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## THESIS

DESIGN AND IMPLEMENTATION OF A PATIENT  
TRACKING AND RECALL SYSTEM FOR BRANCH  
DENTAL CLINIC MONTEREY

by

Timothy P. Steele

March 1992

Thesis Advisor:

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Design and Implementation of a Patient Tracking and Recall System  
for Branch Dental Clinic Monterey

by

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Lieutenant Commander, United States Navy  
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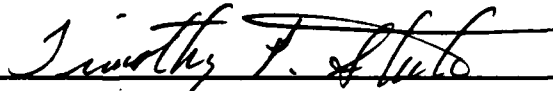
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## ABSTRACT

This thesis analyzes the information system requirements of Branch Dental Clinic, Monterey, and develops a computer application to automate the clinic's patient tracking and recall process. The application replaces an existing mainframe-based, single-file system with a PC-based, relational database management system that provides greater functionality, enables increased productivity, improves data integrity and accuracy, and includes currently lacking security features and administrative functions.

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## TABLE OF CONTENTS

I. INTRODUCTION AND PRELIMINARY INVESTIGATION .....	1
A. BACKGROUND .....	1
B. PROBLEM DEFINITION .....	3
C. SCOPE .....	5
D. EVALUATION OF ALTERNATIVE SOLUTIONS .....	6
1. Cost Feasibility .....	6
2. Technical Feasibility .....	7
3. Schedule Feasibility .....	8
II. REQUIREMENTS ANALYSIS .....	9
A. DATA REQUIREMENTS .....	9
1. Object Development .....	9
2. Domain Definition .....	11
B. APPLICATION REQUIREMENTS .....	11
1. Processes .....	11
2. Operational and Administrative Requirements .....	13
3. Environmental Requirements .....	14
III. SYSTEM DESIGN .....	15
A. LOGICAL DATABASE DESIGN .....	15
1. Object to Relation Transformations .....	15

2. Relation Descriptions . . . . .	16
B. APPLICATION DESIGN . . . . .	17
IV. SYSTEM IMPLEMENTATION . . . . .	21
V. SUMMARY AND RECOMMENDATIONS . . . . .	22
A. SUMMARY . . . . .	22
B. RECOMMENDATIONS . . . . .	22
LIST OF REFERENCES . . . . .	24
APPENDIX A: OBJECT SPECIFICATIONS . . . . .	25
APPENDIX B: UPDATE, DISPLAY, AND CONTROL MECHANISMS . . . . .	28
APPENDIX C: USER'S MANUAL . . . . .	34
APPENDIX D: RELATION DEFINITIONS . . . . .	35
APPENDIX E: PROGRAM CODE . . . . .	36
INITIAL DISTRIBUTION LIST . . . . .	37

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## **I. INTRODUCTION AND PRELIMINARY INVESTIGATION**

This thesis designs, documents, and implements a computer application to perform dental patient tracking and recall functions for the Branch Dental Clinic, Monterey (BDCM). Information that was collected during a preliminary investigation of the information system requirements of BDCM is presented in this chapter. Specifically, the relevant background of BDCM and the information system problems that led to the conduct of the thesis are presented, the scope of the project is defined, and three alternative solutions are evaluated.

### **A. BACKGROUND**

BDCM provides regular dental care and emergency dental treatment to all active duty military staff and students stationed both at the Naval Postgraduate School (NPS) and the various NPS tenant commands. Dental appointments are regularly scheduled based on a four-class rating system (1 to 4, in order of increasing priority) indicating the member's need for treatment. Emergency care is provided whenever required.

Interviews with the BDCM Director and staff identified four major information-oriented activities within the clinic: (1) appointment scheduling, (2) inventory management, (3) maintenance of a Dental Information and Retrieval System (DIRS) as prescribed by higher authority, and (4) patient tracking and recalls. With regard to appointment scheduling and inventory management activities, BDCM satisfaction with



current manual methods was found to be high. Moreover, the clinic Director felt strongly that attempts to computerize these two functions, given the relatively low volume of activity, would not increase efficiency or effectiveness. Hence, these two business functions were dropped from further investigation.

The DIRS system operates on a personal computer (PC) and consists of proprietary software provided by the Navy Regional Dental Center (NRDC) for use at all subordinate branch clinics. Since NRDC mandates that branch clinics use DIRS to collect and report detailed data on all dental care provided, further analysis of this activity was unnecessary.

Patient tracking and recall functions at BDCM are partially automated by a mainframe-based, single-user, single-file database management system. It is this system and the requirements of the patient tracking and recall process that the remainder of this thesis addresses.

The mainframe-based database application allows data entry and updating, tracks members' dental health status (class), generates recall notices, prints sorted member rosters, and provides operational readiness summary statistics. When members check their records into the clinic a dentist's review of their dental records results in a class rating being assigned. A class rating of "1" indicates no need for dental treatment beyond a mandatory annual examination (a T2-exam). A class rating of "2" or "3" indicates a need for additional treatment. A class rating of "4" indicates the member is past due for an annual exam (it is assigned regardless of dental health). Just prior to a member's T2-exam anniversary, he/she is notified by memorandum to make an

appointment for an annual exam using an automated patient recall system. Computer generated recall letters are routed to student mail center (SMC) mailboxes or staff offices as appropriate.

## **B. PROBLEM DEFINITION**

The existing application for patient recalls was written several years ago for use on the NPS mainframe computer. When the system was installed it provided significant benefits over the previous labor and time intensive manual recall process. However, the system was crude in its interface, limited in functionality, and difficult to use. Moreover, due to turnover of personnel since its installation, none of the current staff are familiar with the history of the system; no documentation can be found; and no system maintenance is available.

Interviews with end-users revealed five general problem areas with the mainframe-based system: poor access and responsiveness, unfriendly user-interface, inadequate data validation checks, absence of documentation, and incomplete functionality. Examples of specific problems highlighted by end-users in each of these general areas are presented below.

Limited mainframe access and poor responsiveness have been longstanding limitations. BDCM access to the mainframe is via communications software and 1200 baud modem from the clinic PC. By today's standards, this data transfer rate is slow. The system frequently responds slowly during working hours due to both the high number of users and resource-intensive computing tasks. Heavy use of the mainframe

by modem users combined with the limited number of modem receiving lines (16 at the time of this investigation) results in the frequent inability to access the system as needed. This necessitates periodic off-hour work by BDCM staff and delays response to telephone queries from NRDC regarding operational readiness.

Unfriendliness of the user-interface is a significant problem, particularly for new users. In most instances the user is presented with only a blank screen and a prompt, which specifies which application module is active (e.g., main, add, edit, delete, print). A rudimentary help function, when invoked, provides a list of options for the active module. Hence, unless all commands are memorized, the user must continuously invoke the help function to navigate and use the system. Data entry itself is facilitated somewhat by a field list from which the user selects a field to enter or edit, but it remains a cumbersome process. The user must select a field from the list, enter the data, and select another field from the list rather than simply automatically moving from one field to the next. Additionally, during record appending the field listing scrolls up and off the screen, leaving no hint of the remaining fields that require additional data entry.

The inadequacy of field validation checks in the mainframe application has allowed a cumulative deterioration in the accuracy and completeness of records in the database. For example, numbers are improperly allowed in various name fields. Moreover, since member records are indexed by name rather than Social Security Number (SSN), two people with the same name are prohibited from being entered properly into the database. In such instances, the user must deliberately attempt to circumvent or "trick" the system by, for example, putting in a middle initial for one member but not the other. Related

to this, the system saves a new record whenever data is entered into the name field, regardless of content and regardless of whether the record has any other fields completed. Over time the database has accumulated much erroneous data and many incomplete records. Cleaning the database has been problematic since records cannot be located and edited or deleted unless an exact name match is entered.

The lack of system documentation has forced end-users to learn the system by experimentation. The total functionality of the system is not immediately obvious and can remain undiscovered and unutilized. Moreover, the logic underlying critical processes, such as the triggering of recall notices or updating dental class status remains unspecified. The lack of documentation has also precluded improving the functionality of the system and implementing fixes. For example, necessary follow-up form letters that are not included in the present system must be externally word-processed for each individual. Additionally, hard-coding of the signature name on recall letters has resulted in a long since-transferred Director's name appearing on the recalls sent to members.

### **C. SCOPE**

The scope of this thesis is limited to the patient tracking and recall process. As noted previously, there are other business functions within the clinic, yet the patient tracking and recall process is the only information-intensive business function left up to local implementation that remains problematic.

#### **D. EVALUATION OF ALTERNATIVE SOLUTIONS**

Given that the problems with the existing patient tracking and recall system were deemed significant enough to warrant remediation, three alternative solutions were evaluated. The first alternative involved improving both the hardware and software associated with the mainframe-based system: replacing the modem connection with an on-line terminal, rewriting the software for increased functionality and ease of use, and documenting the system. The second and third alternatives involved designing and implementing a PC-based database management system to replace the existing mainframe application, the difference being whether a multi-user versus a single-user configuration should be developed. Multi-user capability was considered a "nice-to-have" feature that might be useful sometime in the future, yet it was clearly not a requirement for satisfactory performance of patient tracking and recall functions. Should a PC-based solution be selected, NRDC stipulated that it must be a compiled application that would not be subject to potential modification by inexperienced clinic staff.

##### **1. Cost Feasibility**

At the outset, NRDC made it clear that no funds were available to support improving the existing patient tracking and recall system. This limitation alone ruled-out upgrading the mainframe-based system—the cost of terminal acquisition and connection was prohibitive. Moreover, additional funds would be required to pay a technical expert to rewrite and document the mainframe software. Similarly, to exploit multi-user capability in a PC-based system would require additional funding to purchase required hardware. Hence, these two alternatives were eliminated from further consideration.

