/Alc	4 Pet. Disp	
5 Military	5 Codefend.	5 Treatment	5 Risk/Needs	
6 Prof. Lic.	6 Victims	6 Prior Menu	6 Rearrests	
7 Relatives	7 Prior Menu		7 Tech Viol	
8 Comm./Tick			8 Month Act.	
9 Prior Menu			9 Prior Menu	

Select category of information

A1111A APMIS 12/02/88

Offense

Adult Probation Number: 02-00015

Case Number : _____ Weapon Use Code : __
Offense Date : __/__/__ Violence Index Code: __

ARS Code : __-____.__.__ Descrip.: _____
Offense Class: __ Offense Type: ___

Clarification: _____
NCIC Code : ____ Description: _____

1 Add 2 Modify 3 Delete 4 Undel 5 Next 6 Prior 7 Quit

APPENDIX I.C

DEFINITION OF MONTGOMERY COUNTY
PRE-LEASE CENTERS BEHAVIORAL
CLASSIFICATION PATTERNS

I. Inadequate/Immature Pattern:

These individuals demonstrate a pattern of behavior reflecting little self-direction, limited self-control, and/or very poor judgement which, many times, results in their deviant behaviors. The individuals feel they have limited control over things that happen "to them" and it is "others" or the "situation" that is responsible. They fail to appreciate their own role and responsibility for their problems. Despite difficulties and conflicts in their past they may face the future with high hopes, but without realistic plans. Rather than age-appropriate, goal-directed, problem-solving behavior, they act very impulsively without thinking about the consequences of their actions. They frequently over-react, insisting their way is fine, and wanting immediate gratification. Their behavior often appears shortsighted, self-defeating, based upon judgement that has not developed past an early adolescent level.

II. Socialized Deviant Pattern:

Individuals demonstrating this behavioral pattern have a deviant value system that is a result of growing up and learning activities through their family and/or peer groups which accept behaviors against the law as a way of life. These individuals adhere to the "code" of their own group, and will, typically, maintain this identification when interacting with authorities. Their behavior, many times, exhibits a failure to abide by mainstream social values but the individual is not particularly anxious about it and appears "well adjusted" within the deviant value system. The family or peer group provides the approval, belongingness, attention, status, and self-identity to maintain the deviant values and behaviors.

III. Alcohol Pattern:

Individuals demonstrating this pattern use, abuse or are dependent upon alcohol, and their condition resulting from alcohol consumption directly contributes to lawbreaking behavior.

IV. Drug Pattern:

Individuals demonstrating this pattern use, abuse or are dependent upon drugs, and their condition resulting from drug use directly contributes to lawbreaking behavior.

V. Emotional Dysfunction Pattern:

The deviant behavior of individuals demonstrating this pattern is directly attributable to significant emotional instability (overriding other possible factors such as inadequate/immature, etc.). Such individuals have a mental disorder (e.g. significant nuerosis or psychosis) which directly contributes to their criminal behavior as assessed by a clinical psychologist.

VI. Unsocialized Aggressive Pattern:

Individuals demonstrating this pattern have little or no identification, attachment, or loyalty to others, and, as such, they are loners who are out for themselves. They have little allegiance to an outside value system, however they are very independent, self-reliant and self-directed. Their life style has the qualities of aggressiveness, manipulation and excitement.

They, typically, are defiant against authority figures, are very calculating in how to get their way, and pay little attention to social mores or legal limits. They demonstrate little anxiety or guilt when they lie, or about their criminal or deviant behavior.

VII. Situational Incident Case:

Generally well-integrated, organized individuals who basically follow established social values, confront a "unique" situation under "stressful" circumstances where their reaction becomes atypical of their normal behavior. This behavioral reaction results in criminal conviction but continued criminal behavior is highly unlikely, as are the circumstances which contributed to it.

VIII. Organic Dysfunction Pattern:

The criminal activities of these individuals within this pattern are attributed directly to their organic limitation or impairment as assessed by the Clinical Psychologist. Examples of these cases are the mentally retarded and significantly brain damaged alcohol and drug abusers.

STRATEGY FOR REFINING

THE MONTGOMERY COUNTY (MD.) WORK RELEASE/PRE-RELEASE PROGRAM

TABLE EIGHT

Grouping Behavioral Patterns According to Outcome Measure Levels

Very High Level (Rel=75%; A.F.=90%)

9. Alcohol - Emotional Dysfunction (N=18; Rel.=77%; A.F.=92%)
17. Socialized Deviance - Alcohol (N=14, Rel.=85%; A.F.=100%)

High Level (Rel.=70%; A.F.=80%)

2. Inadequate/Immature - Socialized Deviance (N=37; Rel.-71%; A.F.=88%)
3. Inadequate/Immature - Alcohol (N=30; Rel.=70%; A.F.=81%)
5. Inadequate/Immature - Emotional Dysfunction (N=18; Rel.=79%; A.F.=82%)
12. Drug - Socialized Deviance (N=29; Rel.=72; A.F.=82%)
22. Situational - No Secondary (N=42; Rel.=98%; A.F.=77%)
23. Situational - Inadequate/Immature (N=11; Rel.=100%; A.F.=73%)

Moderate Level (Rel.=70%; A.F.=70%)

7. Alcohol - Inadequate/Immature (N=42; Rel.=74%; A.F.=71%)
8. Alcohol - Socialized Deviance (N=31; Rel.=77%; A.F.=71%)
11. Drug - Inadequate/Immature (N=56; Rel.=79%; A.F.=69%)
14. Socialized Deviance - No Secondary (N=37; Rel.=78%; A.F.=71%)
19. Emotional Dysfunction - No Secondary (N=25; Rel.=76%; A.F.=75%)
20. Emotional Dysfunction - Inadequate/Immature (N=22; Rel.=86%; A.F.=72%)

Low Level (Rel.=60%; A.F.=69%)

1. Inadequate/Immature - No Secondary (N=58; Rel.=69%; A.F.=63%)
6. Alcohol - No Secondary (N=48; Rel.=75%; A.F.=64%)
10. Drug - No Secondary (N=41; Rel.=63%; A.F.=76%)
18. Socialized Deviance - Emotional Dysfunction (N=11; Rel.=60%; A.F.=83%)

Very Low Level (Below 60%)

4. Inadequate/Immature - Drug (N=18; Rel.=56%; A.F.=56%)
13. Drug - Emotional Dysfunction (N=19; Rel.=59%; A.F.=50%)
15. Socialized Deviance - Inadequate/Immature (N=49; Rel.=59%; A.F.=52%)
16. Socialized Deviance - Drug (N=20; Rel.=83%; A.F.=53%)
21. Emotional Dysfunction - Drug (N=11; Rel.=30%; A.F.=33%)
24. Unsocialized Aggressive - (N=5; Rel.=60%; A.F.=33%)

N=Number of residents.
Rel.=Percent of residents in that classification released to the community.
A.F.=Percent arrest free one year after discharge (released to community).

APPENDIX I.D

LOWER COURT INFORMATION SYSTEM (LOCIS)

ADMINISTRATIVE OFFICE OF THE COURTS

PHOENIX, ARIZONA

THE LOWER COURT INFORMATION SYSTEM (LOCIS) is designed for use by Arizona Justice of the Peace and Municipal Courts to manage the court's Traffic, Criminal and Civil caseload and accounts receivables. LOCIS grew out of a development effort that began in late 1984 when the Administrative Office of the Courts in Phoenix, Arizona received a request from Maricopa County for assistance in automating the case management functions of their eighteen Justice of the Peace Courts. The success of the Maricopa County system encouraged the AOC to examine the portability of the design for use in the development of a micro-based case management system for limited jurisdiction courts throughout Arizona.

After extensive investigation, design of the project began in the early part of 1986 using the KnowledgeMan (TM) database management product as the development tool. Upon completion of the initial effort, a single-user version of the case management system (LOCIS) was installed at the test site in July of that year. Following a 5-month testing period, the test site became fully operational January 30, 1987. While continuing the testing and modifications of the software, the AOC conducted a six month evaluation of Local Area Network equipment and released a hardware RFP in May 1987. Selecting Banyan as the Local Area Network vendor, the AOC staff began development of a multi-user version later that year. By February 1988, a LAN version of LOCIS was installed at Oro Valley Magistrate Court, Oro Valley, Arizona. Since its installation, LOCIS has improved the efficiency and productivity of the court clerical staff at the Oro Valley site.

The number of LOCIS installations has grown extensively in the last 18 months. More than 45 limited jurisdiction courts in Arizona and seven out-of-state courts have installed the system in either single or multi-user environments. A complete listing of LOCIS installations can be obtained from the Arizona AOC.

LOCIS is a valuable tool for the small, non-automated limited jurisdiction court looking for a more effective way to manage the tracking and collection of citation-related receivables through automation. The database design and use of coded entries offers flexibility to the recipient site who may wish to modify and/or enhance the basic system.

This Executive Summary provides a management overview of the system capabilities, its documentation and issues pertinent to its transferability to other courts. The AOC has requested that inquiries be coordinated through each individual state's AOC office to minimize staff time responding to requests. After reviewing this document, the reader is invited to contact the Arizona Administrative Office of the Courts; 1314 N. Third Street, Suite 200, Phoenix, AZ 85004, (602) 253-5700.

The Administrative Office of the Courts, State of Arizona

The AOC services four levels of court jurisdictions: the Supreme Court; Court of Appeals (2 Divisions); Superior Court (15 Counties); and Courts of Limited Jurisdiction (84 Justice of the Peace and 79 Municipal Courts). The Administrative Office of the Courts is charged with providing the support necessary for the operation of the state court system. This support may include implementation of new programs or procedures, development of operational systems, collection and dissemination of management and statistical information, support for the judiciary's legislative programs, provision of technical assistance to courts throughout the state, and other duties deemed necessary to enable the judiciary to effectively accomplish its constitutional and statutory obligations to the citizens of Arizona.

