F I N A L

REPORT

Effectiveness

of the

Automated Probation Reporting System

(APRS)

Pilot Project

Presented
to
Arrowhead Regional Corrections

by

William A. Fleischman, Ph.D.

John Hamlin, Ph.D.

David X. Swenson, Ph.D.

assisted by
John Bergman

Department of Sociology-Anthropology
The Center for Crime and Justice Studies
The Center for Community & Regional Research
University of Minnesota - Duluth

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EXECUTIVE SUMMARY

The Problem

The annual increase in reported crime and the increase in sentencing is resulting in a over saturation of the use of correction placements and probation services. Many prisons, and especially jails, are crowded and operating at or beyond approved capacity. The caseloads and range of responsibilities of corrections officers have also increased to the point where adequate supervision of clients is problematic. A 1992 report on metropolitan corrections overcrowding cited a survey that found probation officers had a 112% increase in caseloads between 1983-1989 (Report to the Minnesota Legislature); a level at which adequate monitoring is difficult, if not impossible. It is estimated that county probation officers have an average adult caseload of 136 and state officers have 98 clients. In the most seriously affected areas of the country, case loads may be as high as 1000 (Whitfield, 1990).

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(1) clients being inadequately supervised for periods, often exceeding a month,
(2) probation officers being overworked and overwhelmed with the volume of cases and backlogged information on clients, and
(3) administrators having no convenient or timely means for examining case loads or exercising strategic management.

Any effective probationary program requires clients to be accountable for their behavior, provides timely and accurate feedback to the officer and client, and enables the officer to intervene early when potential problems arise.

The Pilot Project

Chapter No. 146 S.F. No. 1503 Sec. 28 passed by the 1993 Minnesota State Legislature provided for the funding of a demonstration of the feasibility of the use of an Automated Probation Reporting System (APRS). The APRS is being implemented by Arrowhead Regional Corrections (ARC) in St. Louis County and is being used to monitor adult probationers. The APRS uses a computer based biometric identification technology (fingerprint recognition) housed in a multimedia kiosk to identify clients and serves as the operating system for the management of cases involving persons who (a) have been remanded to probation or supervised release by the Courts of the 6th Judicial District or are on parole to an ARC officer working in St. Louis County and (b) are required to personally report periodically to the probation officer responsible for their case. This report presents the findings of the evaluation project which considered the effects of using the APRS to monitor probation or supervised release cases. This report summarizes the findings for the use of the microcomputer based electronic check-in system during 1994.

The APRS provides a means for monitoring clients as frequently as necessary: up to 180 people per day, or 4,000 contacts per month per kiosk (assuming equal distribution of cases across a daily schedule). The database server can handle as many clients as the capacity of memory storage. The "client check-in load" on the system is related to the amount of "grace time" allowed for check-in and the frequency of check-in required of each of the clients. Longer grace periods and more frequent check-ins could result in more clients checking in on one day than anticipated or more than the system could manage given an eight hour check-in period.

The pilot project began the process of "logging" clients on to the CHECK-IN system on 25 February 1994. Twelve probation officers have used the system. A total of 522 clients have had files established on the system. Three hundred twenty eight (328) clients were required to check in using APRS and 194 were "logged on" the system but were not required to use CHECK-IN. A total of 3440 check-ins were attempted and 3008 successful check-ins were logged. The check-in process averaged approximately three (3) minutes. It took approximately 15-20 minutes to "enroll" a client and demonstrate the use of the CHECK-IN process. The system averaged approximately 17 check-ins per day over a one month sample period in October. The check-in time averaged

about one every 30 minutes during and eight and one-half hour day. Fridays were the most often required day for check-in.

The failures on check-in were: failed due to time out (0.09 %), failure due to user quitting the process (3.5%), and failed due to Biometric ID (7.1 %). The Failure due to Biometric ID (false negative) could be due to (a) fingerprint ID, (b) incorrect entry of Social Security Number, OR (c) the fact that in addition to being used for client check-in, the CHECK-IN system as a "pilot project", was used for demonstration purposes in order to show the features of the system. As a result, some of the "failures" of the system were in fact a result of the demonstrations. Therefore, the number of failures during actual client check-in are less than the percentages listed above.

APRS was used with a range of probation clients. There are currently (1-4-1995) 378 clients active on the system. Approximately, 31 % of the cases involve assault related offenses and 25 % of the cases were theft or related to theft. The clients included those on supervised release, those on "standard probation", and those on parole.

The Research Findings

The base cost for the APRS hardware, software, and associated support from *Infotec Development, Inc. (IDI)* is estimated to be $52,500.00. There would be additional costs for adding "work stations" and necessary software, network connections, and support personnel. The magnitude of additional cost would depend upon the situation in the agency - upgrading existing systems, expansion of existing systems, or installing a new system. However these costs would not include adding an additional Kiosk and check-in station.

The first impression one may have regarding the assessment of the costs associated with the use of APRS is that as the number of clients on the system increases, the costs will be lower. While it may be axiomatic that the relative cost of the system (cost of the system divided by the number of clients) is lowered as the number of clients enrolled on the system increases, it is not necessarily the case that all other costs associated with the use of APRS as a part of probation will go down. For example, there may be no resulting reduction in the "real" (total amount budgeted) cost of probation personnel (salaries, fringe benefits, travel, etc.) or associated support personnel. In fact, one cannot expect an APRS system to operate without the necessary technical infrastructure, e.g. work stations for probation officers, network connections, etc., or to operate without support personnel trained to manage the maintenance and operation of both hardware and software.

It is apparent that there are benefits (both financial and social) that are likely to occur in other areas:

(1) APRS as an alternative to incarceration and reduction in costs related to incarceration since the CHECK-IN system offers an alternative method of client accountability. For example clients on daily monitoring using APRS would otherwise be in custody at a cost of about $50.00 per person per day.
(2) APRS used in conjunction with some other form of intensive supervision or with other aspects of probation such as group reporting, "home visits", etc.,
(3) selective use of face-to-face sessions with probationers,
(4) connection of the data files with other agencies such as Anger Management or other treatment programs and/or direct connection with "hot files" as part of a law enforcement information system which would provide information regarding status of probationers that would be available to law enforcement officers at the time of a NCIC or similar query.
(5) the software associated with the WINDOWS platform increases the efficiency and effectiveness of the use of staff time. For example, the "memo" function reduces the time it takes to write letters of notice to clients from approximately 20 minutes per letter to about 2 minutes to letter. The "notefile" function makes it possible to access client notes virtually instantaneously rather than checking through notebooks for information.

The system has features which are related to (a) the ways in which probation officers and clients interact, (b) the behaviors of clients, and (c) policies and procedures associated with the management of probation services.

(1) The system provides a means for probation check-in that does not require that probation officers choose between personal or mail/phone check in. It is therefore possible to have direct and immediate accountability without face-to-face contact with the probationer. In addition, the system offers a

"messageing" feature which makes it possible for clients and probation officers to leave messages and/or instructions.

(2) The feedback on "delinquency" or "violations" in reporting has the potential for being "instantaneous." The immediacy of the feedback would be expected to be related to the likelihood that (a) probationers would feel more accountable and/or (b) probationers would be in "violation" more quickly and therefore the CHECK-IN system would be expected to produce more "court action" as a result. Such immediate consequences are part of the process for offenders becoming aware of the relationship between their behavior and outcomes.
(3) The use of computers and associated software will make the probation process more "public" and "force" the policy issues regarding (a) who is placed on what kind of probation, (b) in what stage of the sentence are they placed on probation, and (c) with what kind of accountability and assurance of accountability. Further, the problem of uniformity of accountability measures will become much more apparent since the measures of accountability (the questions the probationers answer during check-in) will become part of a computer file format. The format is retrievable and displayed in a manner which will make direct comparisons among probationers and between probation officers a rather "straight forward" process.
(4) The software associated with CHECK-IN and with the WINDOWS platform makes it feasible to manage correspondence and file notes in a manner which reduces turn-around-time and facilitates the process of developing and maintaining efficient client-officer transaction records. Although the system used by Arrowhead Regional Corrections does not presently have an efficient interface which connects data from the CHECK-IN system with the Court Services Tracking System (CSTS), it is possible and feasible to establish links between client case files and data in CHECK-IN **"Officer"** and **"Admin"** data files.

There are a number of features related to the connection between the use of electronic check-in, the use of microcomputers and associated software for collecting and managing data, and the nature of case management practices associated with probation that were found to be worth noting.

(1) An inherent part of the probation process is that it is characterized by an emphasis on the management of a "case." Further, the administrative focus tends to emphasize the management of a set of cases assigned to one probation officer. The CHECK-IN system is designed to meet these needs. One of the strengths of the system is to provide for case management. As a result, there are currently serious limitations in providing data or information that makes it feasible to (a) use the system to manage a set of cases or (b) use the data to develop information that would facilitate the development of policy for managing specific cases within the context of an agency or department or unit.
(2) The sensitivity of the biometric portion of the CHECK-IN system has some occasional problems with false negatives. The false negative has resulted in expression of frustration among some probationers and among those who in the absence of probation officers have the responsibility for resolving problems associated with the temporary "failure" of the process.
(3) Some of the questions that probationers are required to answer during the check-in process do not have answers that are directly verifiable. Therefore, there is not a substantial difference in verifiability between having the question(s) asked using APRS and the probation officer asking the question directly in a personal interview. However, one advantage of having the question on CHECK-IN is that there is a record of the transaction between the probationer and the APRS. The questions used in the check-in process are saved in a retrievable file. It is therefore possible to determine the nature of the criteria used to hold probationers accountable and to develop a format for questions that provide the best possible operationalizations of measures of accountability. I would also be possible to establish a set of more or less uniform measures from which probation officers can choose as a basis for establishing and maintaining client accountability.
(4) APRS does offer the possibility for unsystematic assignment of cases to the electronic system as a total substitute for direct supervision and contact by the probation officer in the case management process. Some may view the system as a substitute for trained personnel who manage cases using a range of case management practices and skills.

While there are features of the APRS process that are currently responsible for limitations, the hardware and software is sufficiently adaptable that sufficient refinements and extensions can be made to make the system more responsive to the needs of clients, officers, and managers.

INTRODUCTION

The Problem

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[1] The Automated Probation Reporting System (APRS)Pilot Project uses an microcomputer based system, CHECK-IN, developed, supplied, and supported by Infotec Development, Inc. (IDI).

operating system for the management of cases involving persons who (a) have been remanded to probation or supervised release by the Courts of the 6th Judicial District or are on parole to an ARC officer working in St. Louis County and (b) are required to personally report periodically to the probation officer responsible for their case. This report presents the findings of the evaluation project which considered the effects of using the APRS to monitor probation or supervised release cases. This report summarizes the findings for the use of the microcomputer based electronic check-in system during 1994.

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An effective probation program requires clients to be accountable for their behavior, provides timely and accurate feedback to the probation officer (P.O.) and client, enables the officer to intervene early when there is a potential for problems or when problems in fact do arise, and makes it possible for administrators to make strategic decisions regarding cases and case

management.

The objectives of the project are to describe the differences in cost, nature and type of client contact, and level of supervision in probation case and system management using the APRS.