Designing and implementing a single-user, PC-based database management system was attractive from a cost standpoint. The development cost of such a system would be limited to the personal time and effort of the author. Further, appropriate development hardware (an IBM-compatible 80386 computer) and software (Foxpro 2.0 and Foxpro 2.0 Distribution Kit, a dBase-compatible development system with compiler) was already owned by the author. In addition, BDCM would not be required to purchase any additional hardware; their existing computer equipment could be used to evaluate prototypes and to install the final working system. BDCM staff were enthusiastic and committed to assisting with the development process.

## **2. Technical Feasibility**

BDCM owned a Zenith 286 PC and peripherals that were compatible with the foreseeable processor, memory, storage, and video requirements of a new PC-based application. Moreover, Foxpro 2.0 can create applications able to run on any IBM-compatible PC with a minimum of 512K of random access memory (RAM) [Ref. 1]. Preliminary tests of routine database operations (browse, index, sort) with a test database approximately the same size as that of the existing mainframe data file (2000 records with 15 fields per record) using Foxpro 2.0 were successful on the BDCM PC and demonstrated acceptable speed of operations with only 512K of RAM.

Future maintenance of the application would not be provided by the author. Discussion of this issue with both NRDC and BDCM indicated that this was acceptable to them. It was agreed that the application should run on any minimally configured IBM-compatible computer to enable portability and that support for a standard dot-matrix

printer should be provided. Program code and documentation would be included with the delivered application to support future maintenance. (NRDC and BDCM acknowledged that any future maintenance would require purchase of Foxpro 2.0 and the Foxpro 2.0 Distribution Kit. Intermediate-level dBase or Foxpro programming skills would also be required.)

### **3. Schedule Feasibility**

Based on the findings of the preliminary investigation, with detailed system analysis to begin 15 August, 1991, implementation of a fully operational PC-based system was scheduled for completion by 1 February, 1992. This left two months for correction of unforeseen problems before departure of the author.

## **II. REQUIREMENTS ANALYSIS**

This chapter discusses the requirements phase of project development. The purpose of this phase of development was twofold: (1) during this phase the specific data requirements (objects) that must be represented in the database were defined and (2) the application or functional requirements which support the database were outlined.

### **A. DATA REQUIREMENTS**

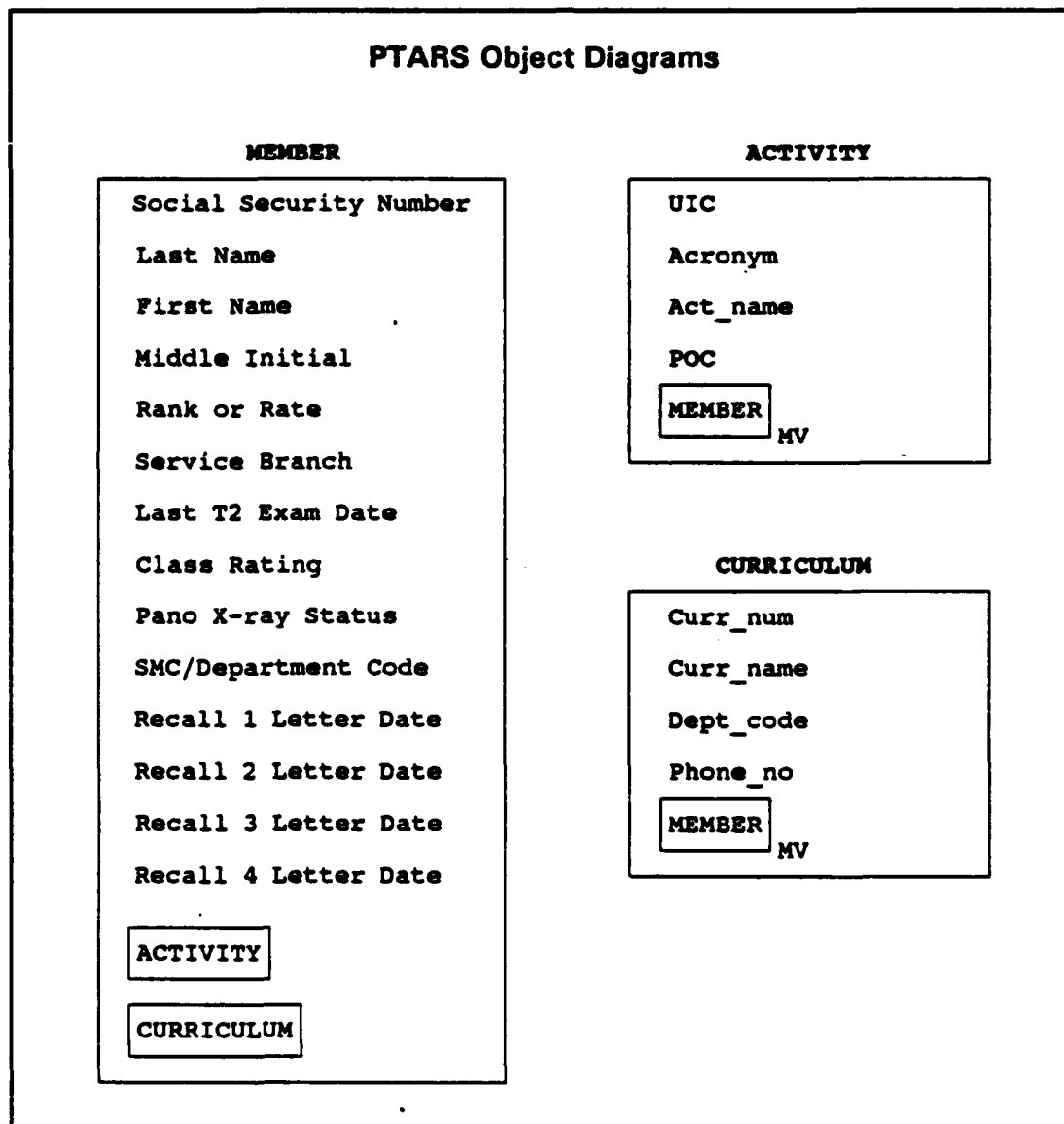
Initially, interviews were conducted with the BDCM Director and the dental staff responsible for hands-on use of the existing database. These interviews provided a general idea of the scope and objectives for an upgraded patient tracking and recall system. Working backwards from the existing application's outputs, preliminary object specifications and views were then developed and presented to the dental staff for feedback. Further discussions led to adjustments of the object specifications that satisfactorily met the clinic's needs.

#### **1. Object Development**

Important entities identified in the patient tracking and recall process are represented as the objects MEMBER, ACTIVITY, and CURRICULUM shown in Figure 1 below. Each of the objects possesses a collection of named properties. The properties listed within each diagram that are capitalized and within small boxes are themselves objects. The subscript "MV" denotes that the property is multi-valued. The MEMBER



object represents patients who have "checked-in" with the clinic upon arrival to NPS or an NPS tenant command. As can be seen in Figure 1, the ACTIVITY and CURRICULUM objects are properties of the MEMBER object. They associate each member with the properties of a specific activity and/or curriculum.



**Figure 1. Object Diagrams**

The ACTIVITY object represents each of the various commands served by BDCM. Note that the multi-valued MEMBER object is also a property of the ACTIVITY object. That is, a specific ACTIVITY can have multiple members.

The CURRICULUM object represents each of the many different curriculums offered at NPS. The MEMBER object is a multi-valued property of the CURRICULUM object; many students can belong to any given curriculum.

## **2. Domain Definition**

The object diagrams were used to summarize knowledge of the objects and to present it to the users in an unambiguous fashion. Following user validation of the object representations, domain definitions were established. The domain of a property is the set of all possible values a property can have. Each domain definition contains a physical description of the type of data (e.g., numeric versus character) and any value constraints. Each definition also describes the function or purpose of the property. Refer to Appendix A for detailed object specifications, including object and domain definitions.

## **B. APPLICATION REQUIREMENTS**

### **1. Processes**

Building upon the data requirements discussed in the previous section, major processes within the patient tracking and recall process were identified through discussions with BDCM end-users. A level-1 data flow diagram (DFD), shown in Figure

2 below, was developed as a basis for validating analyst understanding of the processes with end-users.