System Review Procedures

NCSC staff visited the AOC and one of the LOCIS test sites, Oro Valley Magistrate Court. Interviews were conducted with the principal developers of the product and court staff personnel. NCSC Staff also received a demonstration of the system, reviewed various components of the product and obtained copies of the documentation.

Interviews were conducted with Mr. James E. McMillan, Information Systems Coordinator, and

Mr. Frederick Hernandez, Computer Services Specialist of the Court Services Division. At the LOCIS test site in Oro Valley, Arizona, NCSC staff met with Joan Harphant, Court Clerk, and Toni Willis, Assistant Court Clerk.

ORO Valley Procedures

Oro Valley, Arizona, is a growing community of approximately 5,000 residents. The population has doubled in the past year. The staff of the Oro Valley Magistrate's Court consists of one Judge, a Community Services Supervisor, four clerks, and one volunteer. The 1987 caseload for Oro Valley Magistrate Court is noted below:

Criminal Traffic: 842
Civil Traffic: 2,583
Non-Traffic Misdemeanor: 288
Total Case Filings: 3,713

SYSTEM OVERVIEW

LOCIS helps manage the court's traffic, criminal and civil caseload and accounts receivable. The system stores basic case information, party information, attorney information, and payment history (used for data viewing), statistical reporting, and notice and letter generation. The system is capable of generating the monthly statistical report required by the Arizona Supreme Court. It also prepares various financial report information and a variety of standard letters and notices to include: warrants; failure to appear letters; expired registration letters; and default judgment letters. Using a generic word processing package, a skeleton document is created and the appropriate information from LOCIS is merged with the skeleton WP document to create the final letter or notice. A warrant report and a DMV abstract for the state Motor Vehicle Department can be produced and either electronically transmitted or printed on-site. Help screens are available for each LOCIS screen.

The Criminal, Traffic and Civil menus provide for the creation, modification, editing and archiving of a case record. Additional submenus provide the following capabilities:

Calendar Menu is used to schedule a court date and time for a case or activity.

Party Menu is used to create, modify, or delete party records. It also provides name search capability and display of the party record. Through name search, all pending case numbers for a party are listed.

Proceedings Menu provides for the entry of standard narratives pertinent to the case, but not relating to a specific field.

Accounting Menu is used to report all financial transactions to the court, create payment receipts, and generate bookkeeping reports.

Attorney Menu is used to create a master list of attorneys licensed to practice before the court.

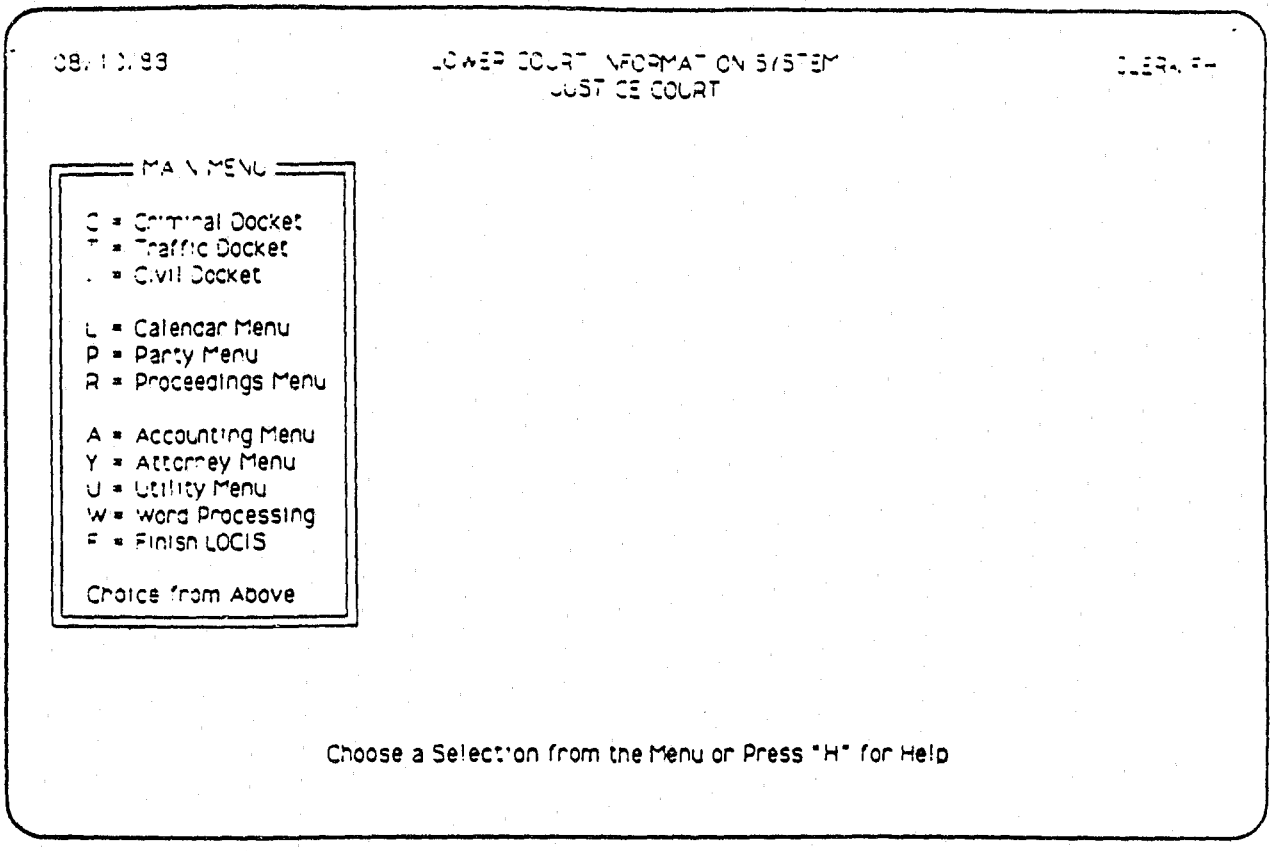
Backup/Utility Menu provides access to the system backup routines and the ability to perform various system utilities.

A Word Processing option allows the user to access any word processing package selected by the court for forms generation and document printing.

Using the relational capabilities of KnowledgeMan/2 (TM) as the programming tool for development, technical support staff at the AOC have been able to keep up with the rapid evolution of the system in response to the needs of the users. KnowledgeMan/2 (TM) is a relational database management system developed, marketed and supported by MDBS, Inc., 1834 Walden Office Square, Suite 250 Schaumburg, IL 60195 (800) 323-3629. The product supports an integrated array of capabilities which include database management, preprinted forms generation, spreadsheet analysis, statistics generation, fourth generation language programming, graphics, text processing, report generation and remote communications. Use of the preprinted forms generation capability would require either a dedicated printer or the manual change of paper. KnowledgeMan/2 (TM) is discussed further in the transfer issues section of this report.

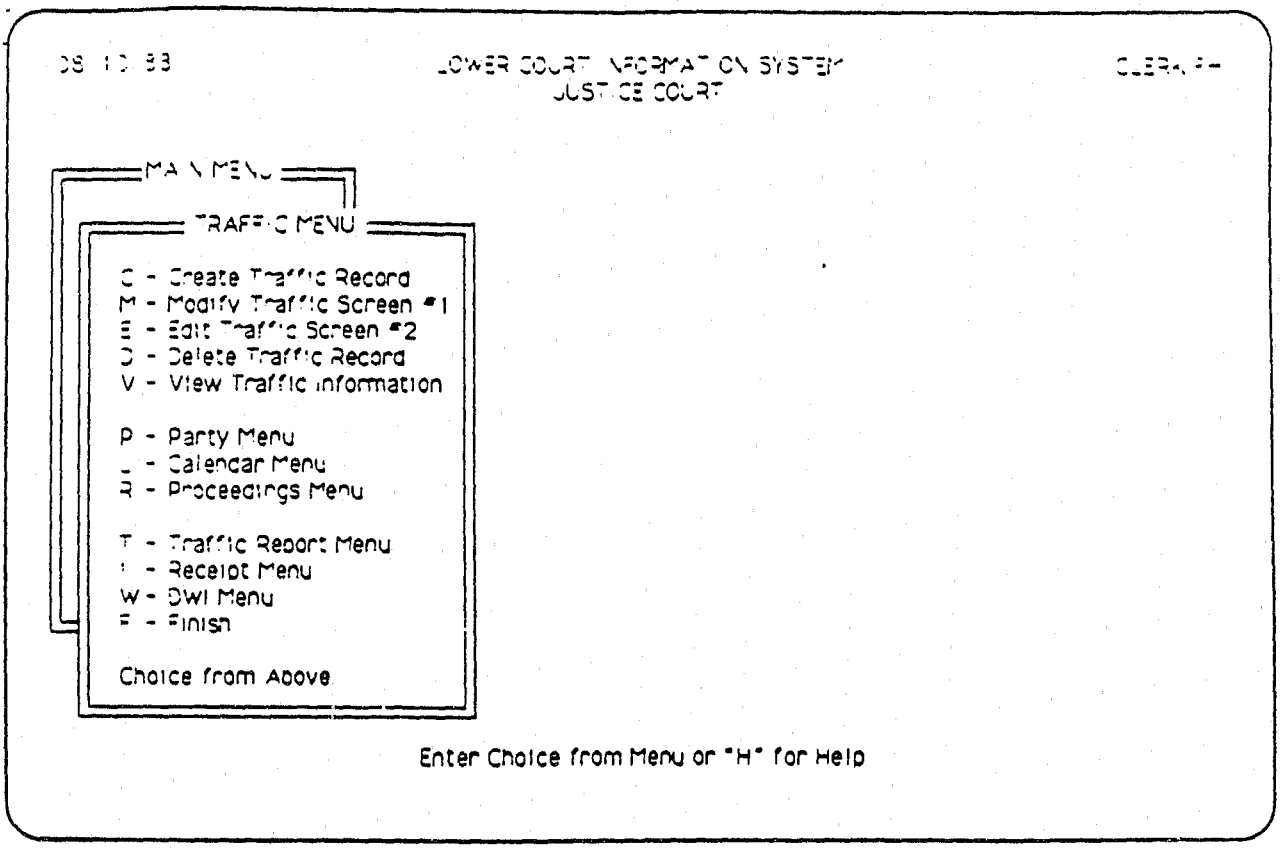
The following menus and screens illustrate the flow of citation information throughout the system. Because of space limitations, only a few of the screens are reprinted for illustration purposes.