The activities associated with the evaluation of the APRS Pilot Project are as follows:

1. Met with ARC staff to develop measures of effectiveness that are relevant for meeting the grant objectives.

2. Contacted Minnesota Department Of Corrections staff, Judges, Elected Officials, and other criminal justice system agency personnel to determine the range of variables considered to be relevant for meeting the grant objectives. In the future, discussion could include persons in the Department of Social Services in order to share information related to managing client reporting for use in social service case management.

4. Explored the feasibility of making direct electronic data transfers from the client monitoring system to law enforcement in order to provide information regarding violations of conditions of probation.

5. Interviewed ARC Probation Officers using APRS to manage either part or all of their case load. (See Appendix C)

6. Interviewed a sample of ARC probation clients who were assigned to the APRS check-in process. (See Appendix C)

7. Analysis of data collected in the operation of APRS. (See Appendix B, Tables 1 thru 11)

RESEARCH DESIGN

The project research design was developed to facilitate **comparisons across and among probation cases** included in the APRS project. The emphasis is on **comparisons that relate to the effects on ARC staff and clients**.

Both **social behavior** (e.g. amount of contact time, level of control, Probation Officer schedule management, client schedule management, effects by client/case type, etc) and **cost variables** (e.g. cost of APRS hardware/software in relation to level of supervision, costs related to client contact time, costs related to client data management from APRS, etc.) are included in the design.

ARC has provided access to the Court Services Tracking System (the automated client information system that ARC has in place)and Trial Court Information System (which provides

data concerning court cases) in order to make it possible to complete the project in a timely manner and to determine the nature of the interface of APRS and "traditional" probation client data. The description of the process of moving back and forth between the existing data systems and the APRS data system is an essential element of the evaluation of the pilot project.

DESCRIPTION OF APRS

The CHECK-IN system provides probation organizations with the capability to allow probationers to check in at remote locations, removing the need for routine personal interaction with a probation officer. New probationers are enrolled in the system using biometric identification. While two identification technologies are available: fingerprint and hand geometry, the pilot project uses the fingerprint technology. In both cases, probationers are enrolled in a database with their biometric "key." Hand geometry uses an imaging device to measure finger length and hand profile. It is the most accurate method overall and is recommended for this system. Fingerprint based identification uses a flat print from one finger. The system has the capacity of recording up to five (5) fingerprint images for each case. This technique is also quite accurate and has zero incidence of false positive matching.

When a probationer checks in at a kiosk, a live biometric measurement is collected (hand or fingerprint scan) and it is compared to the enrollment sample. Once a match is established, the user can interact with kiosk to verify address, employment status, and to respond to standard questions and/or those defined specifically for each case by the probation officer responsible for the case. Users may read electronic mail messages entered by the probation officer from a central facility, and may also respond via electronic mail. Users are given instructions on screen in English or Spanish and a "host announcer" appears in a window on the screen to provide instructions. Data are entered via a touch screen.

CHECK-IN consists of two parts: one or more registration stations, and one or more interactive kiosks where enrolled users can interact with the system. These components are connected over a network.

The registration process is performed one time only: at the time a probationer is designated for a field check in the program. The enrollment is performed by a probation officer or other designated department staff member. Enrollment consists of entering base case information into a database and collecting a live scan of the probationer using the chosen biometric method. This information constitutes the client's enrollment record. The purpose of the enrollment record is to control what questions are asked of the subject and how the probationer makes use of the system. In addition to the biometric measurements, the APRS records a compressed video image of the client. It is possible to establish a "client record" which contains all client data except the biometric measurement. Once a client record is established, it is possible for that probation officer to use software that is part of the "system" but is independent of the CHECK-IN related activities.

Once enrolled, the probationer will be allowed to report to the kiosk(s) at a field site(s). The kiosk is an unattended unit somewhat smaller than a telephone booth. It includes a touch screen display, a biometric scanner, a ambient air sampler (used to sample a client's breath for alcohol), a video recorder, and necessary communication equipment. A PC class computer is housed inside the kiosk to control operation.

Users interact with the kiosk by pressing buttons on the touch screen in much the same manner as an automated teller machine. During use, a window appears on the screen where an announcer guides the user through each phase of the system usage. Stereo speakers are built into the kiosk to allows the user to hear the announcer's instructions.

Considerations in Selection of Biometric Identification Technology

Attribute	**Issues**
Accuracy	What is the incidence of false positives and false negatives? Is the method susceptible to fraud?
Speed	How long does it take to collect the biometric sample? To perform the matching?
User Acceptance	Is the method intrusive? Are users intimidated?
Ease of Use	What skills are required of users to use the system?
Reliability	How robust is the unit in an unattended field setting?
Cost	What is the unit cost?

All biometric identification systems depend on comparing an enrollment record to a live record to determine identity. Either "hand geometry or finger prints may be used for identification. The APRS Pilot Project use the finger print method for identification.

During registration, an electronic fingerprint scanner is used to capture a subject's fingerprint. Various quality metrics are computed on the print and a verification procedures is performed to ensure that a subject's print can be repeatedly identified. Once an acceptable print is obtained, it is stored in the database along with the other data elements for the subject. Two basic types of errors can occur. FALSE NEGATIVE errors occur when a person submits their biometric sample and the algorithm determines that the sample does not match the client's enrollment record. This type of error is mainly an inconvenience to users. Although, it may require some method to "manually" handle the check-in or determine the reason for the false negative. It should be noted that the false negative may occur because of (a) incorrect entry of client identification number (social security number), (b) a problem with the person's finger print, and/or (c) the surface of the finger print "reader" requires cleaning. FALSE POSITIVE errors occur when the system concludes that a live sample matches an enrollment even though the samples are from different individuals. This type of error permits fraud.

The benefits of matching accuracy of the fingerprint system are mixed. Although the rate of

false negatives is moderate (about 5% - 9%), the rate of false positives is ZERO. The fingerprint based version of CHECK-IN is most suitable for applications where the consequences of a false accept are very serious.

Failed verifications are logged by the system for several reasons. For example, consistent failure to verify may indicate a problem correctable by cleaning the glass on the finger print scanner or wiping the mirror in the hand geometry unit. An operator at the registration server can command either type of unit in a remote kiosk to send internal performance metrics, further simplifying system management. Also, it may be significant to a probation officer that certain subjects are repeatedly failing verification. Such a subject should be verified at the registration station to determine if the problem is with the enrollment record, the subject's verification procedure, or possibly the result of attempted fraudulent check in.

Interaction with the user occurs by displaying text information on the screen. The use of the feature that shows video instructions in a window, and playing of an audio track is preferred to using only one of the two methods. Whenever possible, users enter data by pressing one of several "buttons" displayed on the touch screen. Yes / No or multiple choice questions are much preferred over questions that require the user to enter a text response. For example, when the user activates the system by first touching the screen, an announcer appears in a small window on the screen and says "Welcome to CHECK-IN. To continue, you must first be enrolled. If you have already been enrolled, touch 'YES'. If you are not enrolled, touch 'NO'."

At the time the announcer says the word "YES", the "YES" button on the screen flashes and when the announcer says "NO" the corresponding button flashes. Also, buttons associated with positive responses ("YES") are colored green, while buttons for negative responses ("NO") are red. It might be noted that the color coding could present a problem for a person who has both reading limitations and is color blind.

In general, the probation population is poorly educated. Many features have been incorporated into CHECK-IN to facilitate use by individuals with low levels of educational attainment. For example, CHECK-IN is designed for a 4th grade reading level. In most cases, an audio track reads any block of standard text displayed on the screen. Where users must provide text data entry (for example to enter a new address), a keyboard is shown on the screen. The user enters data by touching the appropriate buttons, as

1 2 3 E L M S T R E E T

followed by pressing the "DONE" key. At any time, the client may make corrections by pressing "BACKSPACE" or "CLEAR," or return to a previous screen. The keyboard layout is in alphabetical order, rather than the QWERTY order associated with normal computer / typewriter keyboards.

CHECK-IN also includes a custom messageing capability. An authorized user may enter a custom message at the registration server for a specific probationer. The message will be displayed on the screen the next time that probationer checks in at any kiosk. For example, a probation officer may order a client to report to his office for a face to face meeting. Custom messages may be designated to be deleted once read and acknowledged by the probationer

(e.g., "Please call me immediately at 555-1211"), or displayed each time the client checks in (e.g., "Your next check in should be Thursday of next week").

Probationers may also enter a custom message for their probation officer. These are stored in the registration server and may be viewed on line or printed by authorized users of the registration server. It is possible for probationers to "check-in" at a time other that one prescribed by the conditions of probation in order to leave a message for the probation officer.

Documenting probationer check in is a fundamental benefit of the system. In essence, the system logs all transactions between any kiosk and the registration server. This includes both successful and unsuccessful check in attempts, all data entered by the probationer, and all messages. Information recorded for each transaction includes date, time, location, and user ID. (SEE Appendix D)

A "monitor" program makes it possible for a probation officer to learn of a check-in as the client is going through the check-in process. The program can produce a "window-in-a-window on the probation officer's Personal Computer Monitor that announces the check-in in progress.

The transaction log is primarily for use by the probation department in monitoring clients' conditions of probation. The CHECK-IN kiosk also generates a printed receipt for the user. Each receipt includes a unique bar code which identifies the transaction number.

Transaction logs are used to generate a variety of standard reports. Perhaps most useful are the exception reports, which identify probationers who should have checked in, but have not. At the time of assignment to the field check in program, the probation officer designates the frequency with which the client must appear at a kiosk (e.g. between the 1st and 5th of each month). Exception reports call out persons who have failed to meet these conditions.

Change reports document probationer generated change of address, change of work place, or other changed status information. These may be used to update other on-line information systems. It is anticipated that future custom versions of CHECK-IN will make it possible to have this update occur automatically with many types of host systems.

New users are enrolled at the registration server. The server consists of a standard desk top personal computer running the CHECK-IN registration software in the Microsoft (MS) Windows environment. The registration process entails entering client specific data into an on screen form, followed by capturing biometric data (either hand or fingerprint scan). Registration is performed by probation personnel and is the only time a face to face meeting is actually required.

Three copies of the biometric ID are taken during enrollment. The quality of the enrollment is computed automatically and if it is of sufficient quality, the sample is conditionally accepted. Next, a verification is performed. The verification process is identical to what happens at a kiosk. Only if the biometric template can be verified is it accepted as the permanent enrollment record.

The generic version of CHECK-IN stores the following information for each client.

Generic CHECK-IN Client Data Table

Field	Contents and Usage
Social Security Number	Uniquely identifies each client. Used as primary key to find client records. Must be unique. May not be modified by client.
Last Name	May not be modified by client
First Name	May not be modified by client
Middle Name	May not be modified by client
Current Street Address	
City	
State	
Zip	
Phone	
Employer	
Employer Address	
Employer City	
Employer State	
Employer Zip	
Employer Phone	
Employer Supervisor	
Probation Officer ID	May not be modified by the client. Displayed to client at the kiosk.
P.O. Phone	May not be modified by the client. Displayed to client at the kiosk.
Frequency	Establishes how often the client is required to check in.[2]
Biometric ID Type	Handkey or fingerprint, and if fingerprint, which finger(s) are used.
Biometric ID Data	Binary data of biometric template record.
Background	Text which gives client's background, such as prior arrests, conditions of probation, etc.
Question List	Customizable by administrator. Example: "Have you been arrested?"