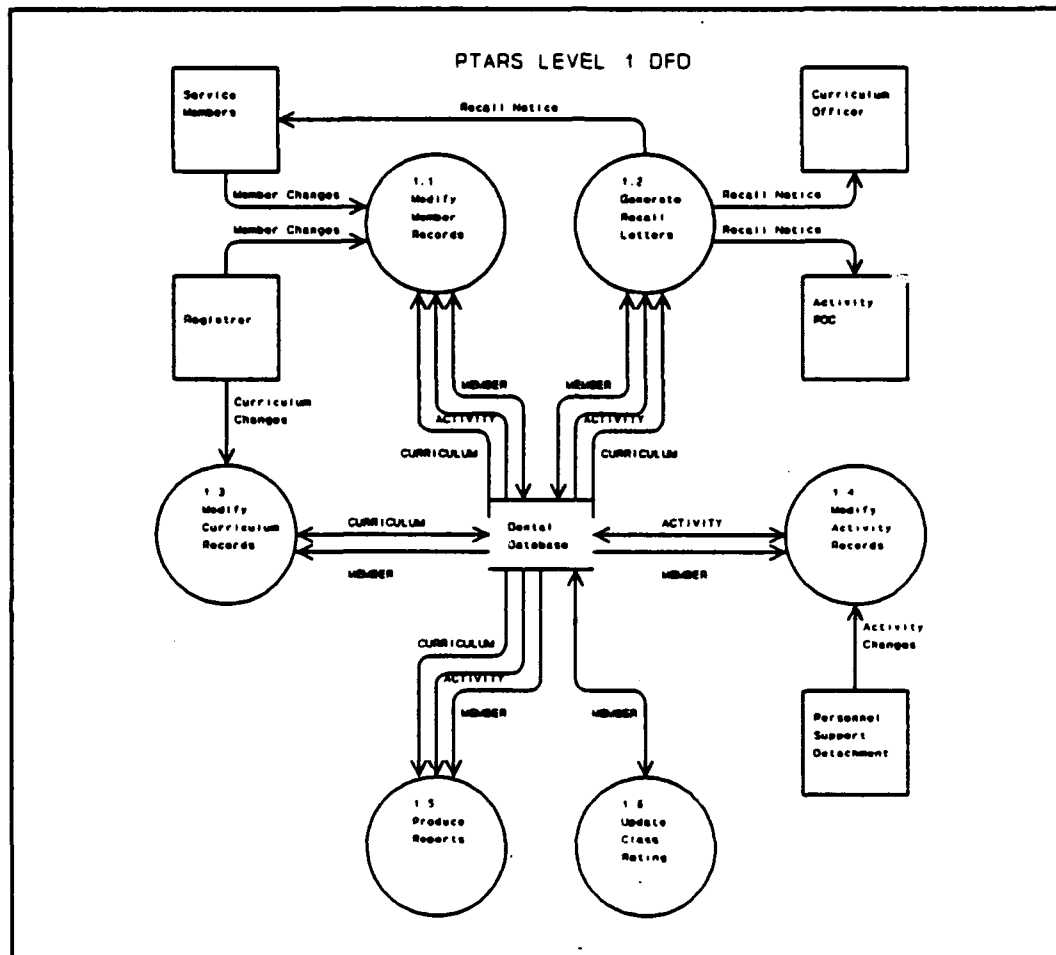


Figure 2. Level 1 Data Flow Diagram

Entities external to the system are shown in Figure 2 as square boxes and include Service Member, Registrar, Personnel Support Detachment (PSD), Curriculum Officer, and Activity Point of Contact. These entities are sources of data and/or recipients of system outputs (as indicated by the direction of the data flow arrows). The

numbered processes (denoted within the circles) summarize the operations involved in the overall patient tracking and recall process. Processes 1.1, 1.3, and 1.4 comprise the append, edit, and delete operations for the objects, MEMBER, CURRICULUM, and ACTIVITY. Process 1.2 involves the operations associated with generating and printing recall letters. An Operational Readiness report and various sorted rosters are produced in process 1.5. Member dental class is automatically updated to class 4 in process 1.6 for those individuals who have not had an annual examination within 12 months.

Following validation of the information presented by the level-1 DFD, a summary of system update, display, and control mechanisms was developed based on structured interviews with end-users. (See Appendix B.) During this process, information pertaining to each object was obtained that included inputs, outputs, processing notes, volume, and frequency. This information clarified what must be done within each object view.

Prototypes of forms, reports, recall letters, and menus were developed using Foxpro "power tools" (i.e., the Screen Builder and the Report Writer). These early prototypes clarified the expectations of end-users regarding the format of the user-interface and the display of information.

## **2. Operational and Administrative Requirements**

System operational and administrative requirements were identified through discussions with BDCM staff. Operational requirements for the system are listed below:

- Single-user, PC-based application, operable on an "as needed" basis by the BDCM Administrative Petty Officer and/or the BDCM Receptionist

- Portable/re-installable to different, compatible PC
- Extensive "Help" available on-line
- Database backup/restore utilities
- System date and time change utilities
- System-access password protection; password change capability
- Database packing capability

Although it was agreed that program maintenance would not be possible with the compiled application, Foxpro 2.0 program code would be given to BDCM. Hence, should maintenance become critical at some point, modification of the application would be possible with the purchase of Foxpro 2.0 and the Foxpro 2.0 Distribution Kit. A User's Manual (see Appendix C) would be supplied to provide structured guidance for system use, data security and integrity, database backups and restorations, and system optimization.

### **3. Environmental Requirements**

In an efficient system much of the member, activity, and curriculum data should be provided from a master database, shared with the Registrar and PSD. However, this is currently not possible since the data structure and hardware are not compatible. Until such time as the various NPS support entities/ADP-systems can communicate directly, it is incumbent upon the BDCM staff to take the initiative to obtain updated, hard-copy rosters from these two data sources as they become available.

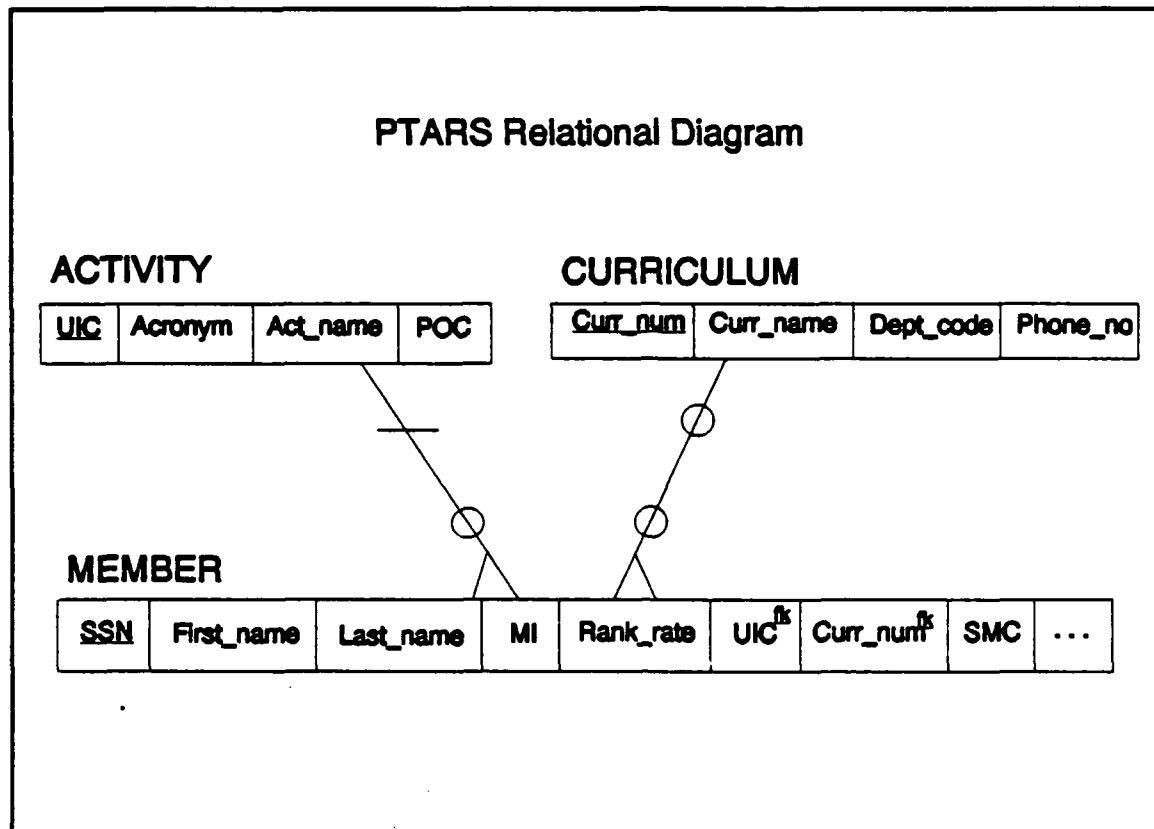
### **III. SYSTEM DESIGN**

In this chapter the two components of system design, logical database design and application design, are discussed. The objective of the design phase was to produce both the logical and physical details of the database and its application. Designing the logical database involved developing a "blueprint" of the database structure. From this blueprint a physical database was designed and the application was developed.

#### **A. LOGICAL DATABASE DESIGN**

##### **1. Object to Relation Transformations**

The design of the logical database was based on the relational database model [Ref. 2]. The objects MEMBER, ACTIVITY, and CURRICULUM, were transformed into a relational diagram. Figure 3, the relational diagram, shows the three relations that resulted: (1) the compound MEMBER object was transformed into the three relations MEMBER, ACTIVITY, and CURRICULUM; (2) the compound ACTIVITY object was transformed into the two relations MEMBER and ACTIVITY; and (3) the compound CURRICULUM object was transformed into the two relations MEMBER and CURRICULUM.



**Figure 3. Relational Diagram**

## 2. Relation Descriptions

Each of the three relations are reflections of the original objects with appropriate foreign keys included. Key data are denoted in Figure 3 by underlining. Foreign keys are denoted with the underlined superscript, <sup>fk</sup>. Summary descriptions of each of the relations are presented below. (Refer to Appendix D for detailed relation definitions.)

### MEMBER

Number of attributes: 15

Key attributes: Social-Security-Number (SSN)

Foreign keys: Unit-Identification-Code (UIC)  
Curriculum-Number

Relationships:           ACTIVITY to MEMBER; 1:N; Mandatory:Optional  
CURRICULUM to MEMBER; 1:N; Optional:Optional

#### **ACTIVITY**

Number of attributes: 4  
Key attributes:       UIC  
Foreign keys:       None  
Relationships:       ACTIVITY to MEMBER; 1:N; Mandatory:Optional

#### **CURRICULUM**

Number of attributes: 4  
Key attributes:       Curriculum-Number  
Foreign keys:       None  
Relationships:       CURRICULUM to MEMBER; 1:N; Mandatory:Optional

### **B. APPLICATION DESIGN**

The application is the interface between the user and the database. It contains various control mechanisms to prevent direct access to the database and to maintain the integrity of the database. A menu hierarchy was used to aid and control user interaction with the system. The menu-driven approach was employed because it enables inexperienced end-users to access and use the full functionality of a system faster than with a command-driven system. The menu hierarchy depicted in Figure 4 was derived from user requirements. The Append, Edit/View, and Delete/View sub-menus apply to a selected object database. All user-selectable operations flowed from Main Menu selections. Figure 5 shows the final look of the Main Menu and depicts the generic structure of all menus. Figure 6 provides a view of the form for editing/viewing an existing member record. Although specific fields differ across the various forms in the application, the same form "template" is used throughout the application. Appendix C,



the User's Manual, presents comprehensive graphics of application menus, reports, forms, recall letters, and screens.

