48305

TOWARDS AN ADVANCED CRIMINAL JUSTICE INFORMATION SYSTEM

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On September 1, 1971, New York State's new Criminal Procedure Law (CPL) became effective. The passage of the new CPL confronted the New York State Identification and Intelligence System (NYSIIS) with two formidable problems: the ability to handle a greatly increased workload and the capability of responding to high priority inquiries within a definite time constraint. The first problem was a result of the fact that the CPL stipulated that *all* misdemeanors arrests, as well as felonies, required the submission of fingerprints. The second problem arose from the CPL requirement that an accused could not be arraigned on a serious offense until a statewidc criminal history report was supplied.

Two significant advances have enabled NYSIIS to meet this challenge; the installation of an advanced computer system and the implementation of an improved processing system called SYSTEM '71. This paper describes the background, systems design considerations, inter-action with the computer system and manual flow of fingerprint documents through the new processing system, SYSTEM '71.

BACKGROUND

The New York State Identification and Intelligence System was created by statute in 1965 as an agency within the Executive Department. The mission of the new agency was to develop a computerized information sharing system to serve the needs of the criminal justice agencies throughout New York State.

The first major undertaking in the development of the NYSIIS Automated Criminal Justice System was the design and implementation of the computerized criminal history system.

The development of this system was accomplished in three steps. These steps were:

1. Historic Data Conversion – Selection and conversion of historic records for inclusion in the initial criminal history data base. (Begun in 1966. Terminated in 1971).
2. Automated Fingerprint Search – Computerization of the searching of fingerprints in support of the identification process. (Operational in July, 1968).
3. Computer-produced Criminal Histories – The retrieval, updating and printing of criminal histories by computer. (Operational in January 1969).

Once an initial data base of historic records had been established and the Criminal History Retrieval System was functional, the fingerprint processing system was revised to incorporate the computer production of criminal histories. A brief description of that system is as follows:

1. All identification functions were performed first.
   a. Manual name searching and verification
   b. Classification, fingerprint searching (aided by the computer) and verification
2. After the identification function was completed, a determination of the type of response (computer or manual) was made.
   a. Manual Response – Jacket was drawn, edited and response prepared by typists.
   b. Computer Response – Fingerprint card was edited and coded, punched cards produced and entered into the computer, by batch, to produce the criminal history.

The identification process, (1) above, is by far the most difficult and time consuming of the operations performed. Prints to be responded to by computer were received, for preparation for entry into the computer system, in relatively large batches. This was the first point where processing backlogs built up.

Punched cards were then produced and batched by priority for entry into the computer system. This again produced a possible backlog situation.

It soon became clearly evident that a major redesign effort was necessary in order to improve the criminal history response time to the user agencies.

SYSTEMS DESIGN CONSIDERATIONS

As noted in the "Introduction", New York State's new Criminal Procedure Law (CPL) posed some serious problems for NYSIIS in September 1971. These problems were:

1. Increased Workload – Under the new CPL, all misdemeanor arrests, as well as felonies, required the submission of fingerprints.
2. NYSIIS Criminal History required at arraignment for all serious offenses.

The above requirements were to be met without increases in the clerical processing staff.

In order to achieve this formidable task, it was evident that major improvements must be made to the existing criminal history system. The following areas were determined to be most relevant:

a. Improve the overall work flow
b. Reduce, as much as possible, the manual tasks involved
c. Expedite the processing of high priority prints in the system.
d. Place less time consuming tasks prior to the identification functions

In the fall of 1970, the analysis and design work for the new processing system began. The new system is called simply SYSTEM '71.

SYSTEM '71 DESCRIPTION

The following is a description of the fingerprint document flow through SYSTEM '71.

COMMUNICATIONS SECTION AND MAIL UNIT

NYSIIS receives fingerprint cards in basically two ways: facsimile and mail. High priority prints are received by facsimile. These are usually made up of arrest prints for individuals awaiting arraignment. The response time for facsimile prints is established at three hours from time of receipt (present response time is averaging about two hours).

Lower priority prints (incarceration, pistol applicants, job applicants, police applicants, etc.) are sent in by mail. All prints, regardless of the input mode, are sent to the Input Quality Control Section by means of the Messenger Service.

INPUT QUALITY CONTROL SECTION

This unit performs three functions:

a. Preliminary quality check – to insure the basic data elements are present.
b. Assigns the proper processing priority – depending on the document type, selects the appropriate Transaction Control Document (TCD – See Exhibit 1) and attaches it to the top of the fingerprint card. The TCD is color-coded by priority.
c. Requests and attaches label to TCD – the clerk, seated at a terminal device connected to the computer system, requests a label. The computer prints out the Transaction No. and date and time on a label. The operator places the pressure sensitive label in the space provided on the TCD.

NOTE: This is the first inter-action with the computer system. The transaction number assigned to the document will be used to trace this item both internally (in the computer queue) and externally (for manual expediting) throughout the system. An internal computer queue slot has now been activated showing the date and time.

PRIMARY CLASSIFICATION UNIT

Primary fingerprint classification is recorded on the document for all mailed-in prints (primary class was put on for facsimile prints when received in the Communications Unit).

DATA PREPARATION UNIT

A complete quality check is performed on the document and all necessary coding, editing or transcription is completed at this station. If any critical data elements are missing or found to be incorrect, the document is returned to Input Quality Control where the contributor is contacted by dataphone (facsimile prints only), telephone or by mail (low priority material). See Exhibit 2 – NYSIIS Arrest Fingerprint Card.

DATA ENTRY SECTION

All required data elements are entered into the computer queue by means of cathode ray tube (CRT) devices. The transaction number, printed on the label attached to the TCD, is the element which ties this transaction to the appropriate computer queue location.

Each data element is entered into the numbered location on the pre-formatted CRT screen (See Exhibit 3). The numbers on the screen coincide with the numbered boxes on the fingerprint card.

Once the data is entered, computer edits are performed. Any errors detected are returned to the operator for correction. The operator will then correct any improperly keyed items. After the second edit check, if any errors remain, the document is sent to Error Correction for resolution. If the error is deemed to be a "source information" error, the document is returned to Input Quality Control for subsequent contact with the contributor.

When the data has been accepted by the computer edits, two automatic functions are triggered by the acceptance of the valid record into the computer queue..
These functions are:

a. An NCIC Wanted Inquiry Message is generated and sent to NCIC.
b. A name/number search is made of the NYSIIS Name and Wanted Files.