[2] The system allows for a "grace period" associated with the required check-in date. The grace period is the length of time, in days, that the client may check-in PRIOR to the required check-in date.

Most of the data recorded in the client's record are routine. The basic check in process entails verifying the identify of the client by their fingerprint, then presenting a short set of questions to determine if the client's status has changed (Have you moved? Are you still employed at <XYZ Company>?). The generic configuration also allows the probation department to define additional questions in accordance with their policy, which will be presented to the client at each check in session. The type of the response may be defined to be YES / NO, numeric, simple text, or a dollar amount. Periodic reports can be generated for each probation officer that include the questions and answers to each of the custom items.

As noted above, the table shows the generic version of CHECK-IN. Much more elaborate series of questions / answers / branches can be configured by IDI for a custom CHECK-IN configuration. This is performed on a contract or time and materials basis.

A separate data table is maintained for incoming and outgoing messages. Messages are tagged with the ID of the recipient, the ID of the sender (probation officer or client), and a disposition (delete when read, repeat always). Whenever a probationer checks in at any kiosk, the system will search for and retrieve any waiting messages. It will also give the client the opportunity to respond, or to compose a new message for their probation officer.

Major Registration Server Components

Component	Description
Host Computer	IBM Valuepoint 486/33 with 8 Meg memory, 212 Meg hard drive, 250 Meg tape backup, 3.5" floppy, mouse, 15" VGA display, network adapter.
System Software	MS-DOS 6-2, MS Windows 3.1
Application Software	Officer - Enter new users, control probationers Admin - Database maintenance Serve - Server to kiosk interaction
Biometric Scanner	Either A) Touchsafe Internal Fingerprint Scanner with internal controller or B) Recognition Systems HandKey
Laser Printer	Hewlett Packard Laserjet IV-P
Network Software	TCP/IP runtime license
Crystal Reports	Ad hoc report generator

Each kiosk is housed in a sturdy molded plastic shell. Inside the shell, components are mounted on a steel rack. The kiosk enclosure has been carefully designed with ergonomic proportions in mind to allow any person, tall or short, easy access to the touch screen. The screen is placed at a height which allows handicapped persons access and is fully compliant with the requirements of the 1992 Americans with Disabilities Act. The kiosk controls ambient light and reflections on the touch screen by means of recessed bezels with light blocking sides and by appropriately angling the kiosk unit. Two loudspeakers and an amplifier system play high quality stereo sound. The speakers are directed down and across into the user area to control ambient sound and to provide semi-privacy.

Major Kiosk Components

Component	**Description**
Host Computer	IBM PS/2. 486/33 with 4 Meg memory, 40 Meg hard drive, 3.5" floppy, network adapter
System Software	MS-DOS 6.2
Touch Screen	IBM Model 8516 VGA touch screen display
Biometric Scanner	Either A) Touchsafe Internal Fingerprint Scanner with internal controller or B) Recognition Systems HandKey
Receipt Printer	Magnatec dot matrix printer with integrated paper handling
Network Software	TCP/IP runtime license
CHECKIN	Interaction software for probation check in

Work Station Components

Component	Description
Micro Computer	e.g. IBM Valuepoint 486/33 with 8 Meg memory, 212 Meg hard drive, 3.5" floppy, mouse, 15" VGA display, network adapter.
System Software	MS-DOS 6-2, MS Windows 3.1
Application Software	e.g. Wordperfect, dBASE, Filemaker Pro, etc.
Laser Printer	e.g. Hewlett Packard Laserjet 4L
Network Software	Local area network software compatible with Kiosk server

PROJECT COSTS

APRS Hardware/Software Costs
(AS OF 1 JANUARY 1995)

ITEM	Budget	Expenditures
Contract with Infotec Development, Inc.:		
Hardware, software, training	70,884.30	70,884,30
6 Personal Computers (MSDOS) &		
6 Laser Printers (Equipment & Assembly)	11,000.00	11,000.00
Wiring & Installation to Accommodate		
PC Workstations	4,700.00	4,700.00
Supplies	1,000.00	1,000.00
Professional Services:		
UMD Report on Pilot Project	5,899,73	5,899.73
Workstations & Related Equipment		
Purchased & Installed	1,000.00	1,000.00
Novell Upgrade	2,200.00	- - - - -
OFFICER Software	5,500.00	- - - - -
Miscellaneous Supplies	1,000.00	1,000.00
	$103,184.03	**$89,584.30**

Cost and Benefits

The base cost for the APRS hardware, software, and associated support from *Infotec Development, Inc. (IDI)* is estimated to be $52,500.00. There would be additional costs for adding "work stations" and necessary software, network connections, and support personnel. The magnitude of additional cost would depend upon the situation in the agency - upgrading existing systems, expansion of existing systems, or installing a new system. However these costs would not include adding an additional Kiosk and check-in station.

The first impression one may have regarding the assessment of the costs associated with the use of APRS is that as the number of clients on the system increases, the costs will be lower. While it may be axiomatic that the relative cost of the system (cost of the system divided by the number of clients) is lowered as the number of clients enrolled on the system increases, it is not necessarily the case that all other costs associated with the use of APRS as a part of probation will go down. For example, there may be no resulting reduction in the "real" (total amount budgeted) cost of probation personnel (salaries, fringe benefits, travel, etc.) or associated support personnel. In fact, one cannot expect an APRS system to operate without the necessary technical infrastructure, e.g. work stations for probation officers, network connections, etc., or to operate without support personnel trained to manage the maintenance and operation of both hardware and software.

It is apparent that there are benefits (both financial and social) that are likely to occur in other areas:

(1) APRS as an alternative to incarceration and reduction in costs related to incarceration since the CHECK-IN system offers an alternative method of client accountability. For example clients on daily monitoring using APRS would otherwise be in custody at a cost of about $50.00 per person per day.
(2) APRS used in conjunction with some other form of intensive supervision or with other aspects of probation such as group reporting, "home visits", etc.,
(3) selective use of face-to-face sessions with probationers,
(4) connection of the data files with other agencies such as Anger Management or other treatment programs and/or direct connection with "hot files" as part of a law enforcement information system which would provide information regarding status of probationers that would be available to law enforcement officers at the time of a NCIC or similar query.
(5) the software associated with the WINDOWS platform increases the efficiency and effectiveness of the use of staff time. For example, the "memo" function reduces the time it takes to write letters of notice to clients from approximately 20 minutes per letter to about 2 minutes to letter. The "notefile" function makes it possible to access client notes virtually instantaneously rather than checking through notebooks for information.

FINDINGS

Client Use of the System

Interviews

Seventy-five names of probationers were randomly selected and sent letters of explanation and consent forms related to the project. They were asked to contact the interviewer about meeting during their next check-in date. Of the seventy-five individuals only one responded. At that point it was decided to ask probationers at the time of their check-in if they would be willing to be interviewed and were given a consent form to read and sign. Eleven individuals agreed to the interview and signed the consent form. One individual agreed to the interview but did not wish to sign the consent form. The person was excluded from the analysis. One other person agreed to the survey but only provided the background information and did not answer any questions about APRS.

About half (six) of the 11 individuals interviewed survey had been on probation before. Of those six persons, one was on probation once before, another two times, two people three times before, one four times and the sixth person had been on probation five times previous to the time assigned to use the CHECK-IN system.

Enrollment, Training, Check-in

One person of the eleven had yet to check in by machine, one had yet to check in with the P.O. All of the others have used some combination of APRS and P.O. One person has checked in 17 times with the machine and has not checked in with the P.O. One person has checked in 5 times with the machine and ten times with the officer.

The clients were asked to provide information about the process of getting their case information; on the computer when they were first enrolled in the APRS check-in system. All said the P.O. helped and instructed them. No other comments were given to problems, positive features, or suggestions.

The clients were then asked to talk about the training they were given to use the APRS check-in system. All the clients interviewed indicated that they received adequate help and the process was easy and simple.

System Effects

When asked how the assignment to use the APRS check-in system affected them. Most agreed that is was convenient. Many stressed that they do not have to wait for the P.O. if he or she is not there or busy. The machine is less intimidating than the officer. The only

problem mentioned was that one person did no know how to change answers. As they stated, they are use to answering yes to everything and when they said yes but really meant no, they could not make the change.

There were only two clients who commented on how has the use of the APRS check-in system affected others that they usually interacted with. One of the clients said that they missed the one-on-one interaction with the officer. A second client mentioned that not having to interact with the probation officer was a positive feature. One client stated that they were now held accountable for the answers they gave

Those clients who had been on probation before were asked what difference has using the APRS check-in system made in the way they had been affected by it as a condition of their probation compared with being on probation before? Only two types of responses. They see less of P.O. They don't have to wait for P.O. if he or she is not around.

The clients were asked what they thought about the use of the APRS check-in system as a condition or your probation? They were asked to address the technology aspect of the check-in system and well as using it as a condition of probation. Most of them mention the mechanical problem of the machine rejecting their fingerprint at least once during the check-in process. They were satisfied with it as part of their probation because they did not have to wait for the probation officer and they indicated that the use of CHECK-IN was very convenient for them. The also indicated that It was quick and they could stop in when they were in the downtown area.

System Modification

Only one of the clients had any suggestions when asked what could be done to make the APRS check-in system work better for you? That person suggested that using only the last four digits of the social security number would be more convenient.

The interview attempted to get additional information by asking if there are other things that they had to say about the APRS check-yin system? There were three suggestions. One client indicated that the program does not leave enough room for messages. One person stated that one condition of probation was top stay away from drugs and alcohol; yet the machine only asked about drugs and not alcohol (That situation has since been the time of the interviews) . One person mentioned that the nice thing about the machine is that they get to see the same person on the screen every time.

Perhaps the most important aspect of the survey is the lack of responses. What does this mean? The low response rate and the non-responses to certain questions might suggest that the clients have little interest in the new technology. Perhaps it suggest that those on probation accept conditions of probation and don't see the technology as affecting them one way or the other. However, it may be a function of the "voluntary" nature of their participation in the survey.

Observations

Traditionally, one of the consequences of very high case loads for corrections officers is that clients may not be able to be seen as frequently as necessary. Many clients have problems with personal accountability and a month without seeing their officer essentially leaves them "out of sight, out of mind." Without more frequent contact these offenders are relatively free to continue drinking, leave the prescribed area, violate curfew, and engage in unauthorized activities without much concern of being "found out" (Wooten, 1985). In the past, the client has sometimes had the advantage that the officer does not have time to locate him/her, does not have current or accurate information, or does not have sufficient time to meet personally, for support, confrontation, or referral.

Most offenders also operate at a relatively low level of moral development. That is, their reasons for not offending are more related to avoiding punishment and optimizing personal gain than to regard for the law or respect for personal rights of others. The APRS enables the officer to specify the frequency for client check-in, and automatically print a one page letter notifying the client of the date and purpose of the next meeting. In addition, the software provided the officer with the option of printing a "notice to report" which can be sent in a format that is generated directly by the software. Clear and specific responsibility is placed on the client to(a) log in to the system, (b) respond to several officer defined questions, (c) provide a breathalyzer sample for alcohol use, and (d) interact with the officer when required. A magnetic strip reader (similar to a credit card) is an option with the equipment so that an client's account can be directly debited for restitution. While the entire process can take as little as 30 seconds, the frequency of check and timeliness of questions about the conditions of probation requires the client to keep these contacts in mind almost daily. In addition, either the client or the officer can request a face-to-face meeting as needed. Using the APRS it is much more likely that the officer will have sufficient time to provide a quality contact with the client. Upon completion of the check-in process a receipt indicating the time and date of the check-in is produced by the system for the client. This serves as a reminder of the check-in and also serves as a recode of check-in.