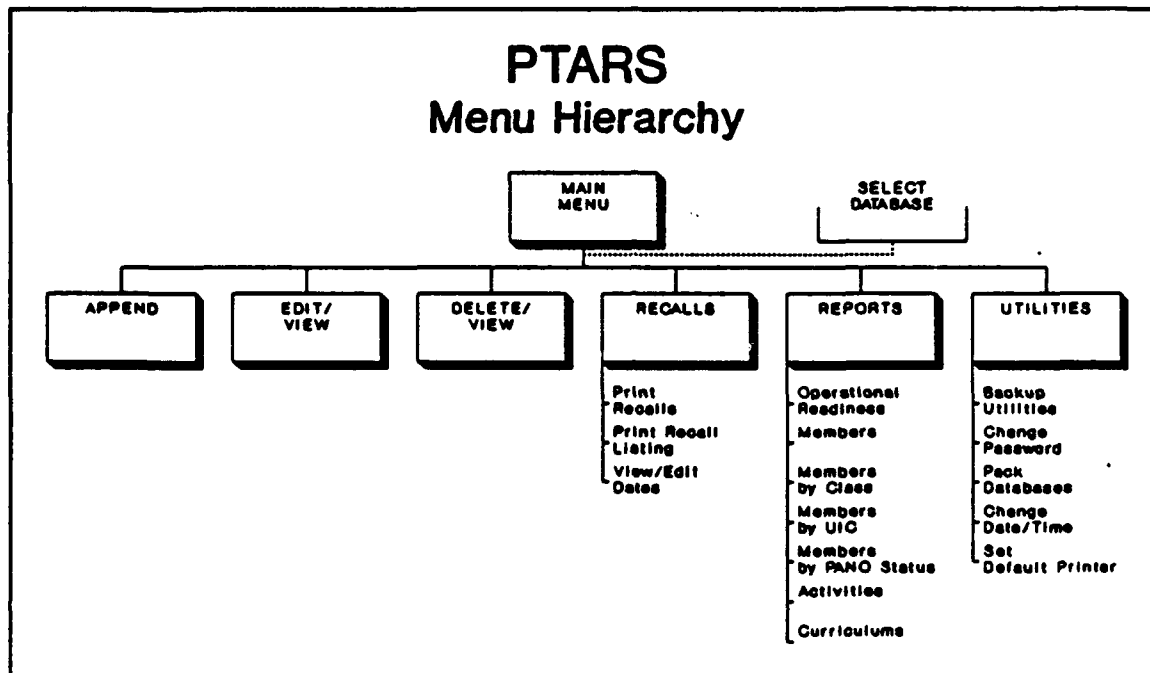


Figure 4. Menu Hierarchy

MEMBER ACTIVITY CURRICULUM DIRECTOR		11/28/92 12:00:00 am
<b>P T A S   M A I N   M E N U</b>		
<F1> for help <Alt+F1> for functions	0. Quit 1. Append 2. Edit/view 3. Delete/view 4. Recalls ... 5. reports ... 6. Select database 7. Utilities ...	
select : :		

Figure 5. Main Menu Screen

Record: 000013		<MEMBERS>		11/28/92 12:00:00 am	
<F1> for Help Member's SSN <b>123-45-6789</b>					
Last Name <b>Doherty</b>		First Name <b>Janet</b>		M.I. <b>[ ]</b>	
Rank/Rate <b>LT</b>	Service Branch <b>USN</b>	Last T2 Exam <b>11/21/90</b>	Class <b>3</b>		
Pano Status <b>GRN</b>					
UIC <b>01405</b>		NPS Student Curriculum Number <b>030</b>		SNC <b>1000</b>	
Dates of Previous Recall Letters Routed To Member					
Recall 1 11/21/91 MM/DD/YY	Recall 2 MM/DD/YY	Recall 3 MM/DD/YY	Recall 4 MM/DD/YY		
EDIT/VIEW: <E>dit <P>ind <G>ete <N>ext-record <P>rev-record <R>eturn					

Figure 6. MEMBER Edit/View Form

After establishing the menu hierarchy and obtaining user approval of report, form, recall letter, and screen prototypes, an integrated prototype of the application was developed. That is, a working model of the system was created but with incomplete

functionality [Ref. 3, 4]. End-user evaluations of the prototype's characteristics and operation were used to iteratively revise the model. This prototype was then expanded in functionality to become the final system. This approach was facilitated by Foxpro's project management capability for unifying and coordinating the separate elements of the application. Added advantage was obtained from the use of this approach in that end-users became intimately involved in the development process and actively influenced the look and functioning of the final system. Thus, by the time of implementation their expectations were satisfied and they were well-versed in the application's functioning.

Care was taken to establish consistency of function across modules with regard to form and menu design, messages, escape procedures, navigation keys, function-key use, and availability of on-line help. Moreover, as indicated in the object specifications (Appendix A), the range and format of data for most of the fields was carefully controlled.

#### **IV. SYSTEM IMPLEMENTATION**

System implementation was the final step of the development process. The primary objective was to build the fully functional physical application that satisfied the end-user. The physical database was constructed using a DBMS-specific methodology, Foxpro 2.0. It is compatible with the widely-used dBase DBMS language and has numerous language extensions. Moreover, as noted previously, the product provides a very efficient, windowed development environment that facilitates coding, compiling, running, and debugging from within an integrated interface.

During implementation, the prototype was expanded to include all modules fully integrated into an application with complete functionality. Appendix C, the User's Manual, provides documentation which details the final application's features and operations. Documented program code, procedure and token listings, and a token cross-reference listing are included in Appendix E.

Installation required converting the mainframe database and adding several data elements. Hence, the installation and transition to the new system took several days to complete. Primary user training was accomplished during the development process.

## **V. SUMMARY AND RECOMMENDATIONS**

### **A. SUMMARY**

The mainframe-based patient tracking and recall system was due for replacement. It was out-dated in its user interface, was unreliable to access, lacked adequate field validation checks, and required additional capabilities. The PTARS system designed and implemented during the course of this thesis addressed all of these deficiencies and included users actively in the development process. The system is user-friendly and includes all necessary functions internally to provide security, data integrity, and an intuitive operation.

### **B. RECOMMENDATIONS**

During the development process much thought was given to anticipating the needs of end-users. On-line, context-sensitive help was provided for all operations and fields; and confirmations, messages, and prompts were built into all operations that affected the content of the database. Nevertheless, it is still incumbent upon the user to make choices and take actions to protect the data and maintain the quality of unrestricted character fields.

Data security will be only as good as the user's attention to it. The password must be protected, the system must not be left running unattended, and regular backups to floppy disk must be made and stored to safety. All of these activities are ultimately left

up to the discretion of the user. Proper training and careful reading of the User's Manual should enhance end-user adherence to recommended practice.

Finally, NRDC currently provides PC hardware and software support to branch clinics. Upon request, a PC technical expert will troubleshoot problems with BDCM computer resources. The necessity of PCs in the branch clinics is acknowledged and some standard software is provided for an integrated dental information system. Yet, clinics are not provided the resources to protect their systems. For example, no user training is conducted regarding routine machine or data maintenance or security. This could develop into a significant problem in the event of a large data loss. NRDC should consider providing all branch clinics with reasonably efficient backup software, disk maintenance and data recovery software utilities, and the training to use them effectively.

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## APPENDIX A: OBJECT SPECIFICATIONS

### Object Definitions

#### MEMBER OBJECT

##### Descriptive name

Social Security Number

Last Name

First Name

Middle Initial

Rank or Rate

Service Branch

Last T2 Exam

Class Rating

Pano X-ray Status

SMC or Department Code

Recall Letter 1 Date

Recall Letter 2 Date

Recall Letter 3 Date

Recall Letter 4 Date

ACTIVITY; ACTIVITY object

CURRICULUM; CURRICULUM object

##### Domain name

SSN

Last\_name

First\_name

MI

Rank\_rate

Branch

Last\_T2

Class

Pano

SMC

Recall\_1

Recall\_2

Recall\_3

Recall\_4

#### ACTIVITY OBJECT

##### Descriptive name

Unit Identification Code

Unit Acronym

Activity Name

Point-of-Contact

MEMBER; MEMBER object; MV

##### Domain name

UIC

Acronym

Act\_name

POC

#### CURRICULUM OBJECT

##### Descriptive name

Curriculum Number

Curriculum Name

Department Code

Phone Number

MEMBER; MEMBER object; MV

##### Domain name

Curr\_num

Curr\_name

Dept\_code

Phone\_no



## Domain Definitions

**Acronym:**

Character (11)  
Abbreviated activity name

**Act\_name:**

Character (47)  
Official abbreviated name of an NPS tenant command served by BDCM

**Branch:**

Character (4)  
Abbreviation for member's service branch

**Class:**

Numeric (1), range 1-4  
Class rating assigned by dentist to each member

**Curr\_name:**

Character (46)  
NPS curriculum name

**Curr\_num:**

Character (3)  
Unique NPS curriculum number code

**Dept\_code:**

Character (2)  
Curriculum office NPS department code

**First\_name:**

Character (15)  
Member's first name

**Last\_name:**

Character (23)  
Member's last name

**Last\_T2:**

Date (8); Mask MM/DD/YY, where MM is month, DD is day, YY is year  
Last T2 exam date