Positive responses from NCIC are printed out on a terminal in the NYSIIS Wanted Section and the appropriate indicator set in the computer queue.

If a positive response is returned from the search of the NYSIIS Wanted file, the Wanted Persons record number is stored in the computer queue for subsequent retrieval.

If any suspects are returned as a result of the name/number search of the Automated Name files, the identification number(s) is printed out on a terminal in the Data Entry Section. An operator records the number(s) on the TCD attached to the fingerprint card.

At this point in the system the fingerprint document can go in either of two different directions. If Automated Name Search suspects are returned and noted on the TCD, the print would be routed to the Master Fingerprint files for positive identification. Otherwise, the print proceeds to the Manual Name Index section.

MANUAL NAME INDEX SECTION

All prints which did not produce automated name search suspects are routed to this unit for manual searching in the 3 x 5 card manual name files.

The index cards are filed by Soundex Code of the last name, first name and primary classification within first name groups. Also, the files are separated by males and females.

If a possible identification is made, the print is forwarded to the Master Fingerprint files for positive verification of the identification.

If no suspects are found as a result of the manual name search, the print is forwarded to the Classification Unit.

CLASSIFICATION UNIT

Whenever a search of either the automated or the manual name files fails to turn up a possible ident, the print is routed to the Classification Unit for full fingerprint classification. The full classification is used as part of the fingerprint search argument.

A fingerprint technician classifies the print using the American Fingerprint Classification method.

The prints are then forwarded to the Master Fingerprint Unit.

MASTER FINGERPRINT UNIT

The fingerprint unit at NYSIIS is divided into two specific areas:

a. Machine Section
b. Manual Section

The fingerprint masters are filed in these areas depending upon the following breakdowns:

Machine Section – This unit contains prints for individuals born in 1925 and later, for all fingerprint classifications except those having "arch patterns" in any finger besides the index finger.

There are some other age groups with certain classifications also included but to try to explain which ones and the rationale would only tend to confuse the reader.

The fingerprints in this unit are filed by identification number for speedy retrieval.

Manual Section – Contains all other age groups not in the Machine Section. It also contains all prints that have an "irregular classification". This means the print has an "arch pattern" in finger(s) other than the two index fingers. Also any prints that have one or more missing digits are stored in the Manual Section.

The prints in this unit are stored by classification, within age group and separated by sex.

Searching – When a print was not tentatively identified by name searching, it was fully classified and sent to Master Fingerprint Unit for searching. Depending on the rules established above, the print will be either searched manually in the Manual Section or an automated search performed in the Machine Section. (Approximately 70% of the present fingerprint volume requiring search utilize the automated search).

In order to perform an Automated Fingerprint Search, an operator simply enters the transaction number from the TCD and the full fingerprint classification into the pre-formatted CRT screen located in the Machine Unit (See Exhibit 4 for the formats). Other elements utilized in the search (such as sex, date of birth, initials) are programmatically extracted from the computer queue. When the search is completed (most searches take about 30-45 seconds) the results are printed out on a terminal device beside the CRT input devices. Arrest fingerprint searches can produce a maximum of ten suspects.

The search results are removed from the terminal and attached to the fingerprint input. A fingerprint technician then pulls the appropriate master card from the files using the identification number printed out as a result of the search. The technician then compares the incoming print with the master and makes a determination whether the fingerprints match or not. If the technician declares the prints to be the same, they are then checked by a senior technician to insure the match. The NYSIIS Identification No. on the Master Print is then recorded on the incoming print in the space provided.

In the case where "no suspects" are produced by the fingerprint search or the suspects produced did not match the Master print, the incoming print is declared a "non-ident". The appropriate box is checked on the TCD and the document is passed to the Control Terminal.

Prints which require manual searching in the Manual Unit, take considerably longer to be processed.

As mentioned before, the prints in the Manual Section are filed by classification within age group. When a manual search is performed, the technician must manually find the proper section of the file and finally look at each individual fingerprint card containing like classifications. A positive identification is made in this section in the same manner as those made in the Machine Section.

Earlier in the processing flow, at the Data Entry and Manual Index Sections, it was stated that possible suspects may be found when doing either an Automated Name Search or a Manual Search in the Name Index Unit. In either case, the identification number(s) is recorded and the print is then routed directly to the Master Fingerprint Section for verification of the identification.

Prior to SYSTEM '71, the verification of a name index hit in the Manual Section, in all cases, required an actual search of the Manual file to retrieve the master print. A major improvement of SYSTEM '71 was to provide a supplemental file in which the prints could be retrieved by identification number. This file was created by making high resolution copies of Manual master prints. To date, only a portion of the Manual file is duplicated in the supplemental file. All new (non-ident) entries are presently being copied as a part of the SYSTEM '71 process.

Once an identification is made or the print is declared a "non-ident", the appropriate hit location box is checked on the TCD. If the initial identification was made by the Automated Name Search, box 1 is checked (See Exhibit 1 – TCD). If the initial ident was made in the manual search of the Name Index files, box 2 is checked. If the ident is a result of the automated or manual fingerprint search process, box 3 is checked. If the print was received with a NYSIIS number supplied and, subsequently, verified to be correct, then this print is considered a "Field Hit" and box 4 is checked. As stated previously, if the print is declared a "non-ident", then box 5 is checked. This "Hit Location" information is captured at the Control Terminal and is later tabulated as a part of the operational reports produced. In the case of an ident, the identification number (NYSIIS number) is written in the space provided on the fingerprint card. The documents are then sent to the Control Terminal for processing (located in the Machine Section).

SYSTEM '71 CONTROL TERMINAL

All SYSTEM '71 fingerprint documents are routed to the Control Terminal after the identification function has been performed.

Entry of control information at this station will trigger the updating of all appropriate computer files (criminal history file, automated name file, automated fingerprint search file). The computer response to this entry will inform the operator whether a computer-produced criminal history is being made or a manually prepared rap sheet is required.

The results of the wanted searches of NCIC and NYSIIS files are also printed out for the terminal operator.

An example of the entires made and the computer response at the Control Terminal is shown in Exhibit 5.

Based on the computer response received at the Control Terminal, the operator will note the type of response to be made (computer or manual) and also record the "Wanted" status on the TCD.