MAIN MENU
FIGURE 1



After typing "LOCIS" at the C prompt (or appropriate Network prompt for multi-user systems), entry to the LOCIS database is permitted by the user typing a user ID and non-displayed password on the entry screen. The main menu (Figure 1) is then displayed, illustrating the options available to the user. Each of the displayed options retrieve submenus, which provide detailed data manipulation capabilities for each category.

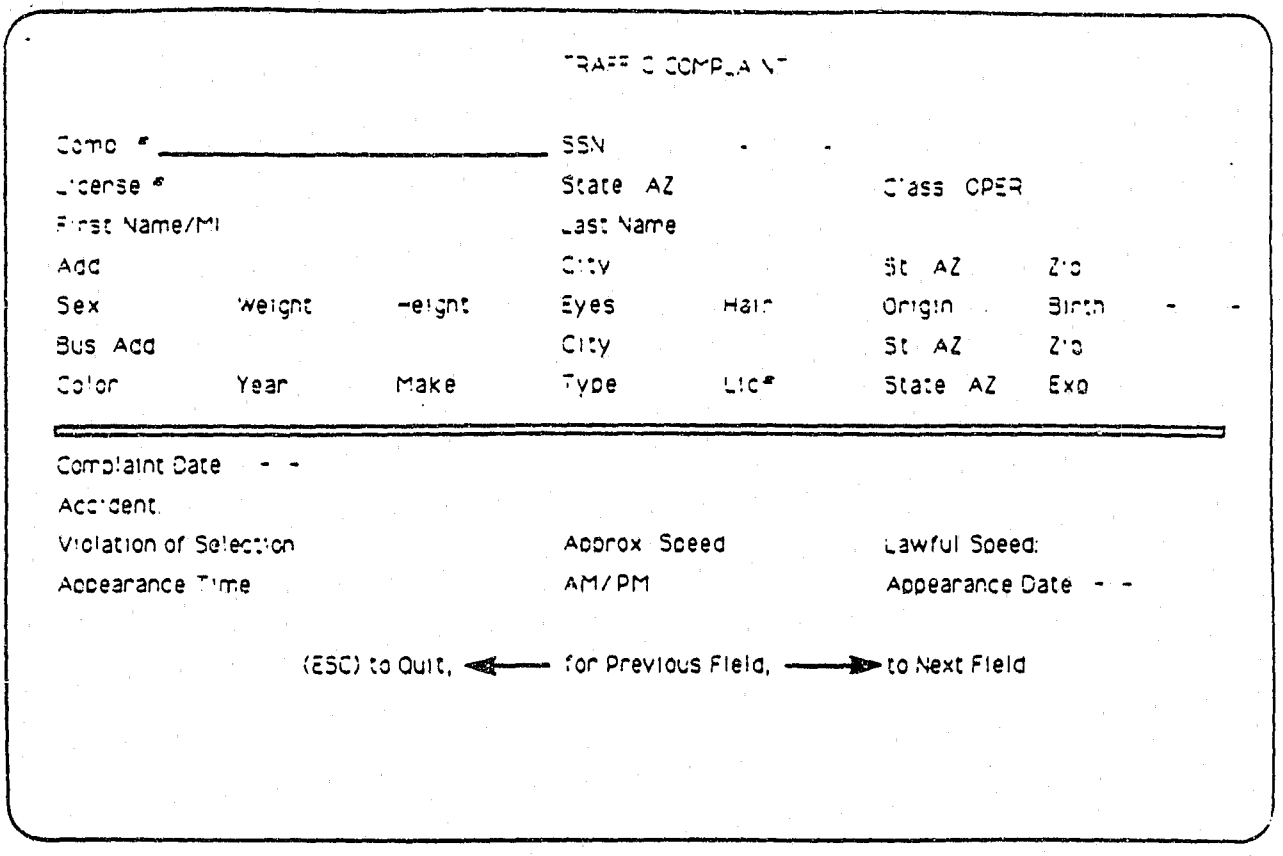
TRAFFIC MENU SCREEN
FIGURE 2



This screen and those that follow illustrate a traffic complaint from initial filing through final disposition. Upon receipt of the traffic citation, the user selects the Traffic Docket option 'T' from the LOCIS Main Menu screen. Once in the Traffic Menu (Figure 2), the user will select option 'C' to "Create Traffic Record". The Traffic Complaint screen is then displayed.

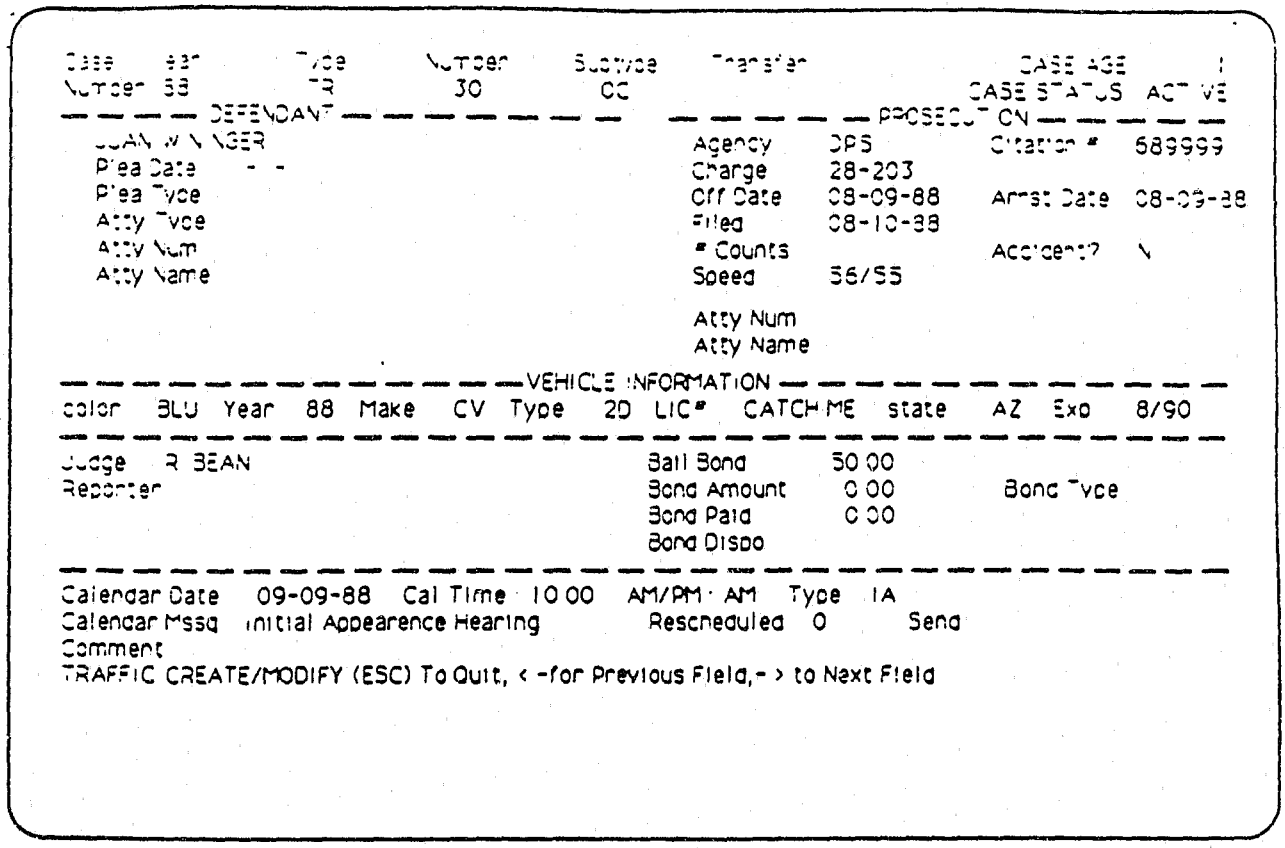
Layering the menu screens, as illustrated above, allows the user to quickly note their path through the system.