**MI:**

Character (1)  
Member's middle initial

**Pano:**

Character (3)  
Member's pano x-ray status

**Rank\_rate:**

Character (5)

Member's rank or rate

**Recall\_1:**

Date (8); Mask MM/DD/YY, where MM is month, DD is day, YY is year

Recall letter 1 date

**Recall\_2:**

Date (8); Mask MM/DD/YY, where MM is month, DD is day, YY is year

Recall letter 2 date

**Recall\_3:**

Date (8); Mask MM/DD/YY, where MM is month, DD is day, YY is year

Recall letter 3 date

**Recall\_4:**

Date (8); Mask MM/DD/YY, where MM is month, DD is day, YY is year

Recall letter 4 date

**SMC:**

Character (4)

Member's student mail center number or staff department mail code

**SSN:**

Character (11); Mask NNN-NN-NNNN, where N are any digits

Unique member Social Security Number

**UIC:**

Character (6)

Unique Unit Identification Code of NPS tenant command

## **APPENDIX B: UPDATE, DISPLAY, AND CONTROL MECHANISMS**

### **I. Update Mechanisms**

#### **A. Append/Edit MEMBER data**

##### **1. Inputs**

- Initial member data received at physical check-in of member records to BDCM
- Member change data received on roster from PSD
- Member change data received on roster from Registrar
- MEMBER object instance from database
- ACTIVITY object instance from database
- CURRICULUM object instance from database
- System-date and time

##### **2. Outputs**

- New or modified MEMBER object instance in database
- Confirmation message on screen

##### **3. Processing notes**

- This function used for both new and current members
- All initial member data manually entered after review of member's dental record
- Student SMC number may not be available initially

##### **4. Volume**

- 225 Jun; 75 Feb/Jul; 250 Mar/Sep/Dec
- Seven per week on average after quarter start
- 275 edits per week on average

##### **5. Frequency**

- Six times per year for large batch; otherwise daily

#### **B. Delete MEMBER data**

##### **1. Inputs**

- Member takes physical custody of dental records upon detachment
- MEMBER objects in database

##### **2. Outputs**

- Confirmation notice on screen

##### **3. Processing notes**

- Backups of MEMBER data should be made prior to processing a batch of deletions

##### **4. Volume**

- 250 at end of each academic quarter
- Seven per week on average after quarter end

##### **5. Frequency**

- Four times per year for large batch; otherwise daily

#### **C. Append/Edit ACTIVITY data**

##### **1. Inputs**

- Activity data change from Personnel Support Detachment (PSD)
- ACTIVITY object instance from database

##### **2. Outputs**

- New or modified ACTIVITY object instance in database
- Confirmation message on screen

##### **3. Processing notes**

- This function will be seldom used since it will be triggered by the addition or modification of a generally stable client organization
- This function used for both new and current activities
- 4. Volume
  - Variable, approximately one instance every two years on the average
- 5. Frequency
  - Variable, approximately once every two years
- D. Delete ACTIVITY data
  1. Inputs
    - Activity data change from Personnel Support Detachment (PSD)
    - ACTIVITY object instance from database
  2. Outputs
    - Confirmation notice on screen
  3. Processing notes
    - This function will be seldom used since it will be triggered by the elimination of a generally stable client organization
    - Backup of ACTIVITY data should be made prior to deletion
  4. Volume
    - Variable, approximately one instance every four years on the average
  5. Frequency
    - Variable, approximately once every four years
- E. Append/Edit CURRICULUM data
  1. Inputs
    - Curriculum data change from Registrar
    - CURRICULUM object instance from database
  2. Outputs
    - New or modified CURRICULUM object instance
    - Confirmation message on screen
  3. Processing notes
    - This function will be seldom used since it will be triggered by the addition or modification of generally stable curriculums
    - This function used for both new and current curriculums
  4. Volume
    - Variable, approximately two instances per year on the average
  5. Frequency
    - Variable, approximately twice per year prior to new student class
- F. Delete CURRICULUM data
  1. Inputs
    - Curriculum data change from Registrar
    - CURRICULUM object instance from database
  2. Outputs
    - Confirmation message on screen
  3. Processing notes
    - This function will be seldom used since it will be triggered by the elimination of a generally stable curriculum
    - Backup of curriculum data should be made prior to deletion
  4. Volume
    - Variable, approximately one instance every five years on the average
  5. Frequency
    - Variable, approximately once every five years

## II. Display Mechanisms

### A. Query on MEMBER

1. Output description
  - Form showing all data for a member to screen
2. Source data
  - MEMBER object
  - Member SSN or name keyed by user
3. Processing notes
  - Used by Administrative Petty Officer or Receptionist
4. Volume
  - Five per week
5. Frequency
  - Daily

### B. Recall letter 1

1. Output description
  - Memorandum mailed to member
  - New or modified MEMBER object instance in database
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user. It creates recall letter one for all members whose last T2 exam was more than 10 months prior to the system-date and for whom recall letter one was not previously produced
  - This process inserts system-date as Recall-Ltr1-Date when conditions above exist
4. Volume
  - 160 monthly
5. Frequency
  - End of every month

### C. Recall letter 2

1. Output description
  - Memorandum mailed to member
  - New or modified MEMBER object instance in database
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user. It creates recall letter two for all members whose last T2 exam was more than 11 months prior to the system-date, for whom recall letter one was produced, and for whom recall letter two was not previously produced
  - This process inserts system-date as Recall-Ltr2-Date when conditions above exist
4. Volume
  - 100 monthly
5. Frequency
  - End of every month

### D. Recall letter 3

1. Output description
  - Letter mailed to member
  - New or modified MEMBER object instance in database

2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user. It produces recall letter three for all members whose last T2 exam was more than 12 months prior to the system-date, for whom recall letter two was produced, and for whom recall letter three was not previously produced
  - This process inserts system-date as Recall-Ltr2-Date when conditions above exist
4. Volume
  - 30 monthly
5. Frequency
  - End of every month
- E. Recall letter 4
  1. Output description
    - Letter mailed to Curriculum Officer for student members and Activity POC for all other members
    - New or modified MEMBER object instance in database
  2. Source data
    - MEMBER object
    - ACTIVITY object
    - CURRICULUM object
    - System-date
  3. Processing notes
    - This process is initiated from a menu by the user. It produces recall letter four for all members whose last T2 exam was more than 13 months prior to the system-date, for whom recall letter three was produced, and for whom recall letter four was not previously produced
    - This process inserts system-date as Recall-Ltr4-Date when conditions above exist
    - Student members uniquely belong to UIC 31405
  4. Volume
    - 3 monthly
  5. Frequency
    - End of every month
- F. Operational Readiness Report
  1. Output description
    - Screen display of summary count and percent of patient load for all members by class
    - Screen display of summary count and percent of all patients in Pano x-ray status categories
  2. Source data
    - MEMBER object
    - System-date
  3. Processing notes
    - This process is initiated from a menu by the user. It creates a summary report of the number and percentage of all members in each of the four different dental classes. The report can be optionally printed.
  4. Volume
    - 1 monthly
  5. Frequency
    - End of every month

**G. Member Roster**

1. Output description
  - Printed roster of all members sorted alphabetically or by SSN
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user.
4. Volume
  - 1 monthly
5. Frequency
  - End of every month

**H. Member Roster by Class**

1. Output description
  - Printed roster of members sorted alphabetically or by SSN; available for all or for specified class
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user.
4. Volume
  - 1 monthly
5. Frequency
  - End of every month

**I. Member Roster by UIC**

1. Output description
  - Printed roster of all members sorted alphabetically or by SSN
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user.
4. Volume
  - 1 monthly
5. Frequency
  - End of every month

**J. Member Roster by Pano X-ray status**

1. Output description
  - Printed roster of members sorted alphabetically or by SSN; available for all members or for specified Pano status
2. Source data
  - MEMBER object
  - System-date
3. Processing notes
  - This process is initiated from a menu by the user.
4. Volume
  - 1 monthly
5. Frequency

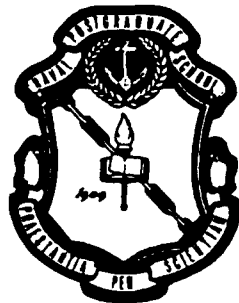
- End of every month
- K. Activities Listing
  1. Output description
    - Printed roster of Activities sorted by UIC
  2. Source data
    - ACTIVITY object
    - System-date
  3. Processing notes
    - This process is initiated from a menu by the user.
  4. Volume
    - 1 monthly
  5. Frequency
    - End of every month
- L. Curriculums Listing
  1. Output description
    - Printed roster of Curriculums sorted by curriculum number
  2. Source data
    - CURRICULUM object
    - System-date
  3. Processing notes
    - This process is initiated from a menu by the user.
  4. Volume
    - 1 monthly
  5. Frequency
    - End of every month
- III. Control Mechanisms
  - A. Access to the system is protected by a password known only by the Administrative Petty Officer and the Receptionist
  - B. The system is limited to use by one person at a time.
  - C. Monthly validations of various member data are accomplished using rosters obtained from PSD and the Registrar