If the fingerprint being processed at the Control Terminal was declared a "non-ident", the computer will print out the NYSIIS number assigned to that print. The operator then records that number on the fingerprint card.

Also, if the non-ident print is a *facsimile* copy, a "charge-out" is made for the print and filed in the Machine Section by NYSIIS number. If the non-ident print is an *original, hardcopy* print (mailed in from an area not serviced by facsimile), it will be filed directly into the appropriate section, Machine or Manual. In the case of a Manual Print, a high resolution copy is made for filing by NYSIIS number as well as by classification.

The document flow from this point is dictated by the type of response being made to the user (computer or manual).

If a computer response is being made, the fingerprint card and TCD (or TCD only if the print was an original hard copy which is now filed in the Fingerprint files) are routed to the Output Quality Control Section. Incidentally, all non-ident responses are computer-produced.

If the response is to be manually prepared, the fingerprint card and attached TCD are routed to the Assembly Section.

NOTE: Additional Wanted File Search

When the Control Terminal operator enters the NYSIIS number for an identified print, the computer will automatically perform a "Wanted NYSIIS number" search. All users of the NYSIIS Wanted/Missing Persons System are requested to provide the NYSIIS number, if known, when making a Wanted Person Entry. This number, upon entry is posted internally as being "wanted" and would, therefore, be automatically checked when fingerprints are submitted to NYSIIS.

This additional check means that if an arrestee supplies a false name and is subsequently identified by fingerprint searching, the agency would be notified of his apprehension.

OUTPUT QUALITY CONTROL SECTION

At the moment that the Control Terminal operator received notification that a computer-produced criminal history response was to be made, the criminal history retrieval process had already begun within the computer system.

The arrestee's prior history is retrieved from the computer disk files, this latest event (including name, date of birth and other pertinent information) is added to his history and his complete record is printed on the high speed printer (See Exhibit 6 – Computer-produced Criminal History).

While the above process is taking place, the fingerprint document and attached TCD are routed to this section from the Control Terminal. The

criminal history produced is then matched up with the input document. A quality check is performed and any previously undetected errors corrected.

If the TCD indicates a "Wanted" status, the fingerprint card, TCD and criminal history are routed to the Wanted Section.

Transactions which do not require routing to the Wanted Section are forwarded directly to the Communications Section (for facsimile responses) or to the Mail Unit (for mailed responses).

ASSEMBLY SECTION

When the Control Terminal response indicated that a manually prepared "rap sheet" was required, the fingerprint document and TCD were routed to this section for processing.

In this section, the Assembly jacket is drawn, the data edited and prepared for manual preparation of the rap sheet. The jacket, fingerprint card and attached TCD are then routed to the Typing Section.

TYPING SECTION

Upon receipt of the documents from the Assembly Section, typists will prepare the criminal history response. A quality check is then performed and any errors corrected.

If the TCD indicates a "Wanted" status, the transaction and all associated documents are routed to the Wanted Section. Otherwise, the documents are routed to either the Communications Section or the Mail Unit.

WANTED SECTION

In the Wanted Section there are hard copy terminals used to print "Wanted Notices" for transmission to the inquiring agency. Input to this unit is received from both the Output Quality Control and Typing Sections as a result of the "Wanted Status" notification received at the Control Terminal.

When the "wanted" indication was received at the Control Terminal, the computer system retrieved the "Wanted" information and printed it out on the terminal(s) in the Wanted Section. The Wanted Notices are then matched up with and attached to the appropriate criminal histories (rap sheets).

The documents are then forwarded to Communications Section.

COMMUNICATIONS SECTION – MAIL UNIT

The Communications Section is responsible for both the receipt of fingerprint facsimile transmission from the user and the transmission of rap sheet responses to the user agencies. This, of course, includes notification of any Wanted information retrieved during the processing of fingerprint submissions through System '71.

The Mail Unit, of course, addresses, packages and mails all responses utilizing this type of response. Incidentally, all facsimile transmitted responses are also followed-up by a mailed copy of the criminal history response.

Once the response has been sent to the user, the TCD is removed and routed to the Queue Close Terminal. All other documents are filed in their appropriate sections.

If the input fingerprint was received by facsimile, the FAX copy is now sent to the Facsimile Hold File. Each print is then filed by submitting agency, in FAX Control No. (a sequential No. supplied by each agency) order. The submitting agency will, upon receipt of the criminal history response, mail in the original, hard-copy fingerprint card. Upon receipt of the original, the FAX copy is destroyed and the original filed (replacing the charge-out) in the Fingerprint (Machine or Manual Section) Files or in the Assembly jacket.

If the input print was an original, hard-copy (from an agency not serviced by facsimile) print, it would already have been filed in the Fingerprint Files (non-ident) or would now be sent to Assembly for filing in the jacket.

PROCESS CONTROL UNIT

The TCD is sent to the Queue Close Terminal in the Process Control Unit once the criminal history response has been made. An operator enters the Transaction No. into the terminal, notifying the computer system that this item is now closed out.

Daily, a special computer run is initiated which extracts basic information from the internal queue for each transaction closed out. This information is summarized to produce the "System '71 – Daily Operating Report". Once the information needed has been tabulated, the closed internal queue locations are re-initialized for subsequent re-use.

Another function of the Process Control Unit is expediting high priority transactions. In order to meet the requirement to respond to pre-arraignment facsimile prints within a definite time constraint (three hours), it was necessary to establish procedures for expediting these transactions.

Hourly, a computer program is run which searches through the entire internal System '71 queue. This program lists all high priority transactions that are presently in the work flow, noting

the time in process and the time the transaction was recorded at each computer-related station (i.e. Data Entry, Control Terminal, etc). This report is a very effective tool used by the Process Control expediters to insure the rapid processing of all high priority transactions.

The preceding pages are an attempt to give an overview of the fingerprint processing system presently operational at NYSIIS. For those readers interested, more in-depth details can be provided upon request.

CONTRASTING THE OLD SYSTEM WITH THE NEW

Listed below are some of the major improvements which have been realized in the new processing system.

On-Line Data Entry – Entry of all pertinent information at the "front end" of the system, prior to the identification function instead of after. This eliminates certain processing backlogs inherent in the old system.

The need for manual entry of the same data at different points in the old system has been eliminated (fingerprint search, wanted search and criminal history have many common data elements). Wanted searches and Automated Name Searching is a by-product of the entry of data for criminal history purposes.