Some clients will attempt to conceal or distort information regarding their behavior that may violate their conditions of probation. Under traditional probation, such information may not be discovered for months, and by that time the original information may be misfiled. The APRS regularly presents a series of questions to the client requiring responses; failing to answer to answering in violation automatically alerts the officer for a personal contact. Clients are also informed that deception on the questions constitutes a violation, and they are prompted at data entry time to confirm that all entries are accurate. APRS contains a file of all questions and responses by date so that the officer can review exactly what the client reported. The APRS also includes video recording of the client during check-in thereby preventing the client from using a "stand-in" during breathalyzer check.

Drug and alcohol use is estimated to be high among probation clients. A study of intensive probation clients conservatively estimated that 55-75% currently used illicit drugs, and 29% had alcohol problems (Wish, Cuadrado, & Martorana, 1986; Pearson, 1988; Whitfield, 1990). However, drug and alcohol related offenders have also been found to have the highest

success rate under intensive supervision due to the higher personal accountability (Pearson, 1988). A well controlled study of alcoholic clients found that intensively supervised clients had a significantly higher employment rate than regular supervision clients (Latessa & Travis, 1988). It has also been argued that different DUI offenders have varied responses to traditional probation and require different levels of supervision (Wells-Parker, et al., 1989). Early intervention and increased attention to alcoholic clients by probation officers has been found to increase their response to treatment and to decrease problems (Cunningham, 1980).

Recommendations for further development and use:

1. The current breathalyzer check involves sampling of ambient exhalations in the proximity of the kiosk, and reports the presence of alcohol. While presence alone is sufficient to determine violation (and the error rate is very low), it would be irrefutable if the client were to exhale into a replaceable mouthpiece (while being videotaped) for an accurate reading. Such an extension is already available for the APRS.

2. A preliminary study shows that learning disabled clients can learn the system quickly, and written instructions are supplemented by cordial verbal instructions available in several languages. While it is possible that mentally retarded, visually impaired, or some types of brain injured clients may have difficulty with the system, APRS will allow for personal contact with them as necessary.

Probation Officer Use of the System

There are a number of factors that are related to the use of an electronic check-in process from the standpoint of probation officers. In order to obtain information regarding the probation officer perspective concerning the use of the CHECK-IN system, eight (8) probation officers were interviewed. The interview focused on the following: training, selection, enrollment, and case management.

Training:

The effectiveness of probation officer use of a computer based check-in system is predicated on (1) the type of hardware and software associated with the system, (2) the extent to which probation officers have at least a general understanding of the operating principles of the system, and (3) the degree of comfort the probation officers have with managing the software associated the enrollment, check-in, report generating, and word processing.

The CHECK-IN system operates on a MS-WINDOWS platform and it is therefore essential that training probation officers to use the system begins with an introduction to the use of MS-WINDOWS. While there may be probation officers who are familiar with micro-computers and associated software, it is necessary to assure that each probation officer has a minimum level of skill with MS-WINDOWS before beginning the training program focused on the use of CHECK-IN.

Once a person has the capability to open and close windows and demonstrates a level of understanding of the use of icons, a mouse, and file management, the training to use CHECK-IN takes approximately 2 hours. The training includes a video which provides a description of the system, a presentation of the reports that can be generated, a demonstration of the enrollment process, and supervised practice with the use of the system.

In addition to training the probation officers to use the CHECK-IN system, it is necessary to provide instruction related to the process of identifying and selecting cases to be assigned to the CHECK-IN process and for developing the criteria (questions) that will provide the basis for monitoring the activities of clients who are assigned to CHECK-IN.

Selection

The most important considerations for the Probation Officer concerning the use of the CHECK-IN system are those related to (1) the identification and selection of clients to be assigned to the system and (2) the criteria to be established which would provide the basis for monitoring the activities of the client using the capacity of the micro-computer based check-in process.

The APRS project was funded as a pilot project. In addition, the software which provides the structure for the CHECK-IN process was in early stages of development. The primary goal of the project was to determine the capacity for a micro-computer, biometric based system to monitor the activities of persons on probation and to provide feedback to probation officers regarding the extent to which those person enrolled on the system were meeting the conditions of their probation. In addition, the CHECK-IN software was not initially designed to manage case data such as offense, number of times previously on probation, etc. nor was there a convenient interface between the data base in check-in system and the Court Services Tracking System (CSTS) which Arrowhead Regional Corrections uses to manage client case file data. Therefore, the clients were selected to be assigned to the CHECK-IN system using two primary criteria: (1) the willingness of a Probation Officer to participate in the pilot project and (2) the judgement of the Probation Officer concerning the appropriateness of having a client meet conditions of probation which could include the use of the CHECK-IN system.

The clients were not selected in such a way that made it feasible to make comparisons between those assigned to the CHECK-IN system and those managed by "traditional" probations. In addition, the relative short time covered by the study of the Pilot Project does not allow for the development of useful conclusions regarding the relative effectiveness of the use of the system as a means of reducing recidivism.

Clients assigned by Probation Officers to the CHECK-IN system included those with either felony or misdemeanor related sentences. In addition, some clients who were on supervised release and some clients who were on parole were assigned to the CHECK-IN system. The system was also used for clients who had been accepted into a treatment program, but were waiting for an "opening" in the program.

Some Probation Officers established case records for all of their clients and enrolled some for check-in and used the related software to keep case notes and/or other features of the CHECK-IN related software. Some Probation officers did not require their clients to check-in, but encouraged them to use the system if they came for an appointment with their Probation Officer but the Probation Officer was unable to keep the appointment because they were out of the office, e.g. in court, managing a case problem that required immediate attention, etc.

The probation officers each defined monitoring criteria which were operationalized by (1) establishing a frequency of check-in for the client and (2) formulating a set of questions which represented the terms and conditions of the clients sentence to probation. (See Appendix D, Client History Report for examples of check-in questions)

A client could be required to check in daily, weekly, monthly, or as some other interval defined by the Probation Officer. The Probation Officer may establish a "grace" period for the check-in. The grace period defines the length of time, in days, PRIOR to the specified check-in date that the client may check-in. In addition, if the conditions of probation specified that the client (a) not use alcohol or drugs while on probation and (b) attend AA meetings for some specified time, the CHECK-IN system has the capacity to (1) test ambient air - breath of client - and record the clients check-in transaction on video tape at the time of check-in and (2) present questions on the CHECK-IN video screen such as: "Have you used alcohol or drugs since your last check-in?" and "How many AA meetings have you missed since your last check-in?"

Generally, the check-in questions represent the conditions of probation. While there are a number of different ways to operationalize the conditions of probation by using questions, it is apparent that there are some question formats that provide more useful feedback than others. For example, if a client has a sentence that includes restitution payments, it is more useful to ask the client "How much have you paid in restitution since your last check-in?" rather than "Have you made your restitution payment?" More attention to the format of the check-in questions is essential in order to take more complete advantage of the potential of the CHECK-IN process.

Enrollment

In order for a Probation Officer to use the software associated with the CHECK-IN system as part of managing a client's case, a "case record" must be established for the client on the system. The minimum information required to establish a record is the client's name and case number. Enrolling the client requires that, in addition to the name and case number, a biometric measurement be taken (at least two finger prints or hand geometry) and a video image made and stored in digitized form in the case record data file.

It takes approximately ten (10) minutes to enter the case information and five (5) minutes to take the biometric measurement and the video image. In addition, it takes about five (5) minutes to demonstrate the use of the CHECK-IN process to the client. It should be noted that the case information can be entered as soon as the case has been assigned to the CHECK-IN system and the actual enrollment process used to verify the case information, obtain the biometric measurements and video image, and demonstrate the use of the system

to the client.

Case Management

The management of probation cases involves three major variables: (1) information, (2) accountability, and intervention.

Information: The system has the capacity to provide information about the client. A major strength of the CHECK-IN system's information component is in the virtual immediacy of information availability. The software that generates reports produces information that provides feedback to the probation officer about the check-in activities and the responses to the check-in questions for each client and for all of the clients that the probation officer has enrolled on the system. (See Appendix D for examples of the client and case reports)

One of the features of CHECK-IN software is a "messageing" function. It is possible for Probation Officers to leave messages for specific clients or for all clients. The message would appear on the video screen at the time of check-in. In addition, it is possible for clients to leave a message for the Probation Officer. This function has been used to replace electronic "voice-mail."

Accountability: One of the concerns associated with the use of probation as a condition of a sentence is the accountability of the probationer. As case loads for probation officers have increased in size, the problem of setting conditions of probation that can practically be monitored becomes problematic. In addition, the problem of maintaining a meaningful balance between simply assuring that clients meet the conditions of probation and providing some appropriate intervention related services has been exacerbated. It is apparent that the CHECK-IN system offers the potential for assisting in managing the problem of accountability by virtue of the "immediate feedback" feature. However, it does not directly solve the "intervention" problem.

An increase level of client accountability can be achieved using the CHECK-IN system. It is virtually impossible for a probation officer with kinds of case loads found currently (from over 100 cases to over 500 cases depending upon jurisdiction and type of cases) and have clients reporting daily or even weekly and manage the rest of their responsibilities such as presentence investigations, court appearances, provide counseling or other intervention activities, etc. In addition, the processes of managing case notes, letters of notice to clients, and issuing warrants, and maintain up-to-date records on restitution, attendance at treatment programs, and/or fine payment become "bogged down" because of the dependence on others to transcribe notes, type letters or warrants, and provide information regarding client activities. The software associated with CHECK-IN and with word processors using a WINDOWS platform make it possible for probation officers to manage most of these activities directly from a desk work station consisting of a micro-computer, a printer, and hardware and software that connects the work station with the CHECK-IN server.

The CHECK-IN system provides feedback on client activities and thus facilitates the process of establishing a improved level of accountability of the client to the probation officers as part

of the case management process. In addition, the use of the CHECK-IN system makes it is possible and feasible to make connections with other data management systems in criminal justice agencies in ways that would facilitate detection of violations of conditions of probation. It is also possible connect data from the CHECK-IN system via an appropriate interface and provide notice to law enforcement agencies that a probationer is in violation of probation virtually as soon as a probation officer issues a warrant for a violation.

Intervention: Many sentences which include probation as a condition require that the probationer participates in some type of "treatment" regime. In addition, probation officers are expected to interview probationers and meet with them periodically during the time that they are on probation in order to work with the probationer in managing issues that either brought them to court in the first place or that if not managed adequately have a very high likelihood of their recidivating. The development, implementation, and monitoring of intervention strategies takes a substantial amount of time in order to be effective. The CHECK-IN system provides a resource for probation officers to use to manage case loads in ways that provides for accountability while at the same time making it feasible to develop and implement interventions that are relevant.