TRAFFIC COMPLAINT SCREEN
FIGURE 3



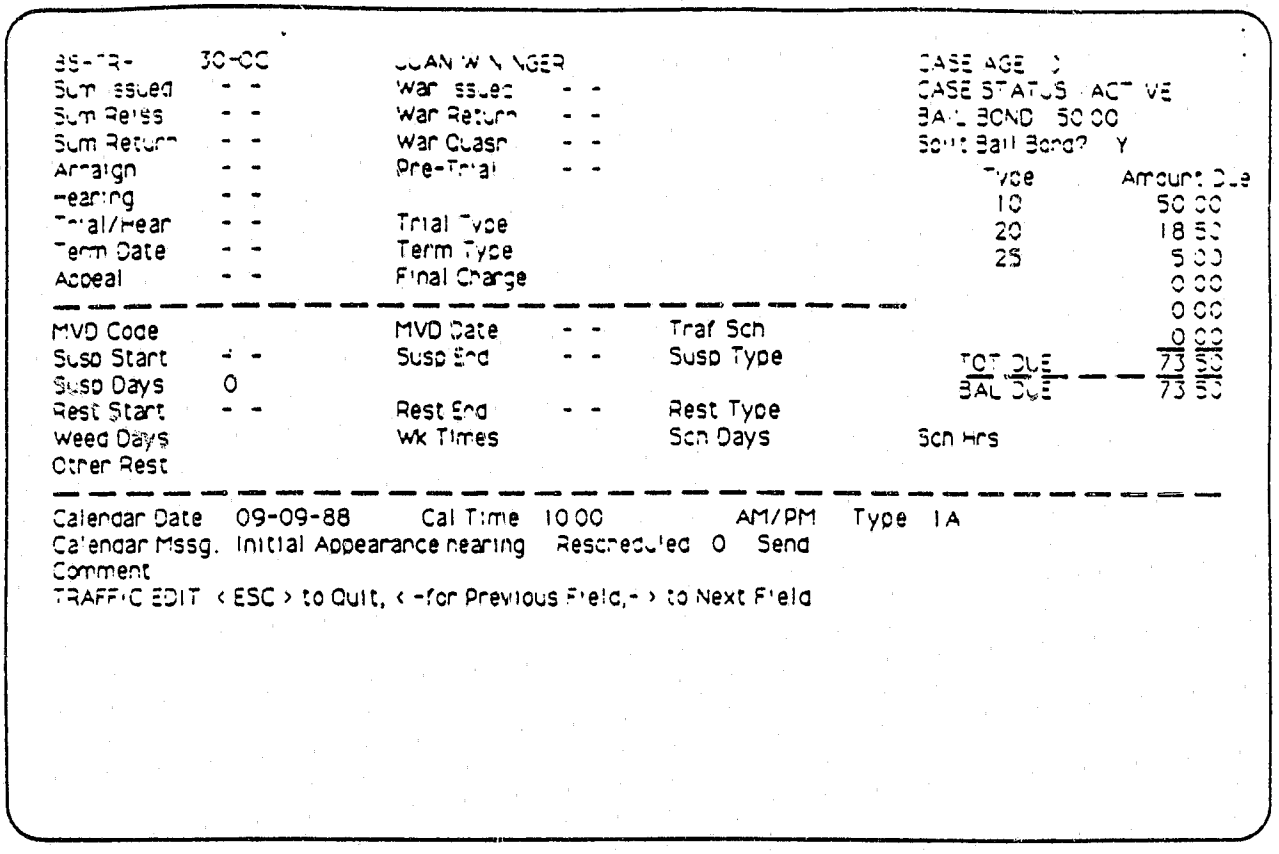
Using the citation as the source document, the user enters all appropriate data into the Traffic Complaint Screen (Figure 3). Once the information has been entered, the system automatically displays a docket record for the case.

DOCKET SCREEN
FIGURE 4



A number of fields in the docket record (Figure 4) are system generated: Case Number, Case Type, Case Age, and Case Status. Bail Bond is posted based on the charge entered. Calendar information is also generated based on the Appearance Time and Date entered on the Traffic Complaint screen. Calendar information is user-modifiable. Once the data is correct, the system automatically creates the case record, party record, proceeding entry, and calendars the case. This completes initial entry of the case record.

EDIT TRAFFIC SCREEN #2
FIGURE 5



Docket events are entered through the Edit Traffic Screen #2 (Figure 5) option on the Traffic Menu. This screen is used to enter guilty pleas, pleas of responsibility, failure to appear, etc.

In LOCIS version 2.0, if the information entered results in final disposition of the case, the funds are automatically distributed into the proper accounts as shown on the Edit Traffic Screen #2.

Fee/fine collection will be done through the Accounting Menu scheduled for release in January 1989. Currently, the Oro Valley site uses the Q&A (™) database package for entering and processing fee/fine collection data. When the January 1989 version is released, Oro Valley hopes to eliminate use of the Q&A (™) package for this activity. NOTE: Q&A (™) is marketed and supported by Symantec, 10201 Torre Avenue, Cupertino, CA 95014 (408) 253-9600.

Management Reports

A number of statistical and management reports are available to users. In addition, ad hoc report requests may be generated using KnowledgeMan/2 (™) DBMS capabilities.

The *Criminal Case Docket* report provides a listing of the Criminal case record, Criminal date information record, the Proceedings record, and the associated party records for a user-specified case.

The *Traffic Case Docket* report provides a listing of the Traffic case record, Traffic date information record, the Proceedings record, and the associated party records for a user-specified case.

The *Civil Case Docket* report provides a listing of the Civil case record, Civil date information record, the Proceedings record, and the associated party records for a user-specified case.

The *Tickler Report* prints, by case type, the case number, tickle date, and tickle message for a user-specified date as well as for those dates prior to that date that have not been deleted.

The *Warrant Report* prints a listing of all outstanding traffic case warrants and outstanding criminal case warrants as of a user-specified date. The listing includes case number, party name, and date warrant was issued.

The *Pending Cases Report* provides a listing of all pending cases for a user-specified date range. The listing includes case number, party name, and filing date.

The *Party Index* prints an alphabetic listing of all party records. The listing includes party name, case number, and date of birth.

The *Attorney Index* prints an alphabetic listing of all attorney records. The listing includes attorney name, attorney number, and telephone number.

The *Party/Attorney Labels* option allows the user to generate mailing labels for a user-specified party or attorney.

The *Monthly Statistical Report* option generates the monthly statistics for a user-specified date.

The *Suspended License Report* lists all active cases with open suspended licenses. The report includes case number, party name and suspended license date.

Utility Functions

The Backup/Utility Menu provides system backup capabilities and various system utilities to the system administrator. The Backup function performs two types of backups necessary for system maintenance daily backup and an archival compression of the data. The daily backup routine deletes all case calendars that are more than 30 days prior to the backup date. In addition, this option backs up all data files onto floppy disk or tape drive. The archival compression routine copies "deleted" files from the system and stores them as archive copy on floppy diskette. Old cases are purged from the main system, yet retained on diskette to comply with the records retention schedule. The Utility function allows the user to set and reset case numbers and the year. It also provides the ability to establish and maintain user information, user names and passwords.

Security

Five levels of security are supported by the system. Every user is assigned a user ID and a password (which does not display on the screen at the time of input). Adding or changing logons requires System Administrator level access to the Backup/Utility Menu. Data files are encrypted and file and record level security is supported in the network versions by the Vines operating system.

Documentation

Documentation provided by the AOC for courts acquiring the software include a user's manual containing detailed instructions for operation of the system features and functions. Copies of the screens and output reports are appropriately placed throughout the manual for illustrative purposes. Also included, are instructions for installation of KnowledgeMan/2 (™) and the LOCIS application software.

Hardware Requirements

The minimum hardware configuration is an IBM PC/Compatible XT or AT level machine. The AT level machine (Intel 80286 processor) is recommended because of performance capabilities. A minimum of 512k RAM and a hard disk is required to operate the system in a single-user

environment. If the court plans to install the LAN version under Banyan, the VINES operating system requires 20 megabytes of hard disk and the DBMS product requires 1.5 megabytes of hard disk. The data files require a minimum of 1,024 bytes per record under the current file structure. The system does not support variable length records, hence more space is required. The Oro Valley site has entered approximately 7,500 records and have used over 45 megabytes of storage for the application software, operating system and data files.

The Oro Valley Magistrate Court has installed a Banyan Local Area Network which consists of a dedicated 16-bit, 80286-based network server running the Banyan Vines network operating system. The workstation configuration includes three 16-bit, 80286-based AT level and one 8-bit, 8088-based, XT level IBM compatible workstations. A dot matrix printer is also connected to the LAN for printing letters and documents. A variety of printers are supported, but choice is dependent on the hardware configuration at the site.

Transfer Issues and Conclusion

LOCIS provides an excellent automated solution for the small, non-automated limited jurisdiction court seeking to manage their caseload and fine/fee collection process in a more effective manner. Through database design and use of coded entries, the system offers flexibility to the recipient site in modifying and/or enhancing the basic system.

The Arizona AOC has copyrighted the application software and documentation in order to prevent the product from being sold. There is no charge for the LOCIS software and it has been given to many courts in the state and throughout the nation. Telephone support will be offered to courts inside Arizona, but support will not be available for out-of-state installations. AOC technical staff are currently working to enhance the accounting module, statistical reporting capability and to develop communication links to the DEC VAX machines at the AOC for the transmittal, through electronic mail, of traffic citation data to the state Motor Vehicle Department (MVD).

Customization is possible through the Backup/Utility Menu. Several tables are established and maintained by the user: case number, court ID, user password, citation, and chart of accounts. Through the Court ID Setting option, several variables relating to the court such as name, address, telephone number, judge's name, and MVD court code are entered. This information is used throughout the system on various screens, reports, notices and letters. The court may produce ad hoc reports through the KnowledgeMan/2 (™) DBMS product.

The KnowledgeMan/2 (™) product is available for a variety of computers: IBM PC, XT, AT, RT, Models 30, 50, 60, 80 and a wide variety of "IBM compatibles". It also operates under the DEC VAX-11, Micro Vax II VAXMATE Systems. It runs under MSDOS, PCDOS, some UNIX-based systems such as IBM's ADX, AIS, BANYAN Vines, as well as the DEC VAX/VMS operating systems. Courts selecting LOCIS for transfer must purchase either the single-user runtime version of KnowledgeMan/2 (™) ($50.00) or the multi-user version for LANS ($150.00) in order to run the product. The full version of KnowledgeMan/2 (™) is available from MDBS for a one-time fee of approximately $600-$50,000 dependent on the system configuration.

NOTE: Transfer of the AOC's LOCIS system to one or more of the aforementioned environments may require application and/or system level code changes for compatibility. No guarantee is expressed or implied for compatibility of LOCIS to any of these environments. The system requires MS or PCDOS 2.1 or above to operate in the microcomputer environment.

APPENDIX I.E

May 1, 1985

MONTGOMERY COUNTY PRE-RELEASE CENTER

THE IMPACT PROGRAM FOR CHRONIC DUI OFFENDERS

IMPACT means "Intensive, Management Program for Alcoholics needing Correction and Treatment."

I. Mission: To increase community protection from the offender who repeatedly drinks and drives.

II. The Target Group - The IMPACT Program is designed for the chronic DUI/DWI offender who repeatedly has driven while under the influence of alcohol, has been arrested and received sanctions through the criminal justice system, but for whom probation and out-patient intervention has not eliminated the drinking and driving behavior. Such individuals have been convicted of DUI or DWI at least three times in the last five years and typically such individuals have no other contacts with the criminal justice system except for the drinking and driving issue.