Error correction procedures have been greatly simplified in the new system. Data Entry operator is notified immediately and in most cases, error can be rectified by re-entry, without need for re-cycling of the document. The old system provided computer error listing which had to be clerically-checked, documents collected, repunched and re-cycled through the computer system.

Improving Response Time To Users – The total response time for high priority prints has been significantly reduced. However, it is even more significant that the turn-around time for lower priority items has been *vastly* improved. Response time for these items can now be measured in days as opposed to weeks in the old system.

Improving The Overall Work Flow – Very significant improvements in the document flow have been made through SYSTEM '71. There are other improvements which are being planned and will, hopefully, be incorporated in the near future.

THE COMPUTER SYSTEM

The "heart" of SYSTEM '71 is contained in the computer system. The fingerprint processing function is truly controlled and driven by the interaction of the operating personnel and the computer system.

The following is a listing of the computer system components which support SYSTEM '71.

BURROUGHS B-6700 COMPUTER SYSTEM

Main Frame

2 – B6700 Central Processors (1.2 micro-second cycle time)
12 – Memory Modules (16,384 words each)
2 – Maintenance Diagnostic Displays
2 – Input/Output Multiplexors (6 I/0 channels on each)
2 – Data Communications Processors (4,096 words each)

Peripherals

70 – Disk Modules (40 milli-second average access) – 1.4 Billion Bytes
5 – Tape Drives – Phase Encoded – 1600 BPI – 240 KB
4 – High Speed Printers – 1020 lines per minute
2 – Card Readers – 800 cards per minute
1 – Card Punch – 300 cards per minute

Terminals (By Location)

10 – Data Entry Section
3 – Error Correction
3 – Wanted Section
3 – Fingerprint Search – Input
3 – Manual Name Index (For Correspondence)
22 – Burroughs CRT Devices

1 – TCD Label Assignment
1 – Data Entry
1 – Fingerprint Search – Output
2 – Control Terminals
2 – Wanted Section
1 – Queue Close Terminal
8 – Burroughs TC-500 Hard Copy Terminals

THE ACID TEST

SYSTEM '71 became a reality on January 31, 1972.

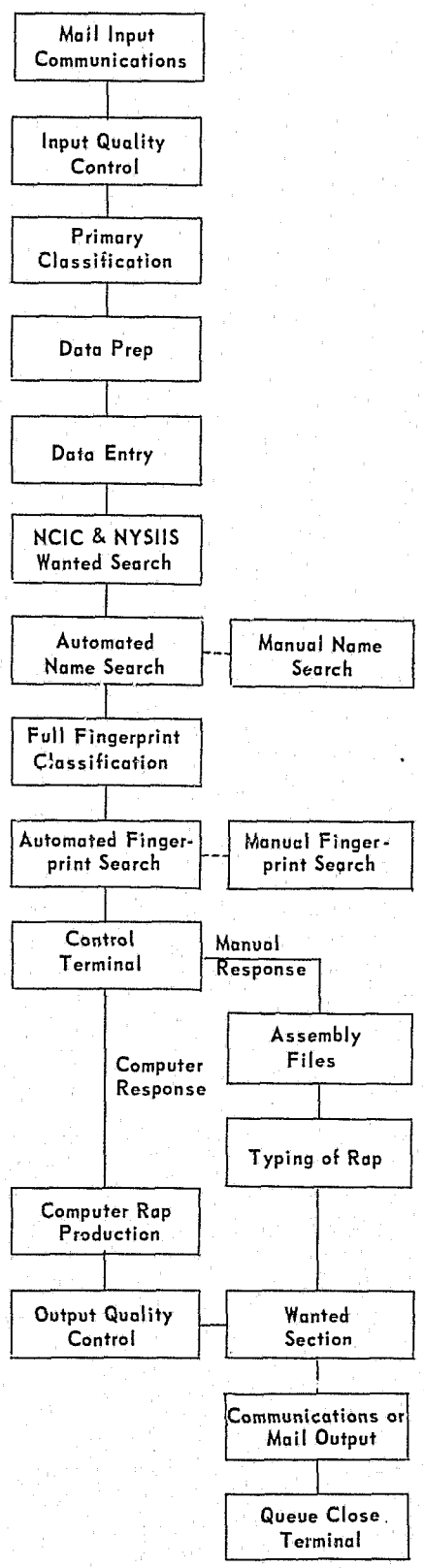
After many weeks of preparation and final system tests concluded, the "moment of truth" was at hand.

SYSTEM '71, by necessity, had to be implemented or superimposed over the existing fingerprint processing system. There was simply too much work-in-process to accomplish the conversion task any other way.

The key to the change-over was the Transaction Control Document (TCD). The new TCD was to be attached to all fingerprints entering SYSTEM '71 processing. Any document with an "old" TCD attached (the design, size and construction of the new TCD was entirely different from the old) was to be processed using the old system.

The initial days and weeks of the new system were literally "chaotic". Clerical confusion, coupled with intermittent failures of computer programs, software and hardware, made life totally unbearable for everyone involved – from top management on down to the least senior mail boy.

SYSTEM '71 – GENERAL PROCESS FLOW



Receipt of fingerprint cards, either through the mails or over the facsimile communications networks. Primary fingerprint classification is recorded on Facsimile copies upon receipt of the facsimile fingerprint.

Transaction number and priority assigned and transaction control document (TCD) attached to input document. (See EXHIBIT 1). Computer queue is activated.

Primary Fingerprint classification recorded on non-FAX document for Name searching purposes. Facsimile copies had the primary fingerprint classification entered on document at time of receipt.

Data is quality checked, primary classification is coded for inputting and a code/edit operation is performed preparatory to data entry. (See EXHIBIT 2).

All data available on the document that is required by the system for computer processing is entered via Cathode Ray Tube Terminals. (See EXHIBIT 3).

Performed automatically after entry of data at the data entry terminals.

Performed automatically after entry of data at the data entry terminals (and manually, if necessary) using name, date of birth, primary fingerprint classification and other secondary criteria for matching purposes.

Performed on those prints not identified through a Name Search. Classification data is used in a Fingerprint Search.

Operator enters Tran. No. and Full Classification to perform automated search. (See EXHIBIT 4).

Specific control information keyed in for use in "triggering" all required file updating, NYSIIS Number assignment and informing key operator whether a computer response is being produced or a manual response will be required. (See EXHIBIT 5).