**APPENDIX C: USER'S MANUAL**

# **NPS DENTAL CLINIC PATIENT TRACKING & RECALL SYSTEM**

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## **CONTENTS**

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<b><i>Introduction</i></b>	<b><i>1</i></b>
Features overview . . . . .	1
Typographical conventions . . . . .	2
 <b><i>Chapter 1 Getting started</i></b>	 <b><i>3</i></b>
System requirements . . . . .	3
Installation . . . . .	4
Installation overview . . . . .	4
Installing PTARS . . . . .	4
Re-installing PTARS . . . . .	5
Starting PTARS . . . . .	6
Updating member CLASS . . . . .	6
Security . . . . .	6
Creating a start-up batch file . . . . .	7
 <b><i>Chapter 2 Getting around</i></b>	 <b><i>9</i></b>
Navigation/Activation keys . . . . .	9
Function keys . . . . .	9
Using on-line Help . . . . .	10
Menus overview . . . . .	11
Main Menu . . . . .	12
Selecting a database . . . . .	12
Exiting PTARS . . . . .	13
 <b><i>Chapter 3 Database updating</i></b>	 <b><i>15</i></b>
Appending records . . . . .	15
Editing/viewing records . . . . .	16
Deleting/viewing records . . . . .	19
 <b><i>Chapter 4 Recalls</i></b>	 <b><i>21</i></b>
Printing recalls . . . . .	22
Printing recalls lists . . . . .	27
Viewing/editing recall dates . . . . .	27

---

<b><i>Chapter 5 Reports</i></b>	<b><i>29</i></b>
Operational readiness . . . . .	29
Rosters . . . . .	30
<b><i>Chapter 6 Utilities</i></b>	<b><i>33</i></b>
Backup utilities . . . . .	33
Backing up database(s) . . . . .	34
Listing files . . . . .	35
Formatting a floppy disk . . . . .	35
Restoring backup(s) . . . . .	35
Changing the password . . . . .	36
Packing the database(s) . . . . .	37
Changing the date or time . . . . .	37
Selecting the default printer . . . . .	37
<b><i>Appendix A Optimizing PTARS</i></b>	<b><i>39</i></b>
Disk defrag/compress . . . . .	39
Memory . . . . .	39
Conventional memory . . . . .	39
Expanded memory . . . . .	40
Extended memory . . . . .	40
Config.sys . . . . .	41
Pack the database(s) . . . . .	41
<b><i>Appendix B File definitions</i></b>	<b><i>43</i></b>
<b><i>Appendix C Database specifications</i></b>	<b><i>45</i></b>

## ***Introduction***

Welcome to the Naval Postgraduate School Dental Clinic (NPSDC) Patient Tracking and Recall System (PTARS). This database application was developed to provide an in-house, PC-based capability for NPSDC to maintain the patient data necessary to track and recall patients for annual exams and to produce operational readiness statistics. The system provides fast, dependable access to member records and automates the recall process.

PTARS was designed based on extensive interviews with the NPSDC staff to identify clinic requirements. Prototypes of the system were iteratively developed and demonstrated to ensure that clinic end-users were fully satisfied with the final system specifications. A primary design objective was to develop an application that was very user-friendly. Hence, you will be able to use the system productively with only a minimum amount of familiarization time. Please take a few minutes now to review this User's Manual.

### **Features overview**

PTARS employs four database files that are directly accessible to user modification: MEMBERS.DBF, ACTIVITY.DBF, CURRICUL.DBF, and DIRECTOR.DBF. MEMBERS.DBF contains the information pertinent to each patient. The files ACTIVITY.DBF and CURRICUL.DBF are used for locating patients and for printing recall letter addresses. ACTIVITY.DBF contains information specific to each UIC served by NPSDC and CURRICUL.DBF contains information specific to each NPS student curriculum. DIRECTOR.DBF contains the name of the current NPSDC Director for placement into the signature line of recall letters.

The application provides a series of simple menus and sub-menus from which to choose its various options. You will be able to view, append, update, and delete Member, Activity, Curriculum, and Director data using screen forms with built-in error-checking routines for each action or data entry. You will also be able to print special reports, sorted database listings, and recall letters. Additional features include but are not limited to:

- Password controlled access to PTARS; changeable password
- Automatic updating of member treatment class status

- Context-sensitive help
- System information display
- Continuous date and time display
- Automatic determination of appropriate recall letters to print
- Backup database(s) to hard disk or floppy disk; restore backup(s)
- Format floppy disk from within application
- List files on hard disk or floppy disk
- Automatic reminders for database backup (if more than one month since last backup) and database pack (if more than 10% of records marked for deletion)

## Typographical conventions

The following typographical conventions are used in this manual:

**Input** Anything that you type is in the Courier typeface, for example,  
a:\setup <Enter>

**Keys** Keys to be pressed are represented like this:  
<Esc> <Enter> <F1> {C}

Press both keys simultaneously when a "+" symbol is present, as in:  
<Alt+F1>

**Direction** Cursor movement keys are indicated as:  
<PgUp> <PgDn> <Arrows>



## ***Getting started***

This chapter contains all the information you need to install and run PTARS. It also discusses the various settings that you can change.

It contains the following sections:

- System requirements
- Installation
- Starting PTARS
- Creating a batch file

### **System requirements**

PTARS requires the following hardware and software:

- An IBM compatible computer with at least 512K of random access memory (RAM) (640K of RAM strongly recommended)
- One floppy disk and one hard disk drive (with at least 3 megabytes of space available)
- Version 2.0 or later of DOS
- A CONFIG.SYS file in your root directory with a Files=25 (or greater) statement
- An EGA or VGA video adapter
- An Epson E/F/J/RX/LQ compatible or IBM Proprinter compatible dot-matrix printer

Additional requirements:

- To take advantage of Expanded memory support, you need an expanded memory card that is hardware and software compatible with the Lotus-Intel-Microsoft standard 4.0 or later (LIM 4.0 EMS). If you have an Intel 80386 or 80486 processor you can also use extended memory and a software expanded memory emulator program. PTARS can use 64K

of expanded memory as additional general purpose memory and any remaining expanded memory to speed up file I/O.

- If expanded memory is not available but the computer has extended memory, PTARS can be configured during installation to use 512K of the available extended memory for a disk cache to speed up file I/O.
- Double-copy paper to automatically make copies of recall letters. Since a copy of Recall 3 is identified as an enclosure to Recall 4, a copy of Recall 3 should be available before routing Recall 4. An alternative to double-copy paper would be making a copy of all Recall 3 letters after printing; then filing them in the event a Recall 4 was necessary for the same individual(s).

## **Installation**

### **Installation overview**

You have been provided with four numbered floppy disks. Disks 1 to 3 contain the files necessary to install and run PTARS. Disk 4 contains the initial database files that were current at the time of program delivery (i.e., MEMBERS.DBF, ACTIVITY.DBF, CURRICUL.DBF, and DIRECTOR.DBF). There are two steps to installing PTARS:

- **Make a backup and install the program.** Before you do anything else, copy the original disks and store them in a safe place. Then, use your copies of the original disks and run the Setup program to install PTARS on your hard disk.
- **Choose the default printer.** Before you print for the first time, you should select the default printer emulation from the Utilities Menu.

### **Installing PTARS**

Refer to your computer's documentation (or ask your local computer guru) to determine whether your computer has expanded memory, disk caching hardware or software, and/or extended memory. You will be queried during the installation process regarding your computer's configuration. Note that you need at least 3 megabytes of available hard disk space before you begin.

One cautionary note before beginning your installation. PTARS was designed to run using only one computer at a time. Although in the future it may be tempting to install PTARS on a second computer, **avoid installing PTARS on more than one computer.** Because the separate installations can not communicate, there is no built-in, guaranteed way for the separate databases to maintain the same up-to-date data. Although you could

theoretically transfer data using floppy disks, almost assuredly over time some data would exist in one machine but not the other, and vice-versa.

The steps for installing PTARS are as follows:

1. Insert the PTARS disk #1 in drive A.
2. At the DOS prompt, type `a:\setup`. The Setup program will start.
3. When prompted by Setup, specify the disk where you want to install PTARS (e.g., c). Setup creates the subdirectory "\PTARS" on the hard disk specified and copies the program files and initial database files to it. Setup prompts you to insert each disk when necessary.
4. After copying, assembling, and un-compressing all the files from the installation disks, Setup queries whether your computer has expanded memory and/or a disk cache. Respond `y` or `n`, as appropriate. If you respond negatively, Setup queries whether you have extended memory. Again, respond as appropriate. This process determines how PTARS is configured for start-up.
5. When the installation is complete, Setup presents a screen with installation notes. Read the notes. Setup then queries whether you want to start PTARS. If you respond affirmatively, PTARS loads immediately.
6. Before printing from PTARS for the first time, select the default printer from the Utilities Menu. Refer to your printer's documentation to determine which emulation (Epson E/F/J/RX/LQ or IBM Proprinter) your printer uses. The default printer emulation is initially Epson.
7. Align the paper in your printer. Test the margin adjustments of your paper by printing the Operational Readiness Report from the Reports Menu. The top of your paper should be set in your printer so that one blank line exists at the top of the printed report. Likewise, the paper should be set so that one blank space exists to the left of the header statement "FOR OFFICIAL USE ONLY". If your paper is adjusted in the printer to satisfy these conditions, all printing from PTARS will be formatted properly.

### **Re-installing PTARS**

There are two instances when you may want to re-install PTARS: 1) when there is some problem with any of the program files or 2) the computer has been modified with regard to expanded memory, a disk cache, or extended memory.



The re-install process is exactly the same as the initial installation with two exceptions. Setup attempts to determine if PTARS has been installed previously. If Setup detects that this is a re-installation you will be presented with a listing of existing database files in the "\PTARS" subdirectory and a re-installation note on screen. You can elect to continue or quit the re-installation at this time. If you elect to continue, you will be queried regarding which, if any, of the initial database files you may want to re-install. Note that if you have been using PTARS for any period of time you will probably elect not to re-install any of the initial database files. This is because they will be out of date. Use the "Restore backup(s)" option in the Backup Utilities Menu to restore your most recent data from floppy disk, if necessary.