III. Available Alternatives and Program Rational - The Court has most likely imposed fines, ordered alcohol treatment, placed the person on probation, ordered some form of alternative services for the repeat DUI/DWI case. It is assumed that all first DUI/DWI cases have been through a DWI treatment program (26 sessions of treatment) and second DUI/DWI offenders have been through the Health Department Alcohol Program. The repeat offender is likely to be a probation violator also. The Judge in sentencing the repeat DUI offender has had the option of continuing probation with treatment again, ordering up to 60 days in confinement or ordering "weekends" in jail. After the third DUI/DWI offense and a probation violation pending, confinement of the offender tends to be the outcome. Weekends in jail has a limited, long term value as well as creating the problem of overcrowding on weekends at the County's Detention Center. Sentencing an individual to 60 days in jail impacts negatively on the person's employment and family situations and does not really deal with issues underlying the continued abuse of alcohol.

The IMPACT Program for Chronic DUI Offenders is designed to fill this void. Participants are incarcerated for a weekend (Friday evening to Monday morning) and then are transferred to a highly structured treatment oriented Pre-Release Center program (A 60 day sentence will result in a 45 day stay at P.R.C.). During this period of residential care, they receive intensive alcohol treatment services from the Health Department as well as specialized services from the Pre-Release Center. The participants work in the community at their regular jobs, but

then return to the Center where they live and are closely monitored. After their stay in the Pre-Release Center program, they are released on probation supervision where they continue in their alcohol treatment. Thus, there is a combination of control and treatment services not previously available. (Sentence range 60 days to one year.)

IV. Goals of the IMPACT Program:

- o To provide a residential alternative between the extremes of jail and probation which encompasses both loss of freedom (consequence for repeated illegal behavior) and intensive treatment.

- o To Insure DUI/DWI offenders are detoxed and then closely monitor and test participants to detect any alcohol abuse (or drug use).

- o To provide immediate opportunities for DUI/DWI offenders to change themselves and those conditions that brought them into conflict with the law (i.e., through counselling, Life Skills training, alcohol education and treatment, family therapy).

- o To increase the offender's sense of responsibility and encourage the development of more appropriate behavioral responses in adapting to one's work role, family role, and leisure role in the community.

- o To release DUI/DWI offenders back into our community with a stable foundation of employment and housing and with a greater capacity to cope with their social environment.

V. Capacity and Intake of the IMPACT Program:

The IMPACT Program is a joint program operated by the Montgomery County Pre-Release Center, the Health Department's Alcohol Treatment Services, and Parole and Probation Services. The IMPACT Program's capacity is dictated by the bedspaces available for the residential portion of the program. One section of the Pre-Release Center has been set aside for the specialized program which has 40 bedspaces for males and 3 for females. Because of the relatively short residential stay (60 day to 180 day sentence), the total intake capacity of the program is over 100 per year. (If available, additional beds are used for IMPACT.)

Referrals to the program may come from a Probation Agent, the Defense Attorney, the State's Attorney, or from the Judge. The individual is prescreened prior to entering the program in accordance with Article 27, Section 645T of the Anotated Code of Maryland entitled, Montgomery County Work Release/Pre-Release Program, and in accordance with Chapter 13, Article 2, Paragraph 13:14, and 13:15 entitled, Eligibility, Selection and Assignment Procedures. This screening process includes an in-depth interview, alcohol abuse assessment, psychological evaluations, records checks, and scoring of prediction scales. As a result

of this screening, the P.R.C. Administrator must approve the defendant for involvement in the IMPACT program. If approved, the P.R.C. Director will provide a written recommendation to the sentencing Judge who then determines final approval. Defendants may not be ordered directly into the program. Typically, individuals are prescreened prior to sentencing and a positive recommendation for the IMPACT Program is made by the P.R.C. Director to the Court. The Court orders 60 days or more confinement and then approves placement into the IMPACT Program. The date of entry is determined by the P.R.C. Administrator so that the applicant can be assured that a P.R.C. bed is available and the "weekend turnaround" arrangement is guarenteed.

A program participant's involvement starts with the screening interview followed by the completion of the "Life Plan." If the applicant is recommended for the IMPACT Program, he/she meets with a counselor at the Pre-Release Center to accomplish an "IMPACT Program Behavioral Contract." Then the participant is given a reporting date, enters the Detention Center on a Friday evening at 6:00p.m., and then is transferred out of the Detention Center to the Pre-Release Center Monday morning. The participant goes through orientation Monday afternoon and moves his belongings into the facility Monday evening. (This is the "weekend turnaround" process where the defendant enters the Detention Center Friday 6:00p.m. and transfers to the Pre-Release Center Monday morning.)

In summary, the basic criteria for entering in the IMPACT Program for DUI/DWI offenders is:

- They must be a repeat DUI/DWI case.
- They must meet the basic eligibility criteria for the P.R.C.
- The individual must volunteer for this alternative and complete a behavioral contract.
- The P.R.C. Administrator must recommend the case (weekend turnaround).
- The Court must sentence the individual to at least 60 days and approve the person for the IMPACT Program through P.R.C.

VI. Program Elements of the "IMPACT PROGRAM":

o Alcohol Assessment and Program Contracting - During the initial screening process into the Program, the participant is assessed relative to the nature of the alcohol abuse. After acceptance, the client completes a "life plan" and on the basis of this develops a behavioral contract with a counselor which stipulates his/her goals and strategies to be accomplished while in the IMPACT Program.

o Joint Case Assessment and Treatment Planning - The second day at the Pre-Release Center, the resident meets with the P.R.C. Unit Staff (a treatment Team composed of a Unit Supervisor, Work Release Coordinator, Community Release Coordinator,

Counselor, Life Skills Trainer, Resident Supervisors, Consultant Clinical Psychologist, and Interns), the Alcohol Counselor (Health Department - Alcohol Treatment Services), and the Parole and Probation Agent. After reviewing the individual's intake information and a 45 minute Team interview with the client, the entire team staff assesses the case and jointly develops a treatment plan.

- The Alcohol Treatment Services Counselor assigned the case initiates the alcohol treatment plan immediately.

- The Behavioral Contract is finalized between the client, the Alcohol Counselor, and the PRC Counselor within 10 days.

- Behavioral Expectations are set - The participant is expected to totally abstain from alcohol. Alcoholic testing occurs each morning before going to work, after work on returning to the Center, and one additional random test after 8:00p.m. each evening. Any abuse of alcohol results in a minimum of 48 hours incarceration in the Detention Center. The participants are also expected to be accountable for their whereabouts at all times and to participate fully in the Pre-Release Center Program. Responsible behavior is expected at all times and is required for freedom. Responsible behavior over a period of time results in some weekend pass time with a sponsor.

- Employment - The P.R.C. Work Release Coordinator provides vocational assessment, job placement, and work adjustment counselling to participants. Those clients who already have jobs can return to work Wednesday (thus, missing only two days of work).

- Alcohol Education and Life Skills Training - The IMPACT Program participant is involved in weekly alcohol education along with their sponsor (generally a family member) and additionally is involved in weekly Life Skills training sessions. These sessions are held at the P.R.C. on Tuesday and Thursday evenings.

- Group Counselling - Each client will participate in weekly group counselling along with their sponsor. The group is run by at least a Master's Degree level contract clinician and the group members have similar issues to resolve (alcohol/substance abuse and driving).

- Involvement in A.A. - Each IMPACT Program participant is expected to attend a minimum of three (3) A.A. sessions per week in the community. Verification of attendance is conducted by P.R.C. staff.

- Family/Couples/"Sponsor" Involvement - The person closest to the client (generally the person who the client will be residing with when released) is interviewed by PRC and Alcohol Treatment Service counselling staff. Based upon this intake session, a treatment agreement is signed which commits the

sponsor to involvement in a treatment program with the IMPACT client (alcohol education and counselling). The sponsor also is encouraged to attend Al-Anon meetings once a week in the community.

- o Alternative Leisure Activities - The P.R.C. Primary Counselor focuses on the use of spare time in enjoyable, constructive activities (using the Reality Therapy techniques). The time previously spent intoxicated during leisure now must be filled with positive stress reducing activities.

- o Health - The P.R.C. staff provides a healthful, balanced, nutritious diet. Education on health, diet, and exercise is provided and alcohol related health issues are addressed. Each client is strongly encouraged to take advantage of the various exercise opportunities.

- o Community Residency - If housing is a concern, the P.R.C. Community Release Coordinator will assist the client in obtaining suitable housing prior to release.

- o Driving - Participants in the IMPACT Program are not allowed to drive (even if they have a valid driver's license) except if that driving is done as a part of their employment and then may only be done during the hours of employment with the approval of their employer.

- o Post-Release Supervision and Treatment - The client meets with their Probation agent prior to release. Supervision is provided by a State Probation agent located at the Pre-Release Center so coordinated services can be realized between agencies. After release, the IMPACT participant is expected to continue the treatment (i.e., the counselling group and A.A.). The Pre-Release Center will provide follow-up services as needed (i.e., re-employment if necessary). Additionally, when the participant routinely returns to the Pre-Release Center for contacts with their Probation Agent, they will receive alcohol breath tests. These services will continue as long as they are deemed necessary for the particular individual. In no case will this period be shorter than 6 months after discharge from the Pre-Release Center.

VII. Cost:

The IMPACT Program has been made possible by the reallocation of existing resources. The participants must pay:

(1) 20% of their gross income up to $300 a month maximum to P.R.C. for the residential portion of the program (6 weeks);

(2) Full fee payment for 6 week Alcohol Education - Life Skills Session (unless client is on public assistance or medical assistance); and

(3) Fees for the specialized Alcohol Treatment Services which are assessed by the Health Department on a sliding scale basis.