For a manual response, the identified individual's jacket is drawn and edited.

Preparation of manual response using the identified individual's jacket.

Automatic drawing of the identified individual's records from the computer disk files and preparation of a computer produced rap sheet. (See EXHIBIT 6).

Quality Control check of the computer-produced rap sheet.

If Control Terminal indicated a "Wanted" status, documents routed to Wanted Section for attachment of Wanted Notice.

Output response sent back to requesting jurisdiction by mail or by facsimile message transmission.

Transaction Control Document (TCD) is detached when response is made and forwarded to Queue Close Terminal for close out.

Round-the-clock coverage, seven days a week, was required of virtually all the systems, programming and middle management staff. The response time to users truly suffered. There were several times when the decision was *nearly* made to revert back to the "old processing system". Fortunately, that decision was never made. To have done so, would have been sheer disaster.

By April, through the truly valiant efforts and total cooperation (though sometimes strained) of the Bureaus involved (Identification, Computer Operations and Systems Development), the major battle with the new system was won. The processing gaps were filled, the computer programs seldom aborted and the computer hardware settled down.

We were then able to devote our time to making the usual post-installation refinements necessary to smooth out the wrinkles.

In retrospect, one must wonder "there must be an easier way". Indeed there is, if one has the luxury of designing, building and installing a totally new system where one did not exist before. This luxury was not possible in our case. There simply wasn't any way to call a "moratorium on crime" for a few weeks until the SYSTEM could be smoothed out.

In the final analysis, if the circumstances are similar, it would appear that the only feasible approach to implementing a large, intricate system is to:

a. Prepare as best as is humanly possible.
b. Perform extensive overall "systems tests".
c. When satisfied with the above, put the system to the "acid test"; implement it.
d. Stick with it; make it work. Be prepared to spend a few (?) nights at the office.

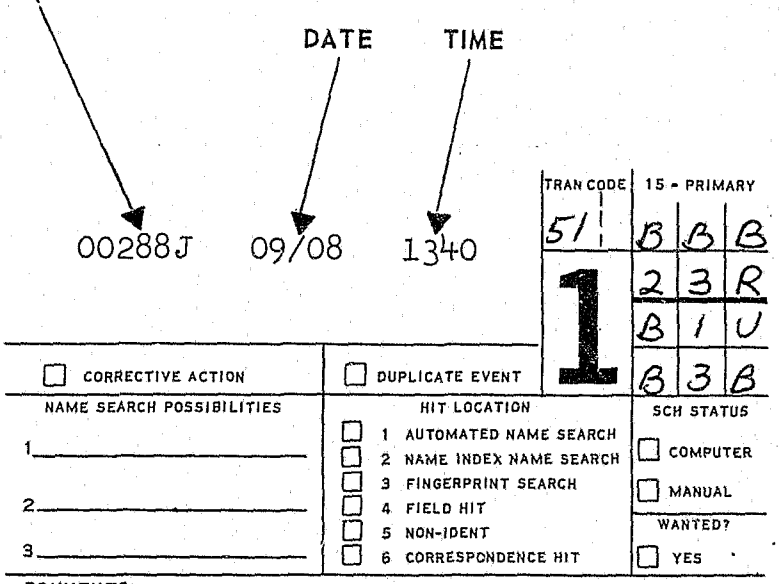
EPILOGUE

On September 1, 1972, the New York State Identification and Intelligence System was combined with the Division for Local Police and the Division of Criminal Justice Services to form the new Division of Criminal Justice Services. The new division in the Executive Department is under the leadership of Commissioner Archibald Murray.

The creation of this new agency will, undoubtedly, open new horizons for the Identification and Information System (as we are now called) in the services to be rendered to the criminal justice community.

SYSTEM '71 has been operational now for a period of eight months. It is working effectively and efficiently, surpassing all of our initial expectations. It is by no means completed, as many improvements are presently underway. It is merely a "beginning": A beginning in which all who participated in its development and those who have made it work, can justly take pride.

TRANSACTION NO. (WITH CHECK DIGIT)



I/I – 550 (3/71)