## Starting PTARS

If necessary, change to the "\PTARS" subdirectory on the drive where you installed PTARS (e.g., at the DOS prompt, type `cd \ptars`). Then type `ptars` and press <Enter>. A logo screen will appear and pause briefly. (You can eliminate the pause by pressing any key during the logo display.) Following the pause, the PTARS Access Screen appears and you are requested to enter the password. The initial password to use is "zyxabc". You will be given up to three attempts to enter the correct password. After a third failure, PTARS shuts down.

After correctly entering the password, you will be queried whether the system date and time are correct. If you respond negatively, you are prompted to enter the correct date and/or time according to the format displayed.

### Updating member CLASS

When the system date and time are correct, PTARS updates each member's dental CLASS rating. CLASS ratings of "1", "2", or "3" are assigned to members by an examining dentist. A CLASS rating of "4" indicates simply that the member is due for his/her mandatory annual dental examination. PTARS scans each record in the MEMBERS.DBF database file and checks to see if the LAST\_T2 date is more than 12 months prior to the current system date. If so, it replaces the existing CLASS rating with "4". After updating member CLASS, PTARS displays the Main Menu.

### Security

It is *strongly* recommended that the default password be changed after installing the PTARS program. Your data is extremely important. Inadvertent or deliberate tampering with your data by an unauthorized person can only be prevented by taking security precautions (*and* taking them seriously). In addition to keeping a secure password, it is very important that you do not leave PTARS running unattended. The temptation to do

so, however, will be great. Making regular backups of your data to floppy disk and putting them in a safe place is probably the best way to ensure against loss of data due to any cause.

#### **Creating a start-up batch file**

A DOS batch file can be created that will enable you to start PTARS at any time regardless of what directory you may currently be in, without having to type additional DOS commands. Use a text editor (or a word processor mode that does not insert hidden formatting codes) to create a batch file like the example below. The example batch file assumes that you have installed PTARS to the C drive.

```
C:
CD\PTARS
PTARS
```

When the batch file is complete, name it "PTARS.BAT" and place it in your root directory or any directory that is in your DOS path. Henceforth, simply type PTARS to load the PTARS program from any location. See any DOS reference for terminology assistance.





## Getting around

This chapter contains the information you need to navigate the menus, forms, and fields of PTARS. It covers:

- Navigation/Action keys
- Function keys
- Using on-line Help
- Menu overview
- Main menu
- Exiting PTARS

### Navigation/Action keys

Each PTARS screen shows the available commands or options. The following keys let you move around a screen, between or within fields, or perform various generic actions:

<b><u>Press:</u></b>	<b><u>To:</u></b>
<Arrows>	move up or down one line; move left or right one character or screen
<PgUp>/<PgDn>	display previous or next screen of a multiple records screen
<Home>	move to the start of a multiple records screen or input field
<End>	move to the end of a multiple records screen or input field
<Backspace>	delete character to left; move back one input field
<Return>	accept an entry; move to next field
<Insert>	toggle insert/typeover mode
<Del>	delete a character or record
<Esc>	cancel the current task

### Function keys

Function keys <F1> through <F4> are assigned specific actions as described below. Pressing <Alt+F1> (pressing both keys simultaneously) at any time presents a popup reminder list of the functions available. Functions are activated by pressing the assigned

function key or selecting the function from the popup list. Functions are available at all times, regardless of the current activity. The functions available are:

- Help <F1>** Context-sensitive help window. See the next section, "Using on-line Help".
- Calendar <F2>** Pops-up a monthly Calendar display. It shows the current month in row and column form with the current day highlighted. You can move forward or backward in months by pressing <PgUp> or <PgDn>, and in years by pressing <Ctrl-PgUp> or <Ctrl-PgDn>, respectively. To get back to the current date, press {T}. As with almost all operations in PTARS, press <Esc> to exit.
- Poptris <F3>** A Tetris-like diversion. The object is to fill the rectangular field with the falling objects from the bottom up without leaving any open spaces. Use the numeric keypad arrows to position falling objects within the field. Pressing the number 5 key causes the shape of the falling object to change. It can be pressed repeatedly to cycle the shape of the falling object. Pressing the ↓ arrow key causes the falling object to land immediately, hence, speeding up the activity. Additional commands/functions are displayed on-screen. Poptris code has been included by permission of Gerald F. Garcia.
- About PTARS <F4>** A window containing system environment information. It includes information on the operating system, computer hardware, RAM, and disk space.

## Using on-line Help

On-line Help is available at all times by pressing <F1>. Help is "context-sensitive" since the Help Topic details initially displayed apply to the current PTARS screen. When the ‡ symbol is present in the topic box, you can scroll down or up through the Help window to view additional text using the ↓ or ↑ arrow keys.

As shown in Figure 1, the Help window consists of two panels—one lists Help Topics and the other displays details about each Topic. At the bottom of the Topics list all fields in the various databases are identified with a " ~ " prefix and are defined. Commands available in Help are described below:

- **Topics** • This provides a list of Topics available in the Help system. To select a Topic you can: 1) use the arrow keys to scroll through the Topics

to find the one you want or 2) type a letter or series of letters to select the first Topic beginning with those letter(s). To see details about a Topic, select the Topic and press <Return>.

- <Next>** This selects Help details for the next Topic in the help file list.
- <Previous>** This selects Help details for the prior Topic in the help file list.
- <Look up>** Enables you to find the closest Topic match to a word that you highlight within Help details. When you highlight a word in the Help text, the <Look up> function becomes available. You highlight a word by placing the cursor at the first letter in a word using the ← and → arrow keys. Then press <Shift+→> to highlight the word.
- See Also** This lists Help Topics that may be of interest related to the current Topic.
- <Esc>** Exits Help.

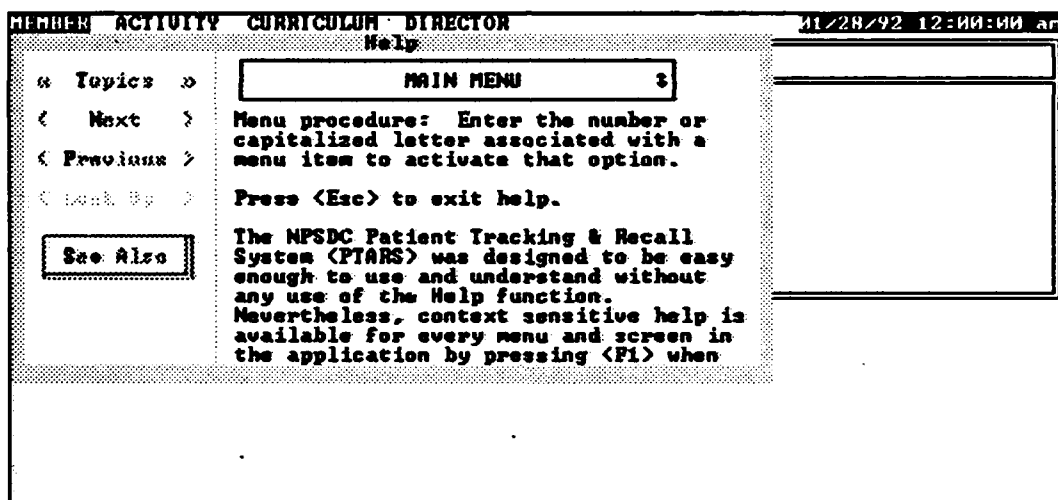


Figure 1. Help window appearing over Main Menu.

## Menus overview

PTARS is a "menu-driven" system. All operations are activated by selecting options from full-screen menus, from sub-menus located at the bottom of the screen, or from pop-up menus. An option can be selected on all menus by pressing the highlighted (and capitalized) letter associated with the option. On full-screen menus the number of the menu option will also activate the option. On popup menus you can also scroll to the

desired option and press <Enter> to activate the option. Figure 2 below provides a graphical view of the major menu operations within PTARS.

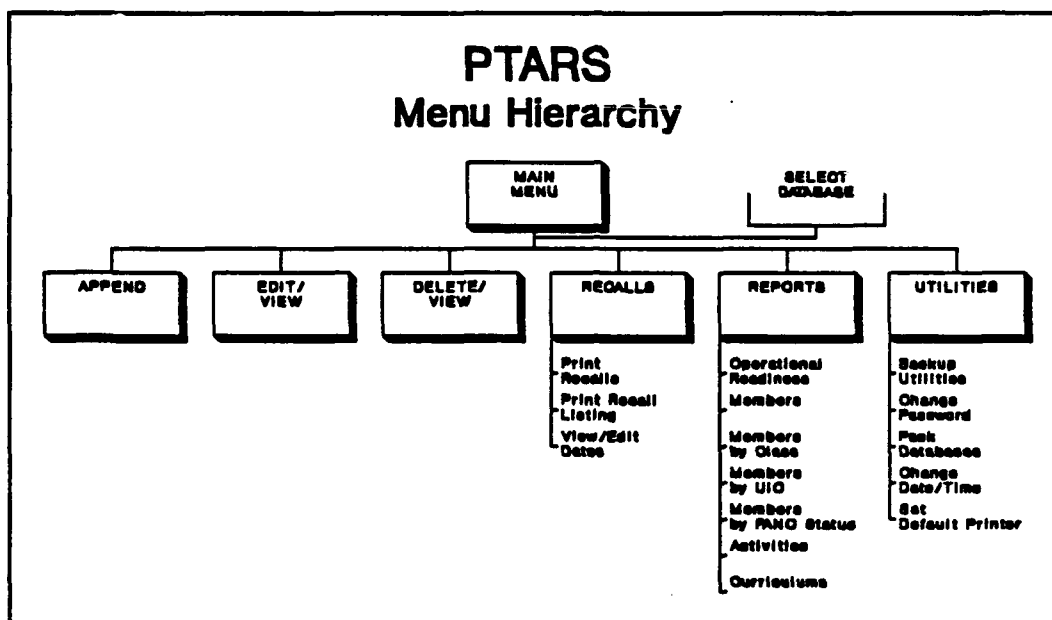


Figure 2. PTARS menu hierarchy.