As noted above, probation officers have traditionally had such high case loads that they may be unable to schedule clients frequently, be behind on or overlook client information due to volume of cases, and not be able to easily collate client information from hundreds of papers in voluminous paper files. In order to be effective with clients, officers need better control over their schedules and case information so that they can use discretion regarding meeting with clients.

While the traditional system requires personal contact with every client, the APRS enables more efficient case management. In addition, a wide variety of information is available to the officer regarding the client and the probation officers cases:

Information:

- Listing of all clients on current caseload
- Current client case information
- Client history
- Client performance on conditions of probation

Case Management:

- Identification of delinquent clients
- Clients who reported with positive alcohol readings
- New enrollments and check-in activity
- Expired probation dates
- Upcoming check-in schedule
- Mailer database
  - Notice of Check-in Schedule Change
  - Official Correspondence
- Listing of client receipts.

The APRS enables an officer to obtain all the above information within seconds of the request, compared to many minutes, hours, or days using previous filing procedures. The officer is in a position to confront clients with misinformation and inconsistencies, encourage and reinforce positive behaviors, and identify early any potential problem areas before they become irretrievable problems. Such information also provides indications of trends or patterns in client behavior that enables the officer to supervise more strategically, spending time with clients who need it most.

Recommendations for further development and use:

1. The client is required to respond to officer defined questions regarding the conditions of probation, which provide officers with current indications of violation. The APRS database can be connected with the National Crime Information Center (NCIC) and Bureau of Criminal Apprehension (BCA) databases, and local on-line information (such as payment of restitution, attendance at therapysessions, etc.) resulting in extensive capacity for cross checking and confirmation of information. Such an integrated database is essential for interagency case coordination and timely intervention, and is highly recommended.

2. The current database is designed on a case by case basis and the officer can search and list cases by a particular variable (e.g., no shows, delinquent clients, etc.). APRS has the capacity to be programmed to allow calculations of total numbers or cross tabulations by different variables. Such cross tabulations would enable the officer to identify subgroups of clients, make comparisons of client groups, and better tailor supervision efforts.

3. Current PreSentence Investigation (PSI) information is separate from the APRS although it would be very easy and advisable to scan the document into the system. If corrections departments are interested in conducting further research on predictors of response to or success of probation risk codes and other information would be of use. Prediction formulas could be determined over time based on identifying which factors are related to risks or problems. Clients could then be sorted by the officer according to these probabilities which would aid in determining those requiring more frequent and direct contact.

4. The questions asked of a client during kiosk log in are very appropriate and cover a wide range of possibilities concerning performance and probation violation. During this initial stage of system development each officer can phrase them in any manner, and therefore it is not currently possible to tabulate results other than response by response. It would be helpful if officers would decide on a formal set of questions from which they could select those appropriate for their clients. This would enable tabulation and cross tabulation by questions and responses. A menu listing of questions for selection and automatic tabulation for officers can be easily programmed into the APRS. As different jurisdictions become networked, it will become important to have uniform questions and formats.

5. The Check In Frequency Loading Report lists the number of clients reporting according to various time tables (e.g., daily, every Monday of every month, etc.). The report enables officers to identify when they might expect particularly high contact periods so they might reassign clients to different days. The current format of the report could be taken in at a glance if a daily calendar format were used to show the frequencies expected. While this is not a problem for the Arrowhead Regional Corrections area, large metropolitan areas might find the calendar format of particular value in order to avoid large numbers of clients arriving during high utilization periods.

6. One of the strengths of the APRS is that it allows other probation officers access to client records so that they can also record phone calls, incidental contacts, and other relevant information on another officer's client. However, such access to files may compromise client confidentiality on such areas as psychological and medical evaluations which should be accessible only on a need to know basis. It would be desirable for the database to have protected areas, password accessible to the assigned officer and supervisor. With on-line network access, judges could also have convenient follow up on client compliance with conditions for probation. A messageing function could also be built in to the system enabling officers, supervisors, judges, police officers, treatment providers, and other users to exchange messages regarding clients. If all databases are networked (APRS, CSTS, NCIC, and BCA), it would be possible for patrol officers to immediately check possible violation status of suspects, eliminate aliases, and search for outstanding warrants.

7. The current note taking option in the program is a definite strength in the system. It allows officers to make notations while their memories are fresh, enables consistent location and immediate access to notes, and makes them legible to all readers. Over time, however, notes will increase making information somewhat difficult to locate. The APRS is flexible enough so that a text search function can be installed in the program allowing an officer to quickly conduct a key word search.

Administrative Use of the System

Traditionally, administrators have had to rely on probation officers finding the time to report their activity or client status, or wait until annual performance review to obtain sufficient data to provide feedback to the officer on performance. As noted above, problems locating information in paper files, bottlenecked schedules, and inability to compare information across officers can seriously impede effective supervision and strategic management.

This system enables more accurate and timely monitoring of officer's schedules and workloads than has been possible under the traditional supervision system. In the same way that an officer can access reports about clients, administrators and supervisors can obtain information about their officers' client loads and client performance. The current system allows administrative access to the following reports:

- All client information and reports available to the assigned officer
- Listing of all clients assigned to each officer by status and frequency
- Performance of clients assigned to each officer, including delinquencies, positive alcohol readings, and other activities.
- Check In Performance Report covering status of all areas of activity for the site.

Effective strategic management is based on patterns and trends in data, not discrete bits of information about either officers or cases. It is essential for managers to have access to tabulations and cross tabulations of all variables in the database in order to improve probation effectiveness and efficiency.

Recommendations for further development and use:

1. The database currently allows reporting in a list format for any desired variable in the database. The APRS has the capacity (not yet programmed) to also report averages (means) and distributions (standard deviations) that will help a manager determine when an officer's case load or performance is significantly above or below average for a given office. Too often, a single case draws inappropriate attention rather than the overall pattern of an officer's performance.

2. Cross tabulations of data can also be programmed into APRS without difficulty. These would enable managers to group officers and clients in various ways to determine if certain subgroups have more problems or require more attention. It would also enable cross-officer comparisons on case load, risk levels, etc., so a manager could better distribute difficult clients across officers.

3. Managers should consider using the services of researchers to help develop prediction formulas of various kinds of performance outcomes, both for officers and clients. For example, there may be certain combinations of variables that will be predictive of successful or successful participation in the reporting system, or predictors of officer burnout. Such information would enable managers to intervene earlier in such situations.

4. The Check In Frequency Loading is particularly important to managers in determining the periods during which there may be excessively high numbers of clients logging in. While an individual officer would not know that several officers have many clients scheduled to log in at a certain time, the manager would be able to quickly identify this potential problem and help officers reschedule clients to more open hours. In addition, such fluctuations in client schedules can help a manager more accurately plan for additional coverage, security, vacations, training, and other staffing requirements.

5. A recent survey of white-collar attitudes toward the "information superhighway" showed that nearly half of 600 respondents indicated that they were somewhat uncomfortable using computers (Afraid of the highway, 1995). Given the inevitability of computer networking, and exceptional advantages provided by database management such as APRS, it may be necessary to include additional computer

training for managers to use the system to capacity. This could be included as part of their annual 40 hours of continuing education. The present APRS has a very user-friendly interface that allows the user to "point and click" on any menu function. The system also allows for customizing additional menus as needed.

6. The software developed for the system currently has features that generate reports that provide the Probation Officer with a substantial amount of information regarding case activities. The next level of reporting - that which presents data aggregated across cases and/or across Probation Officers - could benefit from further development. Examples of the kinds of data and possible reporting formats are noted in Appendix .

CONCLUSIONS

The Automated Probation Reporting System (APRS) Project is based on the use of a microcomputer based check-in system that uses a Biometric method for verifying the identity of clients in the check-in process. Even though the software was being develop while the project was in process, it is apparent that the system offers much that assists probation officers in managing cases. Further, it has the potential for providing a framework to be used by an agency, department or other administrative unit in the process of managing case loads and as a basis for strategic planning. Although there are costs associated with the hardware, software, support staff, and related services, the system provides an option to incarceration. The system provides for increased accountability of clients while allowing probation officers to focus on activities other case management activities such as pre-sentence investigation, client contact, and follow-up on client reports. The software associated with the system can reduce the staff time involved in keeping track of cases and in providing information to clients. In addition, it is possible to provide an interface between data in the system and the data management formats of other criminal justice agencies in order to improve client accountability and assist personnel in those agencies with providing services that are both appropriate and timely. APRS has the potential for becoming a useful "tool" in criminal justice and social service agency case management.

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APPENDIX A

CHRONOLOGY OF APRS PILOT PROJECT ACTIVITIES

Request For Proposal	10 November 1993
Contract Awarded	
Equipment Installation	20 - 23 February 1994
System Demonstrations	20 - 25 February 1994
Staff Training	21 - 25 February 1994
System Operational	24 February 1994
First Client Enrolled	25 February 1994
First Client Check-in	25 February 1994
Changes in Hardware	
Replace Video Recorder in Kiosk	10 March 1994
Switched Ethernet Cards in data base server	20 April 1994
Continued development and modification of software	May thru 31 December 1994
Changes in Software	
See releases 1.02, 1.03. 1.04, 1.12, 1.16	

APPENDIX _B_

TABLES

ARC DATA SYSTEM

Arrowhead Regional Corrections (ARC) uses the Court Services Tracking System (CSTS) to manage the data base which contains the information related to its clients. At present the CSTS programs are not designed to provide a means for (a) effectively connecting data in CSTS with the data in the CHECK-IN system with only those cases that have been assigned to the APRS System or (b) developing sub-files which contain only those cases assigned to APRS. Therefore, analysis of data across cases and between cases assigned to APRS and those not assigned to APRS is at the time of this report exceedingly tedious and difficult. The following table presents a summary of the types of cases (by offense) that have been assigned to APRS:

TABLE 1 Distribution of Offenses for APRS Cases[3]

TYPE OF OFFENSE	#	%
Assault	39	19
Threats, Aggravated Robbery, VOP, Harassment, Obstructing legal process, Contempt, Trespassing, Disorderly Conduct	25	12
Burglary	14	7
Chemicals/Drugs	20	10
Theft - Conspiracy, Receive property, Possessing Stolen Property, Motor Vehicle	50	25
Fraud, Forgery, Bookmaking	13	6
Fleeing Police, False name to police	8	4
Driving While Intoxicated	9	4
Driving After Revocation	3	1
Criminal Damage to Property	9	4
Criminal Sexual Conduct	3	1
Criminal use of Vehicle - Bodily Harm	3	1
Child Endangerment	2	1
	229	100%

[3] As of 6-20-94 (End of project year data are expected to be available by 1 February 1995.)
Note: 35 of the 229 cases have conditions of probation that are expected by be met by 31 December 1994.

TABLE 2 Number of clients using Kiosk for Check-In by time of day and day of week for a one month period.