TRANSACTION CONTROL DOCUMENT

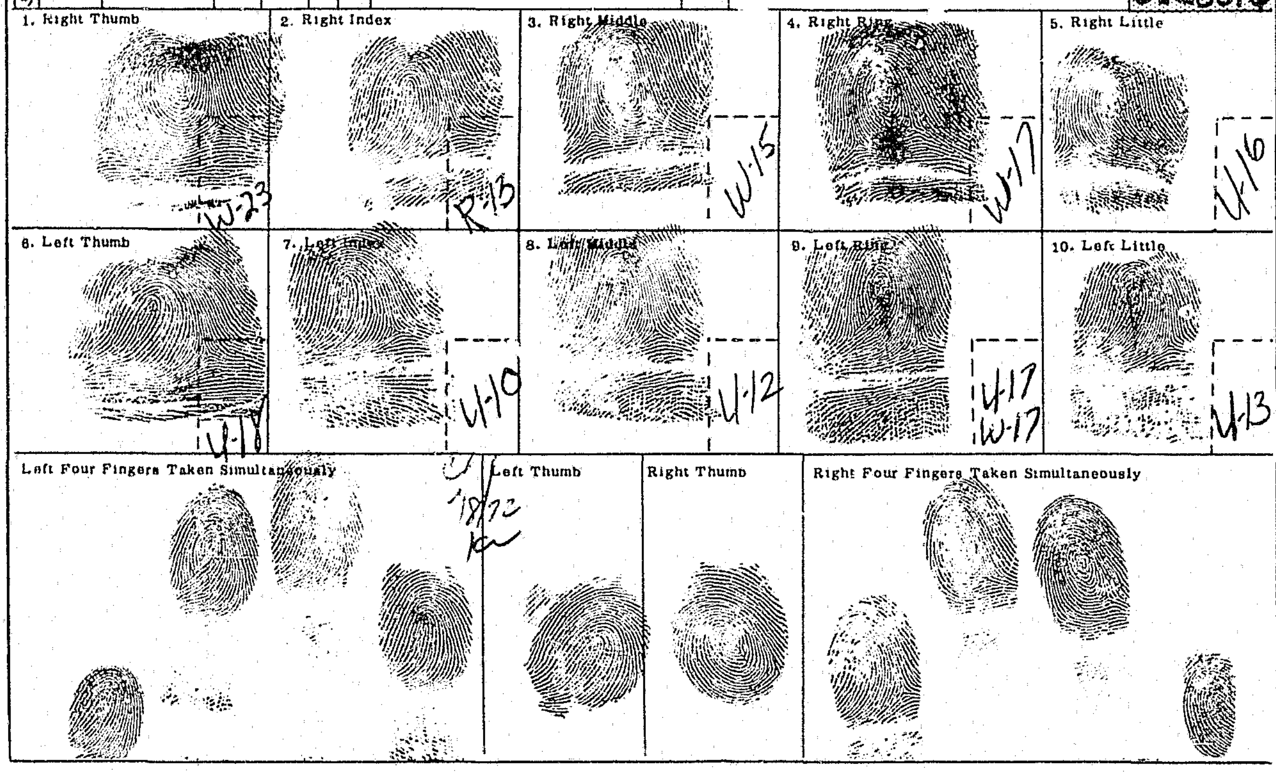
EXHIBIT 1

NYSIIS—2 ARREST F/P CARD

Field	Entry
1. NYSIIS Number	
2. Name of Person Fingerprinted (Last—First—Middle)	Finster, Albert Henry
3. Classification (Leave blank)	23R / 1U / 3
4. Address of Person Fingerprinted	13 Division St/Amsterdam, ~~N.Y.~~
5.	NY
6. Nickname	Pinky
7. Alias and/or Maiden Name	Jordan, Henry
8. Sex (M / F)	M: X
9. Racial Appearance (White / Negroid / Mongoloid)	White: X
10. Skin Tone (Light / Medium / Dark)	Light: X
11. Height (Ft. / In.)	5 / 05
12. Date of Birth (month—day—year)	09-04-49
13. Place of Birth (City and State)	Saratoga Springs, ~~NY~~
14	NY
15	
16. Agency Ident. Number	M712
17. FBI Number	143282J1
18. Social Security No.	069712413
19. Date Fingerprinted	09-29-71
20. Signature of Person Taking Prints	William Preston
21. Date of Arrest	09-29-71
22. Place of Arrest (City and State)	Amsterdam, N.Y.
23	NY2801P
24. Signature of Person Fingerprinted	Albert Henry Finster
25. Date of Crime	09-07-71
26. Place of Crime (City, County & State)	Amsterdam, N.Y.
27	NY2801P
28. Fac. Con. No.	
29. Arresting Agency	422801 H / ~~Amsterdam PD~~
31. Contributor	422801 H / ~~Police Dept.~~
31a Prec.	
Arrest No.	
Court of Arraignment	Police Ct.
33	322801Q

30. CHARGE(S)

Law	Section No.	Sub. Div.	Class	Off Cat	Att. Code	Name of Offense	Degree	Cts.
PL	140.30	00	B	F	0	Burglary - 1st	1	02
PL	165.45	02	E	F	0	Poss.Stln.Cr.Card	2	04
PHL	3305.0	00	U	M	0	Poss. Narc. Misd.	0	01



THE ABOVE IS AN EXAMPLE OF AN ARREST FINGERPRINT CARD — ALL DATA SHOWN IS PURELY FICTICIOUS. THE PRINTS ARE THOSE OF AN "INNOCENT" PROGRAMMER.

EXHIBIT 2

NYSIIS–2 (4/70)
(Arrest)

STATE OF NEW YORK – EXECUTIVE DEPARTMENT
IDENTIFICATION AND INTELLIGENCE SYSTEM
ALBANY, NEW YORK 12203

Do not write in this space.

34. Name(s) and ID Number(s) of Associates

NONE

35. Description of Crime	36. Occupation	37. Wt.	38. Color of Hair
Suspect apprehended while burglarizing a dwelling at night and was in possession of stolen credit cards and ½ oz. of marijuana.	Laborer	165	Brown

39. Physical Marks & Oddities	40. Additional Information
2" scar on left cheek	

INSTRUCTIONS

Leave all shaded areas blank.

Enter dates as month/day/year, e.g. 11–29–67.

When rolling fingerprints, disregard the dotted box in lower right corner.

1. NYSIIS No. – Formerly DCI Number.
6. Nickname – Enter any identifier, except versions of person's name, usually descriptive, e.g., Baldy, Shorty, Butch, Fatso.
7. Alias and/or Maiden Name – Enter any alias. An alias is a complete name in which the given and/or surname is different than those entered above.
9. Racial Appearance – Check the racial category which best describes the person's appearance: White if Caucasoid, Negroid if Negro, and Mongoloid if Oriental or American Indian. Classify as White persons those of mixed ancestry who are definitely not Negroid or Mongoloid.
10. Skin Tone – Check the skin tone category which best describes the individual's complexion in relation to his racial appearance. For example, classify white persons with olive or swarthy complexion as Dark Skin Tone, and classify light–colored Negroes in the Negroid Category as Light Skin Tone.
13. Place of Birth – If not U.S.A., enter city and country.
16. Agency Ident. Number – Enter your identification number assigned to this individual.
25. Date of Crime – If more than one, use space in Item 40.
26. Place of Crime – If more than one, use space in Item 40.
28. Facsimile Control Number – Enter when facsimile transmission is used.
30. Charge(s) – Enter all charges with most serious first, as set forth in the NYSIIS Charge Code Manuals. If more space is necessary, enter in Item 40.
    Law – Enter law abbreviation. For example
    PL – Penal Law CCP – Code of Crim. Proced.
    PHL – Public Health Law VTL – Vehicle & Traffic Law
    Section Number – Enter Section Number of Law.
    Subsection Number – Enter number found after dash in Section Number.
    Class – Enter class of crime, A,B,C,D,E, or U–Unclassified.
    Offense Category – Enter letter as follows:
    F – Felony V – Violation
    M – Misdemeanor I – Infraction
    Attempted Code – Enter letter as follows:
    A – Attempted Crime O – Actual Crime
    Name of Offense – Enter name of crime for which individual is charged, such as Fraud, Assault or Larceny.
    Degree – Enter degree of crime, if applicable.
31. Contributor – Enter name of agency if different than Arresting Agency.
32. Court of Arraignment – Enter Court name and City, Town or Village. Enter name of Justice of Peace or Police Justice and mailing address in Item 40.
    NYC – Enter court name including part of court and borough. For example, Criminal Court, Part 1A, Queens.
34. Name(s) and ID Number(s) of Associates – Enter name(s) and ID Number(s) if known, of persons arrested with or involved with the arrestee in the commission of the offense for which the fingerprint card is submitted.
35. Description of Crime – Describe the criminal act for which this individual was arrested.
39. Physical Marks & Oddities – Enter any amputations, deformities, visible scars, marks or tattoos.
40. Additional Information – Enter any miscellaneous information which may be helpful.
    Refer to the original entry whenever an item is carried over to Item 40, e.g., Item 25, Date of Crime –11–29–67.