VIII. Referrals Procedure for Judges, Attorneys, and Parole/Probation Agents::

Referrals for IMPACT Program screening may be made by the Court, State's Attorney, Defense Attorney, and Probation agents. Screening for the IMPACT Program should be accomplished prior to acceptance of a plea or prior to sentencing. When screening for a client is needed prior to plea acceptance or sentencing, the Defense Attorney should do the following:

- Contact the Screener or by phone (468-4200) to advise of the request. The Screener is located at the Pre-Release Center near White Flint Mall.

- Follow up this call by letter to the Screener providing pertinent information (i.e., sentencing date, sentencing judge, criminal trial number).

- Instruct the client to call the Pre-Release Center (468-4200) as soon as possible to set up a screening appointment. This part of the screening process is made of two activities: (1) an interview of approximately one hour, and (2) psychological testing which takes approximately two hours (for a total of approximately three hours). Defendants should be instructed:
  a. To call the Pre-Release Center to schedule a screening appointment as soon as possible.
  b. To keep the appointment.
  c. To be on time for the appointment.
  d. To be sober - alcohol and drug free - when coming to the Pre-Release Center for screening.

Attorneys should allow a minimum of 15 work days (three weeks) for the screening staff, the psychologist, and the P.R.C. Director to complete the screening process and forward a written evaluation and recommendation to the Court. Copies are sent to the Defense Attorney and the State's Attorney. Data used in this process include the interview information, criminal history, the police report, information from other agencies, objective scales (P.R.C. Suitability Selection Scale and Alcohol Assessment Scale), as well as the background and psychological information. Any significant or circumstantial information attorneys can provide is useful.

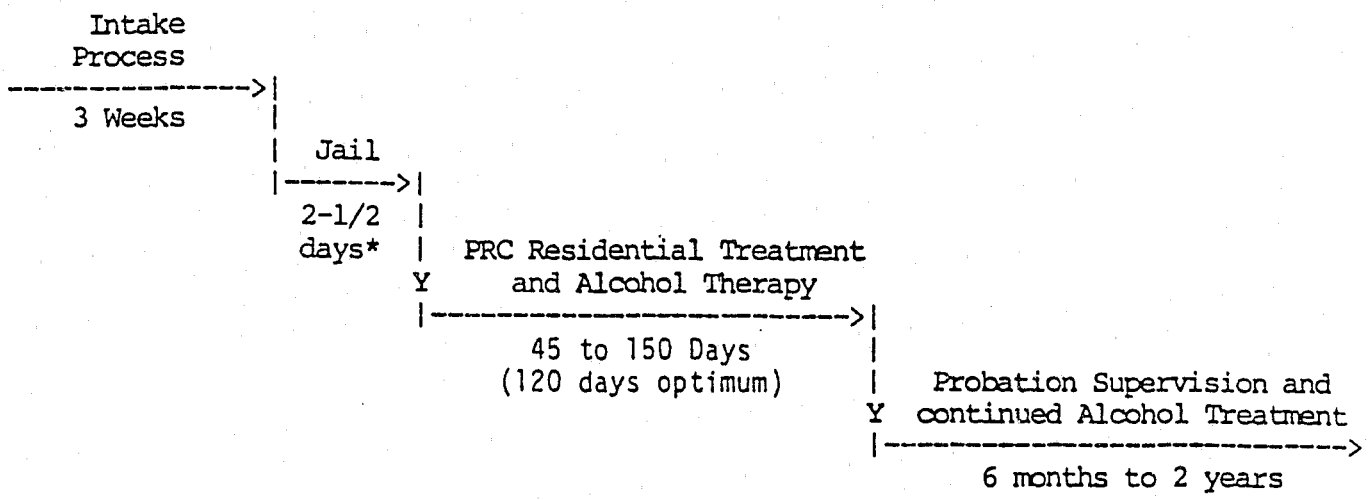
The Correctional Screener accomplishes screening interviews on Monday afternoons and evenings at the Pre-Release Center to provide prospective applicants the opportunity to accomplish this process with the least interruption to work, school, etc.

IMPACT PROGRAM:

ACTIVITIES AND REQUIREMENTS OF PARTICIPANTS

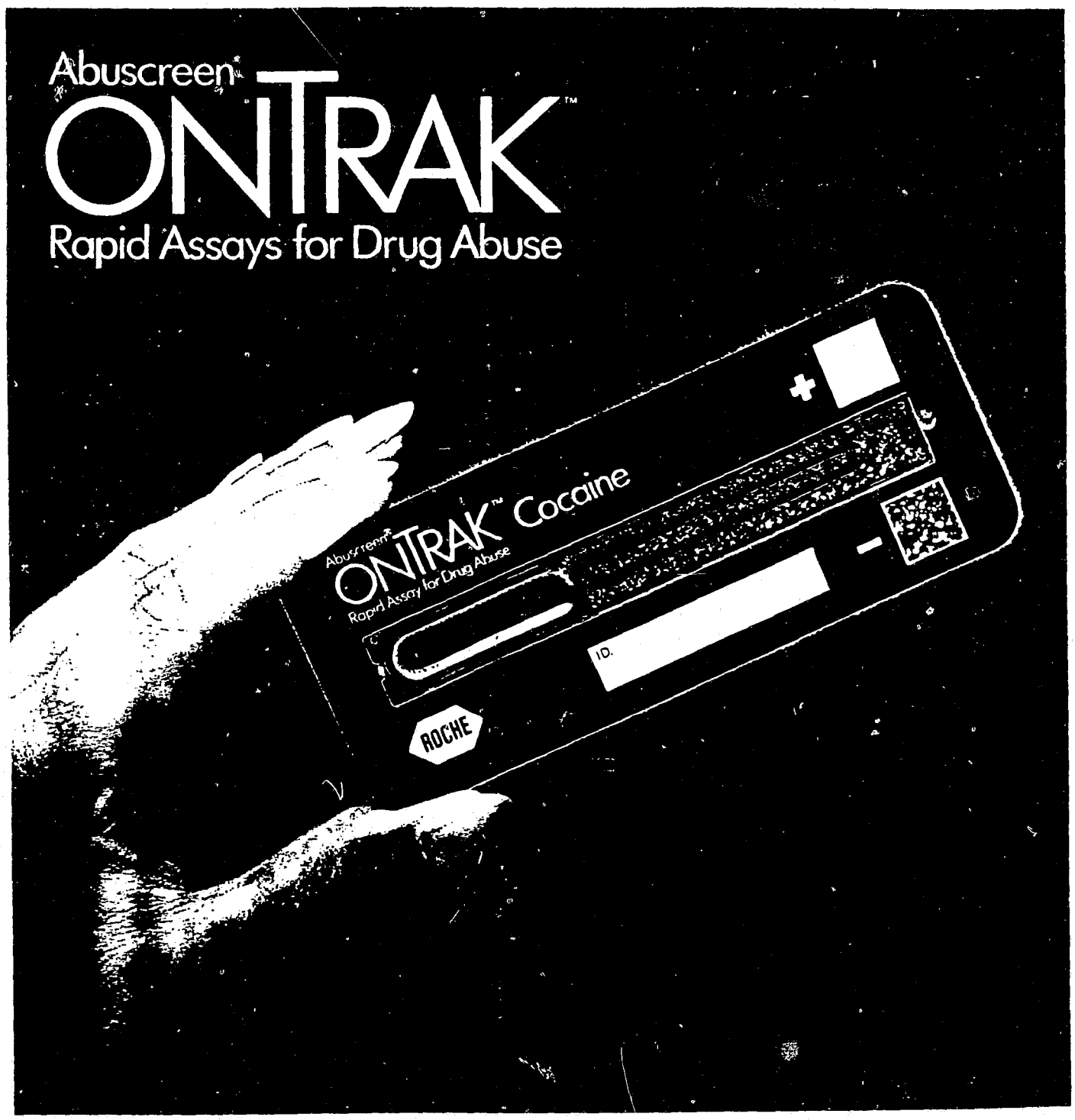
- Screening for IMPACT Program (at PRC).
- Complete a "Life Plan".
- Develop an IMPACT Program contract.
- Report to the Detention Center Friday evening for 1 weekend in jail.
- Transferred to the Pre-Release Center the following Monday.
- Meet with treatment team (PRC staff, alcohol treatment staff and Probation Agent) for comprehensive intake.
- Complete a specific alcohol treatment plan with the A. T. S. caseworker.
- Obtain full-time employment or return to one's job.
- Participate in GED training or college classes (optional).
- Participate in weekly alcohol education classes with sponsor for 6 weeks.
- Participate in weekly Life Skills classes for 6 weeks.
- Meet with the PRC primary counselor once per week.
- Attend weekly A. T. S. group counseling with sponsor once per week (may start on the 7th week, depending upon scheduling).
- Attend health education classes on diet, exercise and the impact of various foods and drugs on the body.
- Evaluate past peer choices and make plans to participate in only constructive peer activities.
- Develop an on-going leisure activity (at least weekly) and plan a new leisure activity at least monthly.
- Submit to 3 alcohol breath tests daily while at the PRC and periodic tests thereafter.
- Prohibited from driving a vehicle while at the PRC (exceptions only for driving as required by an employer).
- Pay 20% of one's gross income to PRC; and pay for alcohol education and therapy fees on a sliding scale basis.
- Locate suitable housing prior to release from PRC.
- After release from PRC, meet with the Probation agent at least monthly.
- Continue the alcohol tr. atment plan after release as long as deemed necessary by the A. T. S. case manager and the Probation Agent.

THE IMPACT PROGRAM PROCESS



* If detox is required, may be up to 2 weeks.

REVOLUTIONIZE YOUR DRUG TESTING SIMPLY AND ECONOMICALLY. ON SITE. IN SIGHT. ON TIME. ANYTIME.



THE ASSAY DESIGNED TO DRAMATICALLY CHANGE YOUR DRUG TESTING CAPABILITIES...

Fast setup with results in approximately three minutes.

Convenient to perform on the spot, at any location.