WEEK 1 (3 October thru 7 October 1994)

TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL
0800-0959	3	2	1	4	6	16
1000-1159	3	3	3	1	6	16
1200-1359	6	8	9	3	11	37
1400-1630	5	4	5	3	4	21
TOTAL	17	17	18	11	27	90

WEEK 2 (11 October thru 14 October 1994)

TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL
0800-0959	2	3	2	6	X	13
1000-1159	3	2	2	5	X	12
1200-1359	10	7	3	4	X	24
1400-1630	5	3	1	9	X	18
TOTAL	20	15	8	24	X	67

WEEK 3 (17 October thru 21 October 1994

TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL
0800-0959	1	1	1	1	0	4
1000-1159	0	4	4	2	3	13
1200-1359	5	7	7	5	6	30
1400-1630	2	3	9	6	14	34
TOTAL	8	15	21	14	23	81

WEEK 4 (24 October thru 28 October 1994)

TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL
0800-0959	2	1	3	5	0	11
1000-1159	1	2	4	9	5	21
1200-1359	4	3	2	4	4	17
1400-1630	7	6	4	5	5	27
TOTAL	14	12	13	23	14	76

TABLE 3 Number of cases by expected check-in frequencies by day of week or check-in.

	EVERY	FIRST	SECOND	THIRD	FOURTH	TOTAL
DAILY	9					9
MONDAY	10 (+9)	2		3		15 (+9)
TUESDAY	7 (+9)	1	1	1		10 (+9)
WEDNESDAY	11 (+9)	**(2)** **{4}**	32 **[3]**	{4a}	(2a) [3 a]	52 (+9)
THURSDAY	8 (+9)			1		9 (+9)
FRIDAY	45 (+9)	22 **(2)**	33	30 (2a)	29	161 (+9)
TOTAL	90	33	69	35	29	256
OTHER	25					25
NOT REQUIRED	194					194
TOTAL	**309**	**33**	**69**	**35**	**29**	**475**

TABLE 4 Length of time on probation by REQUIRED CHECK-IN schedule. [4]

LENGTH OF PROBATION — REQUIRED CHECK-IN SCHEDULE

NUMBER OF MONTHS	DAILY	2 or MORE PER WEEK	WEEKLY	2 or 3 Weeks per Month	MONTHLY	Longer than a Month
less than 12						
12 - 23						
24 - 35						
36 - 47						
48 or more						

[4] Data to complete Tables 4 thru 6 are unavailable. It is suggested that software be developed to provide report formats to produce these tables.

TABLE _5_ Length of time on remaining on probation by REQUIRED CHECK-IN schedule. [4]

LENGTH OF TIME OF PROBATION REMAINING — REQUIRED CHECK-IN SCHEDULE

NUMBER OF MONTHS	DAILY	2 or MORE PER WEEK	WEEKLY	2 or 3 Weeks per Month	MONTHLY	Longer than a Month
less than 12						
12 - 23						
24 - 35						
36 - 47						
48 or more						

TABLE _6_ Number of clients missing check-in by REQUIRED CHECK-IN schedule [4]

	DAILY	2 OR MORE PER WEEK	WEEKLY	BI-MONTHLY	MONTHLY
NUMBER OF CLIENTS					

[4] Data to complete Tables 4 thru 6 are unavailable. It is suggested that software be developed to provide report formats to produce these tables.

TABLE 7 Number of Clients CHANGING ADDRESS BY NUMBER OF ADDRESS CHANGES

NUMBER OF ADDRESS CHANGES	NUMBER OF CLIENTS
ONE	78
TWO	16
THREE	6
FOUR	6
FIVE	5
SIX	0
SEVEN	2
	113

TABLE 8 Number of Clients CHANGING EMPLOYMENT BY NUMBER OF EMPLOYMENT CHANGES

NUMBER OF EMPLOYMENT CHANGES	NUMBER OF CLIENTS
ONE	51
TWO	23
THREE	5
FOUR	5
FIVE	2
	86

TABLE 9 Check-in summary (25 February 1994 thru 31 December 1994)

Total NUMBER OF CHECK-INS	3008
Total NUMBER OF CHECK-IN ATTEMPTS	3440
Number of FALSE NEGATIVES AT CHECK-IN (failed due to Biometric ID)	244
Total NUMBER OF CASES	475
Total NUMBER OF CASES ENROLLED but CHECK-IN NOT REQUIRED	194
Number of check-ins with "wrong" answers to check-in questions (e.g. answered "NO" to "Have you made your restitution payment?") [5]	- - -
Average length of time it takes to complete CHECK-IN	2.75 Minutes

****

TABLE 10 Number of Check-ins remaining for present calendar year and next calendar year. [6]

Number of Check-ins remaining for present calendar year	_____
Number of Check-ins projected for next calendar year	_____

[5] Data were not available in report format.

[6] Data were not available for Table 10 and 11. It is suggested that software be developed to produce these tables as reports.

TABLE 11 Daily case activity. [6]

ACTIVITY	DATE: (yesterday)	DATE: (today)
NUMBER OF CASES ENROLLED		
NUMBER OF CHECK-INS		
NUMBER OF CASES CLOSED		
NUMBER OF CASES OPENED		
NUMBER OF WARNINGS WRITTEN [7]		
NUMBER OF WARRANTS ISSUED [7]		
NUMBER OF CHECK-INS WITH FALSE NEGATIVES [8]		

[6] Data were not available for Table 10 and 11. It is suggested that software be developed to produce these tables as reports.

[7] Warnings and warrants are not issued by the CHECK-IN system, but may be generated by associated software.

[8] False negatives may be due to (a) incorrectly entering social security number, (b) biometric measurement, or (c) finger print reading surface required cleaning.

APPENDIX C

INTERVIEW FORMS

1-23-95
CCJS/UMD

PROBATION OFFICER INTERVIEW FORM

PROBATION OFFICER:_____ DATE:_____

INTERVIEWER:_____ DATE BEGAN USING APRS:_____

TOTAL NUMBER OF CLIENTS:_____ NUMBER OF CLIENTS LOGGED ON APRS:_____

NUMBER INACTIVE ON APRS:_____ NUMBER CHECKING IN ON APRS:_____

TRAINING TO USE APRS:
- PROBLEMS:
- POSITIVE FEATURES:
- SUGGESTIONS:

TIME IS TAKES TO REGISTER CLIENTS:
- PROBLEMS:
- POSITIVE FEATURES:
- SUGGESTIONS:

FACTORS CONSIDERED WHEN DECIDING **(1)** WHETHER OR NOT TO USE APRS FOR A CLIENT AND **(2)** THE FREQUENCY OF CHECK-IN:

1. 2.
3. 4.
5. 6.

FACTORS CONSIDERED WHEN FORMULATING **(1)** CHECK-IN QUESTIONS AND **(2)** CONDITIONS:

1. 2.
3. 4.
5. 6

HOW DO YOU USE:
- DESK STATION:
- APRS/CSTS:
- APRS REPORTS: (WHICH ONES? WHAT FOR?)

1._____
2._____
3._____
4._____

WHAT DO CLIENTS TELL YOU ABOUT THEIR EXPERIENCES WITH APRS?
- PROBLEMS/SATISFACTION WITH CHECK-IN TECHNOLOGY:
- PROBLEMS/SATISFACTION WITH APRS AS A CONDITION OF PROBATION:

WHAT DO JUDGES/OTHERS TELL YOU ABOUT APRS?

WHAT DIFFERENCE HAS APRS MADE IN THE WAY YOU MANAGE YOUR CASE LOAD?

WHAT COULD BE DONE TO MAKE THE SYSTEM WORK BETTER
- FOR YOU?
- FOR YOUR CLIENTS?

1-23-95
CCJS/UMD

CLIENT INTERVIEW FORM

INTERVIEW NUMBER :_____ DATE:_____

INTERVIEWER:_____

BEEN ON PROBATION BEFORE THIS? **NO** **YES** # TIMES AS A JUVENILE _____

TIMES AS AN ADULT _____

DATE BEGAN CHECKING-IN ON THE APRS CHECK-IN SYSTEM :_____/_____/_____

WHAT IS YOUR SCHEDULE FOR CHECKING IN ON THE APRS CHECK-IN SYSTEM (e.g. once a week, second friday, etc.) _____

TOTAL NUMBER OF TIMES YOU HAVE CHECKED IN ON THE APRS SYSTEM :_____

NUMBER OF TIMES MET WITH PROBATION OFFICER SINCE FIRST CHECK-IN :_____

****

TELL ME ABOUT THE PROCESS OF GETTING YOUR CASE INFORMATION ON THE COMPUTER WHEN YOU WERE FIRST ENROLLED IN THE APRS CHECK-IN SYSTEM.
PROBLEMS:
POSITIVE FEATURES:
SUGGESTIONS:

TELL ME ABOUT THE TRAINING YOU WERE GIVEN TO USE THE APRS CHECK-IN SYSTEM.
PROBLEMS:
POSITIVE FEATURES:
SUGGESTIONS:

HOW HAS THE USE OF THE APRS CHECK-IN SYSTEM AFFECTED YOU?
PROBLEMS:
POSITIVE FEATURES:
SUGGESTIONS:

HOW HAS THE USE OF THE APRS CHECK-IN SYSTEM AFFECTED OTHERS YOU USUALLY INTERACT WITH?
PROBLEMS:
POSITIVE FEATURES:
SUGGESTIONS:

IF BEEN ON PROBATION BEFORE:
WHAT DIFFERENCE HAS USING THE APRS CHECK-IN SYSTEM MADE IN THE WAY YOU HAVE BEEN AFFECTED BY THE CONDITIONS OF YOUR PROBATION COMPARED WITH BEING ON PROBATION BEFORE?

WHAT DO YOU THINK ABOUT THE USE OF THE APRS CHECK-IN SYSTEM AS A CONDITION OF YOUR PROBATION?
PROBLEMS/SATISFACTION WITH CHECK-IN TECHNOLOGY:
PROBLEMS/SATISFACTION WITH APRS AS A CONDITION OF PROBATION:

WHAT COULD BE DONE TO MAKE THE APRS CHECK-IN SYSTEM WORK BETTER FOR YOU?

ARE THERE OTHER THINGS YOU WOULD LIKE TO TELL ME ABOUT THE APRS CHECK-IN SYSTEM?

APPENDIX D

SAMPLE REPORTS

From the CheckIn
Probation Reporting System

Reports for Officer

* All Clients (Caseload)
* Client Detail
* Client History
* Client Performance
* Delinquent Clients
* Positive Alcohol Readings
* New CheckIn Activity
* Expired Probation Dates
* Upcoming Check-in Schedule
* Mailer
* Client Receipt
* Official Correspondence (e.g. Warning Notice)
* Client Notes

Reports for Supervisors

* All Officers' Caseloads
* Frequency Loading
* CheckIn Performance

SAMPLE

All names and ID numbers are fictional.