EXHIBIT 2A

DATA ENTRY SCREEN FORMAT FOR ARREST PRINTS

◀TRAN NUMBER ▶00288J◀ TRAN CODE 51 PRIORITY ▶1◀ 15 ▶BBB23RB1UB3B◀ CORR ACT ▶0◀

01 ▶ ◀ 02 FINSTER, ALBERT HENRY

03 ▶13 DIVISION ST ◀ 04 ▶AMSTERDAM ◀ 05 ▶NY◀

06 ▶PINKY ◀ 07 ▶JORDAN, HENRY ◀

08 ▶M◀ 09 ▶W◀

10 ▶L◀ 11 ▶506◀

12 ▶090449◀ 13 ▶SARATOGA SPRINGS ◀ 14 ▶NY◀

16 ▶M712 ◀ 17 ▶143282J1◀

18 ▶069712413◀ 21 ▶092971◀

23 ▶NY2801P◀ 25 ▶090771◀

27 ▶NY2801P◀ 28 ▶ ◀

29 ▶422801H◀ 31 ▶422801H ◀ 33 ▶322801Q ◀

30 ▶PL 1403000BF01◀ ▶02◀ 30 ▶PL 1654502EF02◀ ▶04◀

30 ▶PHL3305000UM00◀ ▶01◀ 30 ▶ ◀ ▶ ◀

I Q C DATE/TIME ▶ ◀ MORE ▶N◀

ERRORS: ▶

EXHIBIT 3

AUTOMATED FINGERPRINT SEARCH INPUT SCREEN

◀ REQUEST ▶ S ◀

TRAN – NO ▶ 00288J ◀

RT HAND ▶ W23, R13, W15, W17, U16.

LT HAND ▶ U18, U10, U12, U17 W17, U13.

PRIORITY ▶ 1 ◀

SEX ▶ M ◀

DOB ▶ 09/04/49 ◀

INITIALS ▶ AHF ◀

AUTOMATED FINGERPRINT SEARCH SUSPECT LIST

09/08/72 TIME IN 13:28 TIME OUT 13:29 PRI 1

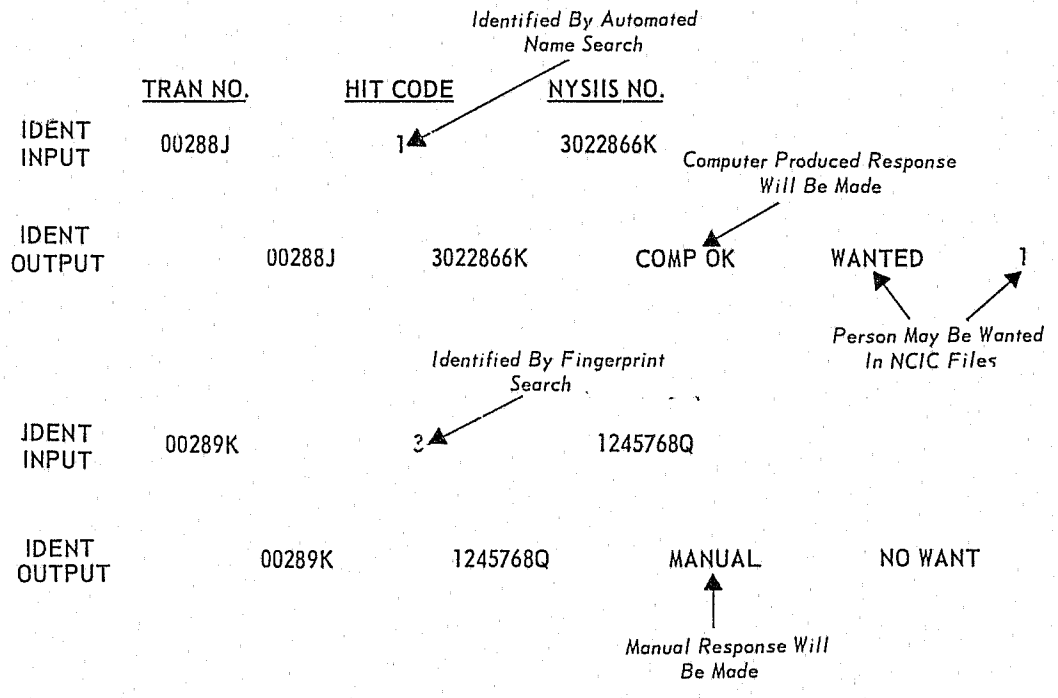
S 00288J M 09/04/49 AHF

W23, R13, W15, W17, U16, U18, U10, U12, U17 W17, U13.

SUSPECTS N3088246J 0154019
G1453488 0052404

EXHIBIT 4

EXAMPLES OF CONTROL TERMINAL ENTRIES AND RESPONSES



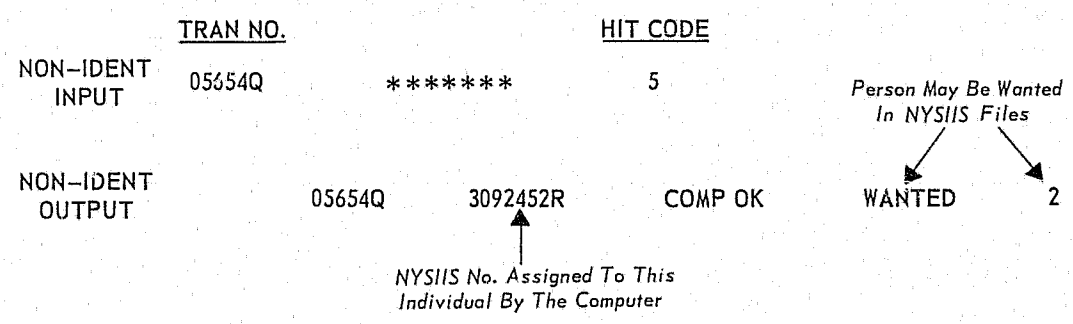


EXHIBIT 5

STATE OF NEW YORK — EXECUTIVE DEPARTMENT
IDENTIFICATION AND INTELLIGENCE SYSTEM
EXECUTIVE PARK TOWER — STUYVESANT PLAZA — ALBANY, N.Y. 12203