Simple procedure requires virtually no technical training–anyone can perform the test in just four simple steps.

Economical testing with no equipment–a test kit and pipetter are all you need.

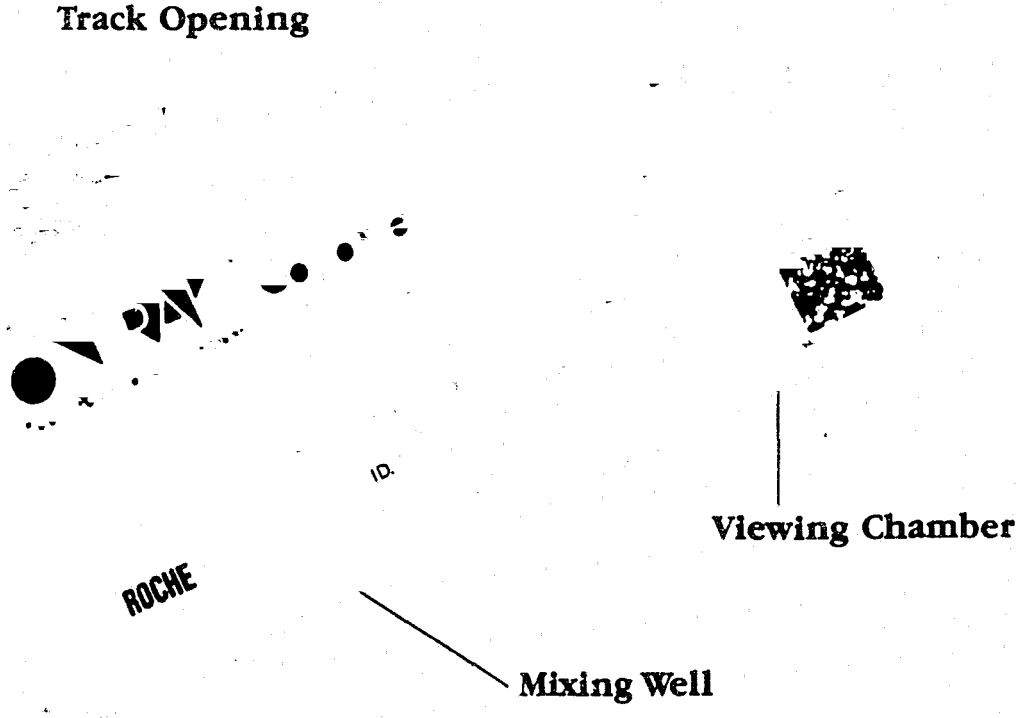
Clear, objective, easy-to-read "yes" or "no" results–negative results form particles (agglutination occurs); positive results have a smooth, milky appearance.

Reliable–proven in clinical studies.

New Abuscreen ONTRAK is designed to provide an accurate, objective "yes" or "no" response that can be read–on site, in approximately three minutes. ONTRAK is also useful in case management because you and your clients can both watch the results develop.

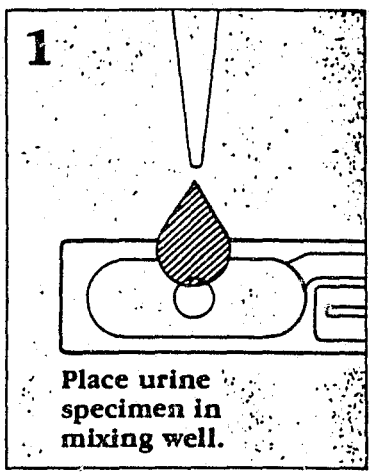
From a leader in drug abuse testing

Developed by Roche Diagnostic Systems with extensive participation of criminal justice professionals, Abuscreen ONTRAK is the result of more than fifteen years of drug testing experience. Meeting the needs of clinical, forensic and military laboratories with a commitment to unequaled products, service and technical support, Roche is proud to extend its expertise to the criminal justice community.

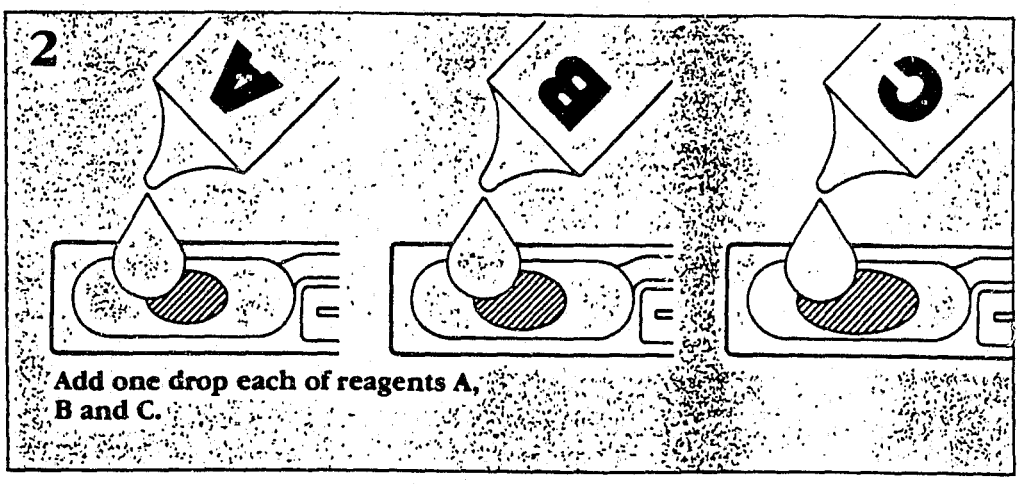


THIS SIMPLY...

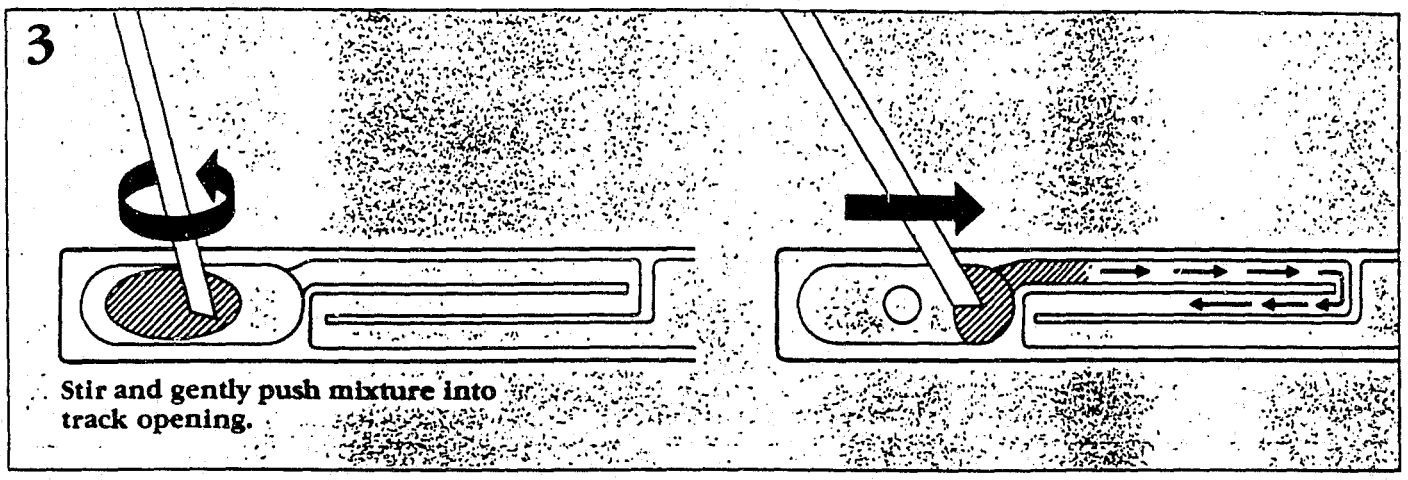
Abuscreen ONTRAK™
Rapid Assays for Drug Abuse



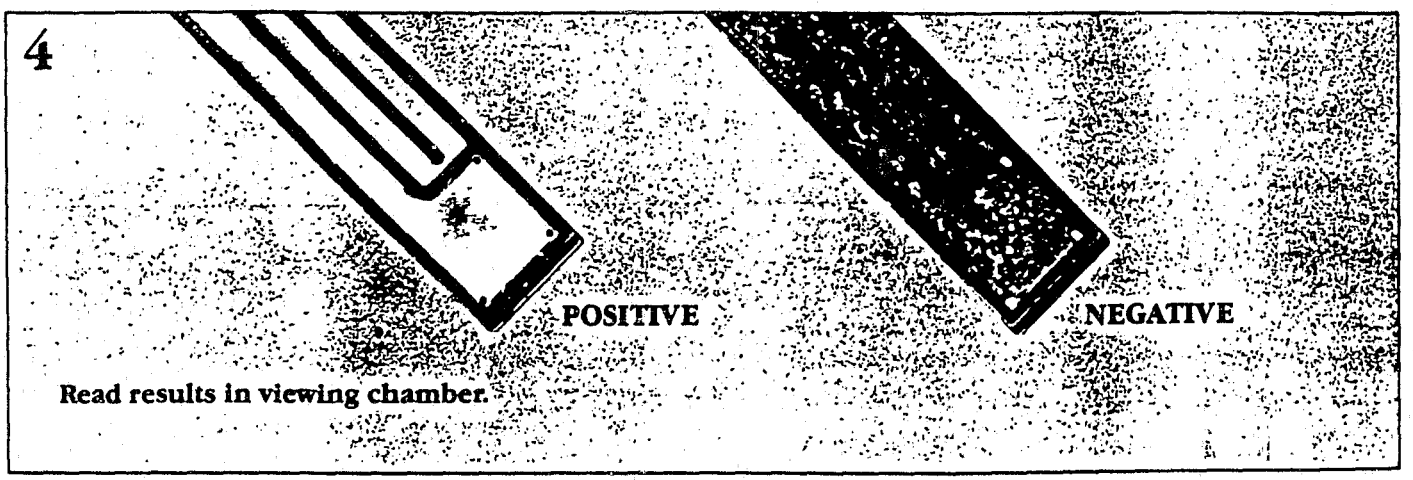
Place urine specimen in mixing well.