Printed On: 8/31/94

Clients Assigned to John Doe

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Abrahamski, Darren Allen	473-68-0000	7/2/93	7/2/95	8/26/94	3	Every Friday of every month.
Albertson, Richard John	274-46-0000	5/31/94	5/30/99	8/26/94	0	Every Friday of every month.
Amundsen, Donovan David	477-29-0000	3/1/94	5/31/97	8/25/94	3	Every Friday of every month.
Bartkowski, Darrick Charles	380-08-0000	11/23/93	11/22/98	8/30/94	3	Every Friday of every month.
Benkelmann, Lisa Ann	478-29-0000	11/22/93	11/21/95	8/4/94	0	Every Friday of every month.
Bennette, Lora Mary	471-69-0000	2/2/93	2/1/95	8/5/94	3	The 2nd Wednesday of every month.
Bergland, John Scott	473-51-0000	6/13/94	6/12/97	8/26/94	3	Every Friday of every month.
Bernard, William Richard	469-47-0000	3/22/93	3/21/95	8/23/94	3	Every Friday of every month.
Borland, Deanna Marsha	396-67-0000	11/4/93	1/31/97	8/17/94	0	Every Friday of every month.
Bowman, Martha Ann	332-46-0000	3/31/92	3/30/95	7/27/94	0	The 27th of every month.
Boyer, Roy Robert	475-09-0000	9/20/93	5/4/97	8/16/94	0	The 27th of every month.
Burtelson, Matthew Joseph	477-86-0000	11/12/93	11/11/95	7/22/94	0	Every Friday of every month.
Bushnell, Jarrod Louis	474-68-0000	11/23/93	11/22/98	8/19/94	3	Every Friday of every month.
Canton, James Bell	478-20-0000	3/8/93	3/7/96	7/28/94	3	The 2nd Wednesday of every month .
Carlson, Ronald Joshua	475-51-0000	10/8/93	10/7/96	8/26/94	3	Every Friday of every month.
Chavez, Lawrence William	522-91-0000	3/25/94	3/24/97	8/18/94	3	Every Friday of every month.
Crosby, David Ronald	327-46-0000	8/17/94	8/16/97	8/26/94	3	Every Friday of every month.
Crowell, William George	469-69-0000	9/13/91	9/12/96	8/22/94	3	The 2nd Wednesday of every month.
Cumington, Lance Jerome	477-67-0000	7/22/94	7/21/96	8/26/94	3	Every Friday of every month.
Daingle, Theodore Robert	475-64-0000	4/30/93	4/29/98	8/17/94	3	The 2nd Wednesday of every month.
Dalling, Paul Arthur	460-86-0000	6/14/90	6/13/95	8/15/94	3	The 2nd Wednesday of every month.
Ferrarro, Christine Adam	475-65-0000	4/14/94	4/13/96	8/19/94	5	The 4th Wednesday of every month.
Frederickson, Mary Ellen	460-84-0000	9/9/93	9/8/96	8/24/94	3	Every Friday of every month.
Grace, Betty Sue	474-27-0000	9/24/90	9/23/94	8/8/94	0	Not required.
Hanson, Donald David	474-46-0000	4/26/93	4/25/96	8/30/94	3	Every Friday of every month.
Hays, Ralph Thomas	474-67-0000	9/4/92	9/3/95		0	Not required.
Hieman, Lincoln Robert	427-52-0000	1/4/93	1/3/98	8/5/94	3	The 2nd Wednesday of every month.
Holmstadt, Timothy Ray	388-09-0000	3/25/93	3/24/96	8/26/94	0	The 27th of every month.
Holoman, Jeffrey Chris	469-68-0000	1/16/92	1/15/97	8/19/94	3	The 2nd Wednesday of every month.
Johnsen, Frederick Robert	398-68-0000	2/3/94	2/2/96	5/31/94	0	Not required.
Johnston, Terrence Allen	473-40-0000	4/11/94	4/10/97	8/9/94	3	Every Friday of every month.
Jyrington, Billie Louise	473-29-0000	4/19/93	4/18/96	7/28/94	3	The 2nd Wednesday of every month.
Larsen, Sally Barbara	469-48-0000	3/20/90	3/19/95	7/19/94	0	Not required.
Larson, Sidney Morgan	460-48-0000	6/23/92	6/22/99		0	Not required.
Lewisberg, Allen Marvin	397-48-0000	1/11/94	1/10/97	8/26/97	0	Every Friday of every month.
Lindelof, Janice Mary	473-05-0000	12/27/91	12/26/94	7/29/94	3	The 27th of every month.
Link, Michael Robert	525-32-0000	8/17/94	8/16/99	8/26/94	3	Every Friday of every month.
Lippson, Joseph Randall	391-28-0000	3/15/94	3/14/97	8/29/94	3	The 2nd Wednesday of every month.
Love, Matthew John	523-28-0000	3/15/93	3/14/95	5/6/94	0	Not required.
Luncington, James Kevin	469-87-0000	4/19/93	4/18/96	8/5/94	0	The 27th of every month.
Lund, Elsa Louise	473-58-0000	2/21/91	2/20/96	8/24/94	0	Every Friday of every month.
Martin, George Jackson	399-64-0000	6/2/93	6/1/96	8/1/94	3	The 2nd Wednesday of every month.
McColski, Richard Charles	472-68-0000	12/15/93	12/14/95	8/29/94	3	Every Friday of every month.
McDonald, McArthur Scott	477-05-0000	6/6/94	6/5/99	8/23/94	3	Every Friday of every month.
McNaughton, Leslie Marie	611-04-0000	6/6/94	6/5/96	8/26/94	0	Every Friday of every month.
Messenger, Michael George	399-25-0000	8/29/91	8/28/96	8/29/94	3	The 2nd Wednesday of every month.
Mirtsinovich, Andrew Joseph	474-48-0000	12/23/92	12/22/95	3/15/94	0	Not required.
Mouldenowski, Arthur Jerrold	486-45-0000	9/4/90	9/3/95	8/26/94	3	The 27th of every month.
Nash, Robert Myron	340-25-0000	12/9/92	12/8/95	5/9/94	0	Not required.

SAMPLE

All names and personal information are fictional.

Printed on: 8/30/94

Clients assigned to **John Doe**

Abrahamski, Darren Allen

ID: 473-68-0000 **Sex:** M **Birthday:** 8/4/60
Address: 5620 E. 8th St, Duluth, MN, 55807
Phone: (218)425-0000
Employment: none
Supervisor: **Phone:**
Start: 7/ 2/93 **End:** 7/ 1/95 **Grace:** 3
Notes: T5-91-516282 Assault
Frequency: Every Friday of every month.

Benkelmann, Lisa Ann

ID: 478-29-0000 **Sex:** F **Birthday:** 6/20/66
Address: 95 N. 63rd Ave. E., Duluth, MN, 55807
Phone: (218)428-0000
Employment: Speedy Convenience Store
Supervisor: John Johnson **Phone:** (218)700-0000
Start: 11/22/93 **End:** 11/21/95 **Grace:** 0
Notes: P1-29-808808 5th Degree Possession of Marijuana
Frequency: Every Friday of every month.

SAMPLE

All names are fictional.

Printed on 8/30/94

CLIENT HISTORY REPORT

Officer Name: John Doe
Abrahamski, Darren Allen

Date: 3/15/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: YES
Question: Are you doing your Community Service Work?
Response:
Question: Have you consumed alcohol or used any illegal drugs since your last visit?
Response: NO

Date: 3/24/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: YES
Question: Are you doing your Community Service Work
Response:
Question: Have you consumed alcohol or used any illegal drugs since your last visit?
Response: NO

Date: 4/8/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: YES
Question: Are you doing your Community Service Work?
Response:
Question: Have you consumed alcohol or used any illegal drugs since your last visit?
Response: NO

Date: 4/15/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: YES

SAMPLE

All names and ID numbers are fictional.

 Printed On 9/26/94

Performance of Clients Assigned To John Doe

Amorold, Daniel David ID: 376-92-0000 Probation Start: 3/1/94 End: 5/31/97

2 NO SHOW						
		xpected:	7/ 1/94		Grace: 5	Every Friday of every month.
		xpected:	7/ 8/94		Grace: 5	Every Friday of every month.
1 Successful - Wrong date						
Actual:	7/27/94	xpected:	8/ 5/94		Grace: 5	Every Friday of every month.
14 Successful						
Actual:	6/ 1/94	xpected:	6/ 3/94		Grace: 5	Every Friday of every month.
Actual:	6/ 7/94	xpected:	6/10/94		Grace: 5	Every Friday of every month.
Actual:	6/16/94	xpected:	6/17/94		Grace: 5	Every Friday of every month.
Actual:	6/23/94	xpected:	6/24/94		Grace: 5	Every Friday of every month.
Actual:	7/11/94	xpected:	7/15/94		Grace: 5	Every Friday of every month.
Actual:	7/18/94	xpected:	7/22/94		Grace: 5	Every Friday of every month.
Actual:	8/ 3/94	xpected:	8/ 5/94	POSITIVE ALCOHOL	Grace: 5	Every Friday of every month.
Actual:	8/11/94	xpected:	8/12/94		Grace: 5	Every Friday of every month.
Actual:	8/19/94	xpected:	8/19/94		Grace: 5	Every Friday of every month.
Actual:	8/25/94	xpected:	8/26/94		Grace: 5	Every Friday of every month.
Actual:	9/ 2/94	xpected:	9/ 2/94		Grace: 5	Every Friday of every month.
Actual:	9/ 9/94	xpected:	9/ 9/94		Grace: 5	Every Friday of every month.
Actual:	9/16/94	xpected:	9/16/94		Grace: 5	Every Friday of every month.
Actual:	9/21/94	xpected:	9/23/94		Grace: 5	Every Friday of every month.
1 Bad biometric ID						
Actual:	8/19/94	xpected:	9/19/94		Grace: 5	Every Friday of every month.
18 TOTAL						
	1	clients listed.				

SAMPLE

All names are fictional.

Printed On 8/30/94

Delinquent Clients Assigned To John Doe

Name	Probation Start	Probation End	Checkin Last	Checkin Expected	Grace Days	Days Late	Frequency
Alkan, Robert Charles	5/31/94	5/30/99	8/19/94	8/26/94	0	4	Every Friday of every month.
Bennetson, Laura Ann	11/22/93	11/21/95	8/4/94	8/5/94	0	25	Every Friday of every month.
Bonnetski, Ellen Mary	2/2/93	2/1/95	8/5/94	8/10/94	3	20	The 2nd Wednesday of every month.
Bortender, Dennis Matthew	11/4/93	1/31/97	8/17/94	8/19/94	0	11	Every Friday of every month.
Burber, Mark James	11/12/93	11/11/95	7/22/94	8/5/94	0	25	Every Friday of every month.
Bushie, Jarrod Lee	11/23/93	11/22/98	8/19/94	8/26/94	3	4	Every Friday of every month.
Carnison, James Bryan	3/8/93	3/7/96	7/28/94	8/10/94	3	20	The 2nd Wednesday of every month.
Chavez, Lance Joseph	3/25/94	3/24/97	8/18/94	8/26/94	3	4	Every Friday of every month.
Hieter, Roberta Laura	1/4/93	1/3/98	8/5/94	8/10/94	3	20	The 2nd Wednesday of every month.
Johnston, Phillip George	4/11/94	4/10/97	8/9/94	8/19/94	3	11	Every Friday of every month.
Jyringlund, Brent Lawrence	4/19/93	4/18/96	7/28/94	8/10/94	3	20	The 2nd Wednesday of every month.
Lincoln, Mary Elizabeth	12/27/91	12/26/94	7/29/94	8/27/94	3	3	The 27th of every month.
Lundgren, Lawrence William	2/21/91	2/20/96	8/24/94	8/26/94	0	4	Every Friday of every month.
Martin, Jared Lewis	6/2/93	6/1/96	8/1/94	8/10/94	3	20	The 2nd Wdnesday of every month.
Olson, Myrna Joan	9/23/92	9/23/95	8/15/94	8/19/94	3	11	Every Friday of every month.
Raykind, Steven Robert	4/18/94	4/17/96	8/16/94	8/26/94	3	4	Every Friday of every month.
Shawn, Arthur Marvin	6/1/93	5/31/96	8/24/94	8/26/94	0	4	Every Friday of every month.
Sholdgren, Christian John	2/28/91	2/27/95	8/19/94	8/26/94	3	4	Every Friday of every month.