DATE 09-20-71 TRANS. NO. 12857 PAGE 1

NYSIIS NO. 0078301A THIS RESPONSE TO YOUR INQUIRY IS BASED ON A F/P IDENT
INQUIRY NAME SAMPLE,SAM SKIN TONE MEDIUM SEX MALE HGT. 6-01 FBI NO. 0427373B
KNOWN AS SAMPLE,SAMUEL RAC. APP. WHITE BIRTH 7-16-31 SOC. SEC. NO. 183-32-1749

CONFIDENTIAL TO: FEDERAL BUREAU OF INVESTIGATION
FEDERAL BUILDING
ALBANY, N.Y. 12207

= = = SUMMARY OF NYS CRIMINAL HISTORY INFORMATION = = =

	ARREST DATE		CHARGES	DISPOSITION
1	09-02-67	PL	B FEL SELLING DANG DRUG 8OZ OR MORE	05-04-68 ACQUITTED
		PL	E FEL POSSESSION DANGEROUS DRUG -3RD	05-04-68 3 YEARS
2	07-26-71	PL	A MISD ASSAULT -3RD	08-01-71 COND DISCH

01 = = = = = CRIMINAL HISTORY = = = = =

ARREST: SAMPLE,SAMUEL AGENCY ID B184667
ADDRESS: 121 3RD AVE NEW YORK CITY NEW YORK
CRIME DATE/PLACE: 09-02-67 NEW YORK CITY NEW YORK
ARREST DATE/PLACE: 09-02-67 NEW YORK CITY NEW YORK
AGENCY: NY CITY POLICE DEPT PCT 53 NEW YORK CITY NEW YORK
ARREST CHARGES:
PL 220.40-02 B FEL SELLING DANG DRUG 8OZ OR MORE
PL 220.10-00 E FEL POSSESSION DANGEROUS DRUG -3RD
DISPOSTION: 05-04-68 DOCKET NO 00003333
MANHATTAN SUPREME COURT NEW YORK CITY NEW YORK
CHARGE: PL 220.40-02 B FEL SELLING DANG DRUG 8OZ OR MORE
ACTION: 05-04-68 ACQUITTED
CHARGE: PL 220.10-00 E FEL POSSESSION DANGEROUS DRUG -3RD
ACTION: 05-04-68 CONVICTED
SENTENCE: 3 YEARS
SING SING STATE PRISON OSSINING NEW YORK
INSTITUTION ADMISSION: 05-05-68 INMATE ID 0045362
SING SING STATE PRISON OSSINING NEW YORK
NEW COURT COMMITMENT, NOT ON PAROLE
INSTITUTION RELEASE: 11-07-69 INMATE ID 0045362
SING SING STATE PRISON OSSINING NEW YORK
PAROLE: 11-07-69 18 MOS AGENCY ID 356723
PAROLED
DIVISION OF PAROLE NEW YORK

02 =
ARREST: JONES,DICK AGENCY ID 0235168
ADDRESS: 5366 1ST AVE NEW YORK CITY NEW YORK
CRIME DATE/PLACE: 07-26-71 NEW YORK CITY NEW YORK
ARREST DATE/PLACE: 07-26-71 LEEDS NEW YORK
AGENCY: N.Y.S. POLICE LEEDS LEEDS NEW YORK
ARREST CHARGES:
PL 120.05-00 D FEL ASSAULT -2ND

(THIS DOCUMENT IS AN EXAMPLE OF A COMPUTER-PRODUCED CRIMINAL HISTORY – ALL DATA SHOWN IS PURELY FICTICIOUS)

NYSIIS-5 (11/70) SUMMARY CASE HISTORY

*Represents arrest information unsupported by fingerprints in our files. All entries are as complete as the data furnished to NYSIIS

Robert R. J. Gallati Director

EXHIBIT 6

STATE OF NEW YORK — EXECUTIVE DEPARTMENT
IDENTIFICATION AND INTELLIGENCE SYSTEM
EXECUTIVE PARK TOWER — STUYVESANT PLAZA — ALBANY, N.Y. 12203

DATE 09-20-71 TRANS. NO. 12857 PAGE 2

NYSIIS NO. 0078301A THIS RESPONSE TO YOUR INQUIRY IS BASED ON A F/P IDENT
INQUIRY NAME SAMPLE,SAM SKIN TONE MEDIUM SEX MALE HGT. 6-01 FBI NO. 0427373B
KNOWN AS SAMPLE,SAMUEL RAC. APP WHITE BIRTH 7-16-31 SOC. SEC. NO. 183-32-1749

- - - - - CRIMINAL HISTORY - - - - -

ASSOCIATES: ROBERT PETERS NYSIIS NO 0600014B AGENCY ID B024956
SAMUEL P. JOHN AGENCY ID B024957
JOHN ROBERT JONES AGENCY ID B124956
DISPOSITION 08-01-71 DOCKET NO 00000001
MANHATTAN CRIMINAL COURT NEW YORK
CHARGE: PL 120.00-00 A MISD ASSAULT -3RD
ACTION: 08-01-71 CONVICTED PLEA OF GUILTY, LESSER OFFENSE
SENTENCE: CONDITIONAL DISCHARGE

- - - - - OTHER INFORMATION - - - - -

NAMES USED BY SUBJECT:
FREQ 04 SAMPLE,SAMUEL FREQ 01 JONES,DICK
RECORDED ADDRESSES:
09-02-67 121 3RD AVE NEW YORK CITY NEW YORK
07-26-71 5366 1ST AVE NEW YORK CITY NEW YORK
BIRTH DATE/PLACE:
FREQ 04 07-16-31 FREQ 04 NEW YORK CITY NEW YORK
FREQ 01 09-20-31 FREQ 01 ALBANY NEW YORK

- - - - - LAST PAGE - - - - -

NYSIIS-5 (11/70) SUMMARY CASE HISTORY

*Represents arrest information unsupported by fingerprints in our files.
All entries are as complete as the data furnished to NYSIIS

Director

EXHIBIT 6A

END