Add one drop each of reagents A, B and C.



Stir and gently push mixture into track opening.



Read results in viewing chamber.

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THE REVOLUTIONARY, SIMPLE-TO-PERFORM, COST-EFFECTIVE, DRUG ABUSE TEST

Ordering Information

Product	Order Number	
Abuscreen ONTRAK Pipetter	42208	
	40-test kits	100-test kits
Abuscreen ONTRAK for Cocaine	42202	42218
Abuscreen ONTRAK for THC	42203	42219
Abuscreen ONTRAK for Morphine	42204	42220
Abuscreen ONTRAK for Barbiturates	42201	42217
Abuscreen ONTRAK for Amphetamines	42200	42216

Each Abuscreen ONTRAK kit includes:

- Reagents A, B and C
- Negative Control
- Test Slides
- Simple Instructions
- Stirrers
- Pipette Tips
- Report Forms

Tests for Benzodiazepines, Methadone and Phencyclidine (PCP) are also in development.

The ONTRAK pipetter, also required, should be ordered with your first kit. Various optional items are available as a convenience from Roche Diagnostic Systems, including a workstation/carrying case for field testing use.

Product	Quantity	Order Number
Disposable Gloves	100	42210
Urine Sample Cups	50	42211
Evidence Tapes	50	42212
Extra Pipette Tips	400	42214
Extra Stirrers	400	42215
Workstation/Carrying Case	1	42224

Let Abuscreen ONTRAK help you solve the problems of drug abuse.

For more information on Abuscreen ONTRAK, for technical assistance, or to order, call 1-800-526-1247.

Abuscreen® Assays provide only a preliminary analytical test result. A more specific alternate chemical method must be used in order to obtain a confirmed analytical result (see package inserts).

Abuscreen® ONTRAK™

Rapid Assays for Drug Abuse

Roche Diagnostic Systems

ROCHE a subsidiary of Hoffmann-La Roche Inc.

Roche Diagnostic Systems, Inc.
One Sunset Avenue
Montclair, New Jersey 07042-5199

APPENDIX II

NATIONAL CRIMINAL JUSTICE COMPUTER LABORATORY AND TRAINING CENTER-WASHINGTON, D.C.

The National Criminal Justice Computer Laboratory and Training Center-Washington, D.C. provides an opportunity for criminal justice personnel to obtain hands-on computer experience and unbiased technical information about computers. Criminal justice professionals and administrators interested in automation can utilize the Computer Center as an information resource on state-of-the-art microcomputer technology.

SERVICES

The Computer Center addresses the vital need for training and support experienced by both potential buyers and current systems owners. In a recent survey of 816 local governments, 47% cited inadequate staff training and 38% indicated a shortage of experienced technical staff as problems in their microcomputer automation efforts. Through the Computer Center's training, agency personnel will become better informed and confident computer users.

Training: Courses are offered on general data processing topics as well as specialized criminal justice concerns. Complexity ranges from introductory level programs to advance applications such as computer graphics and database design. Other courses focus on subjects such as automated systems planning, crime analysis, and prison and jail population forecasting The courses are two to four days in length. The Center monitors emerging issues in automated systems and can provide agencies with information on new technologies.

Technical Assistance: Information is available about current products and their capabilities, the experiences of other agencies which have adopted automated systems, and general guidelines for planning and implementing computer systems.

Product Demonstrations: The Center provides an impartial environment for agencies making purchasing decisions to evaluate hardware and software.

COMPUTER CENTER FACILITY

The Computer Center consists of a Training Center which is a 20 workstation classroom, and Computer Lab which is a product demonstration and evaluation site. The Computer Center is equipped with DOS based and Macintosh computers. The facility is located in the Capitol Hill area of Washington, D.C.

THE COMPUTER CENTER'S SPONSORS

The Computer Center is a cooperative effort of the Criminal Justice Statistics Association and SEARCH Group, Inc. Both agencies are national associations of professionals committed to bringing the benefits of technology to the criminal justice field. Through their combined memberships and program activities, these two organizations have extensive interaction with all segments of the criminal justice community. Literature on each agency's background and current activities is available upon request. Both agencies are tax exempt, nonprofit organizations.

FINANCIAL SUPPORT

The Computer Center is supported through a grant from the Bureau of Justice Assistance, U.S. Department of Justice; private sector donations; and training fees.

555 New Jersey Avenue NW, Suite 860, Washington, DC 20001
(202) 638-4155

FOR IMMEDIATE RELEASE

FOR MORE INFO CONTACT:
Hildy Saizow, Executive Director,
CJSA 202-624-8560
Dave Roberts, Deputy Director,
SEARCH 916-392-2550

NATIONAL CRIMINAL JUSTICE COMPUTER CENTER ANNOUNCED

The Criminal Justice Statistics Association (CJSA) and SEARCH Group, Inc. announce the joint development of the National Criminal Justice Computer Laboratory and Training Center/Washington, D.C. Recognizing the need for criminal justice professionals to keep abreast of advances in computer technology, the Bureau of Justice Assistance (BJA), U.S. Department of Justice, has funded CJSA and SEARCH Group, Inc. to establish a facility to provide specialized training for these individuals and to conduct demonstrations of the latest in computer technology.

The Center, which is expected to be operational in June 1988, is a public/private sector partnership with initial startup funding provided by the BJA. Donations of computer equipment and software will be sought from private sector sources.

Hildy Saizow, CJSA Executive Director stated, "It is our hope that criminal justice professionals from around the country will come to the Center to see and train on state-of-the-art technology which can help them solve real problems in their home jurisdictions." The facility will be used by policy analysts, planners, researchers, managers and staff from a wide variety of Federal, State, and local criminal justice organizations. This includes over 18,000 law enforcement, prosecution, judicial, corrections, legislative, and other administrative agencies which constitute the criminal justice community.

In the past year, SEARCH Group, Inc. established the National Criminal Justice Computer Laboratory and Training Center/Sacramento, the model upon which the Washington D. C. Center is based. Emphasizing the tremendous need for education and training, Gary Cooper, SEARCH's Executive Director noted that "for nearly 20 years SEARCH has worked to apply information technology to the administration of criminal justice. Through the establishment of the Washington D.C. Center we are able to marshall the resources of private industry and the Federal government to more effectively meet the critical technical assistance and training needs of justice practitioners."

Current plans for training courses include classes on prison population projection software, prosecutorial case management software, data processing for law enforcement managers, and computer graphics for data presentations. Additional courses may include computer systems planning, advanced statistical techniques for data analysis, data communications and distributed data processing, and various crime analysis and law enforcement application software.

CJSA is a national association of professionals who support the development of informed and effective criminal justice public policies. Organized as a private, nonprofit agency in 1974, CJSA promotes professional standards for criminal justice analysts and the dissemination and use of criminal justice information. To this end, the agency has undertaken a wide range of activities. CJSA publishes several newsletters and reports which are distributed to over 700 agencies and individuals nationwide. It has developed

(MORE)

an on-line clearinghouse for the exchange of information and technology within the criminal justice community. The CJSA staff respond to over 700 information and assistance requests a year. CJSA sponsored events such as its annual national conference and workshops draw several hundred attendees. Federally-funded research efforts by CJSA focus on policy issues affecting the States. In 1985, CJSA created the Center for Decision Support to consolidate its technical assistance and training services, and to promote the use of computer-based decision support tools by criminal justice agencies. The CJSA membership includes agency representatives from the 50 States and U.S. territories responsible for statistical services, research, evaluation, and policy analysis as well as police, court, and juvenile planners; corrections researchers; and legislative analysts.

SEARCH Group, Inc., the National Consortium for Justice Information and Statistics, is a nonprofit, public interest organization created by and for the States, and is dedicated to improving the criminal justice system through information technology. The organization has a long tradition of working in partnership with State and local agencies, the Federal government, and private industry. Since 1969 it has provided leadership in the creation of state-of-the-art information systems, responsible law and policy, and national statistical research. SEARCH is guided by a Membership Group of governor-appointees from the 50 States, the District of Columbia, the Commonwealth of Puerto Rico and the Virgin Islands, and maintains the National Criminal Justice Information Network of over 300 State practitioners. Together, the Membership Group and Network represent every component of the justice system and work to identify the technological needs and information policy issues of greatest priority to State and local agencies.

APPENDIX II.C

computer systems for automating corrections operations

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FAST INSTALLATION-TYPICALLY WITHIN 30 TO 90 DAYS

UNCONDITIONALLY GUARANTEED TO PERFORM AS SPECIFIED

- Jail Booking
- Prison Intake/Classification
- Inmate Information Database
- Inmate Tracking/Incarceration Management
  Sentence and Credit Calculations
- Mandatory Minimums
- Parole Eligibility Dates/Notification
- Inmate Scheduling/Transportation
- Banking/Commissary
- Pharmacy/Hospital Infirmary
- Drug/Alcohol/Psychiatric Systems
- Portable Dialysis/Prescription Drugs
- Inmate Industries/Inmate Payroll
- Victim Restitution/Compensation

- Custody Officer Scheduling
- Personnel/FLSA Compliance
- Grievances, Incidents, Accidents, Disciplinary Actions
- OT Equalization/Controls
- Training/Weapons Certification
- Materials Management
- Key/Lock System
- Food Services Management
- Preventive Maintenance
- Fixed Asset Accounting
- Budgetary Controls/Financials
- Statistics
- Word Processing
- Management Reports

- ADULT, JUVENILE, COMMUNITY PRO RAMS
- PAROLE/PROBATION CASE MANAGE EN SYSTEMS
- INTEGRATION WITH COURT SYSTEMS DOCKETING
- INTEGRATION WITH LAW ENFORCEM NT
- INTERFACE/COMMUNICATIONS WITH TATE MAINFRAMES