SAMPLE

All names and ID numbers are fictional.

Printed On 8/30/94

POSITIVE ALCOHOL READINGS FROM 01/01/94 TO 08/30/94

NOTE: Alcohol readings should not be interpreted as an accurate indicator of levels of intoxication.

Officer Name: John Doe	ID	Date	Time	Alcohol
Anundson, Donald Evan	477-29-0000	08/03/1994	08:12:42	0.002
Nashtown, Marvin Joseph	350-25-0000	04/01/1994	14:42:53	0.001
Samson, Shandra Eileen	478-49-0000	04/07/1994	14:17:44	0.001
Shawberg, Billie Aaron	472-68-0000	06/13/1994	11:34:23	0.002

SAMPLE

All names are fictional.

Printed on 8/30/94

NEW CHECKIN ACTIVITY

Officer Name: John Doe
Abrahamski, Darren Allen

Date: 8/26/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: NO
Question: Are you doing your Community Service Work?
Response:
Question: Have you consumed alcohol or used any illegal drugs since your last visit?
Response: NO

Date: 8/29/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you been going to domestic abuse classes?
Response: NO
Question: Are you doing your Community Service Work?
Response:
Question: Have you consumed alcohol or used any illegal drugs since your last visit?
Response: NO

Amundson, Darwin Joseph

Date: 8/25/94	Status: Completed	Location: North Area Corrections	Alcohol: 0.000

Question: Have you been arrested since your last checkin?
Response: NO
Question: Have you paid this month's restitution?
Response: NO
Question: Are you doing your Community Service Work?
Response: 23
Question: How many days of STS are done?
Response: 26

SAMPLE

All names and ID numbers are fictional.

Printed On: 8/31/94

Clients With Expired Probation Dates

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Bentley, Jackson Joseph	392-56-0000	8/5/92	8/4/94	8/2/94	5	First and third Tuesdays of each month.
Harmon, Mary Louise	489-12-0000	8/16/91	8/15/94	8/12/94	5	Every Friday of every month.
Johanson, William John	422-98-0000	9/1/93	8/31/94	8/30/94	0	Every Wednesday of every month.
Norris, Joan Susan	376-13-0000	8/10/92	8/09/94	8/5/94	3	Every Friday of every month.
Williamson, Robert Maurice	434-56-0000	8/21/91	8/22/94	8/22/94	0	Every Monday of every month.

SAMPLE

All names and ID numbers are fictional.

Printed On 8/30/94

Upcoming Client Schedule for John Doe

Note: This report does not include delinquent clients.

Tuesday, 8/30/94	ID	Last	Grace
Troika, Scott Arvid	474-68-0000	8/29/94	0

Friday, 9/2/94	ID	Last	Grace
Alahamski, Donald David	473-68-0000	8/29/94	3
Amtell, Donovan Morris	477-29-0000	8/25/94	3
Bernheart, Roger Wilson	469-47-0000	8/23/94	3
Carter, Craig Walter	475-51-0000	8/26/94	3
Crosby, Diana Renee	527-46-0000	8/26/94	3
Curfound, Jerry George	477-67-0000	8/26/94	0
Lewis, Jesse Mark	397-48-0000	8/26/94	5
Linkowski, Edward Nelson	525-32-0000	8/26/94	3
McCollum, Matthew Mark	472-68-0000	8/29/94	3
McDonald, James Earl	477-05-0000	8/23/94	0
McNaughton, Nancy Jo	311-04-0000	8/26/94	5
Olson, Shena Eloise	474-66-0000	8/25/94	0
Sturgent, Lawrence Walter	475-49-0000	8/23/94	0
Steinbaugh, Leslie Ralph	506-77-0000	8/25/94	5
Thiltson, James Frederick	474-46-0000	8/29/94	5
Williamson, John Jacob	325-46-0000	8/25/94	0

Wednesday, 9/7/94	ID	Last	Grace
Ferrarro, Constance Ellen	475-65-0000	8/19/94	5

Friday, 9/9/94	ID	Last	Grace
Barnland, David Rick	390-08-0000	8/30/94	3
Hanson, Susan Joan	474-55-0000	8/30/94	5
Stevenson, Allen Arthur	476-31-0000	8/30/94	0

Wednesday, 9/14/94	ID	Last	Grace
Crowell, Walter Allen	469-69-0000	8/22/94	3
Daingler, Robert Bryan	475-33-0000	8/17/94	5
Dallwood, Paul George	470-99-0000	8/15/94	0
Holmund, Jackie Lynn	469-77-0000	8/19/94	3
Lippincott, John Robert	391-28-0000	8/29/94	0
Meininger, Paula Gertrude	399-25-0000	8/29/94	0
Sailman, Raylynn June	470-87-0000	8/26/94	5
Schuemann, Richard Carl	471-27-0000	8/16/94	5

Arrowhead Regional Corrections
100 N. 5th Ave West, Room 319 Courthouse
Duluth
MN 55802

Place Stamp Here

TO: **Michael G. Tate**
123 MANGO BLVD
HAPPY TOWN
MN
55803

FOLD HERE

NOTICE OF CHECK IN SCHEDULE CHANGE

FOLD HERE

Your probation officer has established a new schedule for you to check in.
You are now required to report

Daily.

Your probation officer is **zzDemo**
His / her phone number is (218)726-2600

If you experience any problems using the system, contact your probation officer immediately.

Probation Check-In Verification
St. Louis County, MN

Probationer's Name:
Michael G. Tate

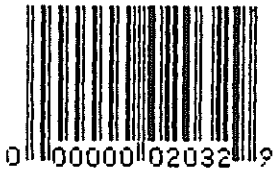
Social Security Number :
123-45-6789

Time: 04:23:04PM
Date: 08/30/94

Probation Officer:
zzDemo

Officer Phone:
(218)726-2600

Please keep this verification slip for future reference. It shows that you reported at the date and time shown above. If you have any questions or problems, please call your assigned Probation Officer at the number provided above.



Michael Tate
Arrowhead Regional Corrections
100 N. 5th Ave West, Room 319 Courthouse
Duluth, MN 55802

rwarding and Address Correction Requested

TO: Deanna Marie [redacted]
Duluth, MN 55802

FOLD HERE

OFFICIAL CORRESPONDANCE - DO NOT DISCARD

FOLD HERE

You have failed to report as directed. Please report immediately and see me in person before you leave.

Printed 12/16/94

CLIENT NOTES

Clients Name: [redacted]eanna [redacted]

11/16/94, Michael Tate, Late Reporting letter.

12-6-94 Court for Viol. Found not in Violation. CSW requirement removed.

12/09/94, Michael Tate, Late Reporting letter.

12-15-94 OV - left reporting slip. Says she will be in tomorrow.

SAMPLE

All names and ID numbers are fictional.

 Printed On 8/30/94

Clients Assigned To Jane Doe

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Chilson,Timothy David	470-28-0000	6/21/94	11/18/95	7/8/94	3	Every Monday of every month.
Downstead, Boris Joseph	473-48-0000	3/15/93	3/14//95	6/6/94	5	The 2nd Wednesday of every month.

(list of clients continues)

31 clients listed.

Clients Assigned To John Doe

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Alexson,Torrence James	571-07-0000	4/25/91	4/24/96	8/23/94	3	Every Friday of every month.
Bakersfield, Julie Kaye	477-66-0000	7/15/93	7/14/97	8/26/94	5	The 2nd Wednesday of every month.

(list of clients continues)

47 clients listed.

Clients Assigned To Bob Jones

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Arnoldson, Jackson Julius	571-76-0000	9/12/90	9/11/97	8/8/94	3	Every Tuesday of every month.
Dinkleman, Robert George	373-64-0000	8/14/93	8/15/95	8/3/94	5	The 1st Thursday of every month.

(list of clients continues)

76 clients listed.

Clients Assigned To Mike Michaels

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Brown, Charles John	387-67-0000	9/25/91	9/24/96	8/20/94	3	Every Friday of every month.
Erlie, Georgia Ruth	577-99-0000	2/15/93	2/14/97	8/15/94	5	The 1st Friday of every month.

(list of clients continues)

57 clients listed.

Clients Assigned To Marv Smith

Name	ID	Probation Start	Probation End	Last Checkin	Grace	Frequency
Billings, Marvin Lee	481-33-0000	1/20/92	1/19/96	8/28/94	3	Every Monday of every month.
David, George Robert	333-22-0000	6/10/90	6/9/95	8/24/94	5	The 1st Friday of every month.

(list of clients continues)

62 clients listed.

Printed On 1/ 4/95

CHECK IN FREQUENCY LOADING

Not Required

194 Not Required.

194 Not Required

Daily

9 Daily.

9 Daily

Day of Week

10 Every Monday of every month.
2 The 1st Monday of every month.
2 The 3rd Monday of every month.
6 Every Tuesday of every month.
1 The 1st Tuesday of every month.
1 The 2nd Tuesday of every month.
1 The 3rd Tuesday of every month.
11 Every Wednesday of every month.
32 The 2nd Wednesday of every month.
3 The 1st, 3rd Wednesday of every month.
2 The 1st, 4th Wednesday of every month.
3 The 2nd, 4th Wednesday of every month.
8 Every Thursday of every month.
1 The 1st, 3rd Thursday of every month.
1 Every Tuesday, Thursday of every month.
46 Every Friday of every month.
21 The 1st Friday of every month.
33 The 2nd Friday of every month.
30 The 3rd Friday of every month.
2 The 1st, 3rd Friday of every month.
28 The 4th Friday of every month.
1 The 2nd Friday of January, February, April, May, July, August, October, November.
1 The 1st Friday of January, March, April, June, December.
1 The 4th Friday of February, April, June, August, October, December.

247 Day of Week

Monthly

1 The 1st of every month.
2 The 3rd of every month.
1 The 7th of every month.
1 The 15th of every month.
1 The 24th of every month.
2 The 25th of every month.
13 The 27th of every month.
1 The 31st of December.

22 Monthly

Specific Date

1 On 01/13/95.

CHECK IN FREQUENCY LOADING

1 On 12/25/96.
2 **Specific Date**

474 Total Check In Assignements **472 Total Clients**

 Printed On 1/ 4/95

CHECK IN PERFORMANCE REPORT

System Name: **St. Louis County, MN**

All times given in minutes

Site: **Arrowhead Regional Corrections**

Result	Number	Average	Minimum	Maximum	Total Time
Successful Check In	3,008	2.75	0.00	20.37	8,278.92
Successful - No Receipt	2	4.73	3.07	6.38	9.45
Failed due to Time out	34	3.08	0.47	8.22	104.63
Failed due to Biometric ID	244	2.13	0.58	7.67	520.72
User Quit	121	2.18	0.57	4.57	263.68
Substitute	31	0.00	0.00	0.00	0.00
Total	3,440				9,177.40