## Main Menu

After updating member CLASS, PTARS displays the Main Menu, as shown in Figure 3 on the next page. Each screen in PTARS continuously displays the system date and time in the upper right corner.

### Selecting a database

In the upper left corner of the Main Menu the four databases of interest are identified. The active database is highlighted and blinking. By default, Members is the initially active database. The Main Menu options "Append", "Edit/view", and "Delete/view" apply only to the active database. A different database can be made active by choosing the option, "Select database", and then selecting the desired database from the popup selection list.

Exiting PTARS is discussed in the following sub-section. The remaining Main Menu options are covered in detail in subsequent chapters.

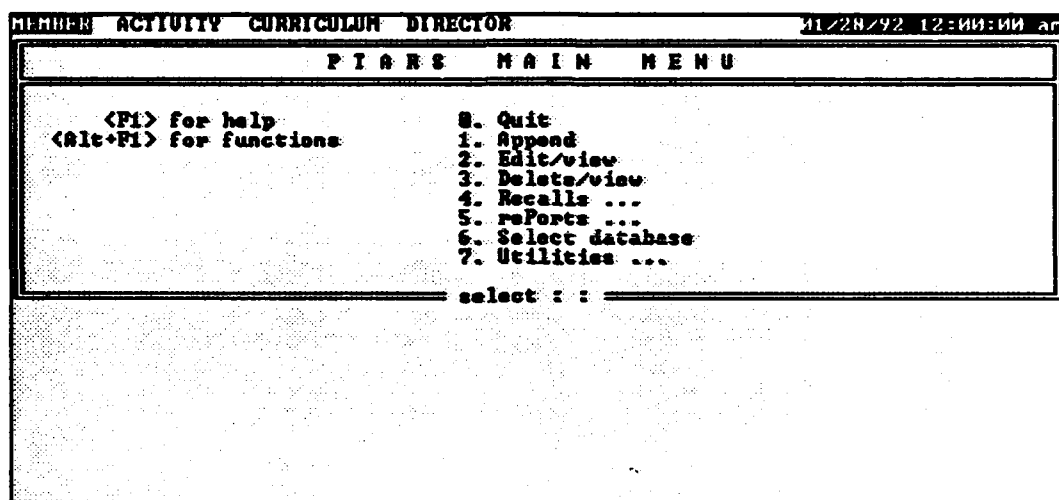


Figure 3. PTARS Main Menu.

### **Exiting PTARS**

It is very important that you exit (quit) PTARS using the Main Menu "Quit" option. If you reboot the computer with <Ctrl+Alt+Del> or shut the power off without first quitting properly, any databases which are in use at the time are vulnerable to damage. Hence, it is essential that you exit only by using the Main Menu "Quit" option.

When quitting, several things happen before the system shuts down. First, PTARS checks to see if it has been more than one month since MEMBERS.DBF has been backed-up to a floppy disk. If so, a reminder message pops-up on screen and you are given the option to perform a backup. If you choose to perform a backup, PTARS switches to the Backup Utilities Menu where you can perform your backup operations and quit when you are finished.

Next, PTARS checks to see if more than 10% of the records in MEMBERS.DBF have been marked for deletion. If so, a message pops-up and you are queried whether you want to "pack" the database. See Chapter 6 for details on packing the database.

Finally, before shutting down, PTARS queries whether you want to back-up the databases to the hard disk. This allows you to save a second copy of your session's work on the hard disk. See Chapter 6 for further coverage of backing-up.







## ***Database updating***

This chapter contains the information necessary for updating the databases by appending, editing, or deleting records. Several example screens will be shown to preview the look of PTARS when working with its various modes.

### **Appending Records**

Select the "Append" option from the Main Menu to append records. Appending records involves adding new records to a database. New records can be appended to MEMBERS.DBF, ACTIVITY.DBF, and CURRICUL.DBF. Unlike the foregoing three databases, DIRECTOR.DBF contains only one record. This record contains the name of the current clinic director and must always be present. Hence, it can only be edited.

As discussed in Chapter 2, PTARS starts by default with MEMBERS.DBF as the active database. You can select a different database from the Main Menu option "Select Database". To append records, press {A} from the Main Menu. A blank form will appear, ready to receive new data. You can abort from appending by pressing <Esc> and the record will not be saved.

When appending a record almost all fields require an entry. If a field is left blank and <Enter> is pressed, either a warning will appear stating that an entry is required or a popup list of valid field entries will appear. When a popup list appears, scroll to the desired field entry and press <Enter> to insert the entry into the form. Figure 4 shows the Append data entry form for Members.

If the member is an NPS student (i.e., UIC = "31405"), a field for Curriculum Number and SMC (Student Mail Center number) will appear following UIC. Alternatively, if the member is a non-student, a field for Activity Department Code will appear. Enter data into these fields as appropriate.

As a reminder, if you have any doubts regarding the contents of a certain field, be sure to utilize the Help function. Each field in all the databases is described in the Topics section of Help. Field names are prefixed with the "~" symbol and are located at the bottom of the scrollable Help Topics list.

Record: 001001		<MEMBERS>		=BLANK=		11/28/92 12:00:00 am	
<F1> for Help Member's SSN: [REDACTED]							
Last Name [REDACTED]		First Name [REDACTED]		M.I. [REDACTED]			
Rank/Rate [REDACTED]		Service Branch [REDACTED]		Last T2 Exam [REDACTED]		Class [REDACTED]	
Pave Status [REDACTED]				MM/DD/YY			
UIC [REDACTED]							
APPEND: Press <Esc> to abort							

Figure 4. Append record form for Members in append mode.

After completing the data entry for a new record or after aborting an append, a sub-menu will appear at the bottom of the screen with several options:

<Return>:add-another    {E}dit    {F}inished    <Del>

Pressing <Return> brings up a blank form for appending another new record. Pressing {E}dit allows editing of the currently displayed record. Selecting {F}inished appends the record (if completely entered and not marked for deletion) and returns you to the Main Menu. Pressing <Del> toggles between deleting and saving the current record. For example, assume you discover an error in a record that you have just entered and you want to delete it so that you can get the correct info later and re-enter it. Press <Del> to delete it. This allows you to then press <Enter> to keep entering new records without saving the erroneous one. When a record is "Deleted" a status indicator at the top of the screen says " \*Deleted\* ". In the next section, forms for editing each of the databases will be displayed. The forms look very similar to the forms for appending data.

## Editing/viewing records

The "Edit/view" option of the Main Menu allows you to edit records in the active database. Editing is performed with one record displayed at a time. This option also provides a means to view all the data in a record of the active database on a single screen.

As can be seen in Figure 5, the Edit/view form for Members is very similar to the Append form for Members. The difference is that the sub-menu of options available is more extensive and that additional information is shown on the form. In the lower

portion of the Edit Members form the dates of recall letters previously printed to the Member are displayed. This information can not be edited from the Edit/view screen but is for viewing only. Editing of recall dates will be discussed in Chapter 4.

Record: 000013		<MEMBERS>		11/28/92 12:00:00 am													
<F1> for Help																	
Member's SSN 123-45-6789																	
Last Name Doherty		First Name Janet		M.I. [ ]													
Rank/Rate [ ]		Service Branch [ ]		Last T2 Exam 11/21/91													
Panel Status [ ]				MM/DD/YY													
UIC 01495		NPS Student Curriculum Number 000		SMC 0000													
<p align="center">Dates of Previous Recall Letters Routed To Member</p> <table border="1"> <thead> <tr> <th>Recall 1</th> <th>Recall 2</th> <th>Recall 3</th> <th>Recall 4</th> </tr> </thead> <tbody> <tr> <td>11/21/91</td> <td></td> <td></td> <td></td> </tr> <tr> <td>MM/DD/YY</td> <td>MM/DD/YY</td> <td>MM/DD/YY</td> <td>MM/DD/YY</td> </tr> </tbody> </table>						Recall 1	Recall 2	Recall 3	Recall 4	11/21/91				MM/DD/YY	MM/DD/YY	MM/DD/YY	MM/DD/YY
Recall 1	Recall 2	Recall 3	Recall 4														
11/21/91																	
MM/DD/YY	MM/DD/YY	MM/DD/YY	MM/DD/YY														
EDIT/VIEW: <E>dit <F>ind <G>oto <N>ext-record <P>rev-record <Return>																	

Figure 5. Edit/view form for Members.

The actions of each of the Edit/view sub-menu commands are as follows:

- {E}dit**      {E}dit returns the cursor to the record displayed for further changes; the sub-menu options are not available. Entry of data in edit mode is the same as when appending a new record. Pressing <Esc> when in edit mode aborts the edit and the original data is displayed.
- {F}ind**      When editing Members, {F}ind enables you to select a specific record by specifying a member's SSN or name. (Part of a name or even a single letter can be used. PTARS will seek the first instance of whatever you type. Specifying the person's full name provides an exact match.) Since a name is not necessarily unique, the first occurrence of a match is shown on the screen. Specify a UIC when editing an Activity and a Curriculum Number when editing a Curriculum.
- {G}oto**      {G}oto enables you to go to a specific record number in the database. Record numbers are listed in the top left of the edit screen.
- {N}ext**      {N}ext-record brings up the next record. (By default, records are sorted by SSN. When a record is "found" by name, the database is sorted by last-name + first-name.)

**<Return> <Return> brings you back to the Main Menu.**

```

Record: 000002                                <ACTIVITY>
11/28/92 12:00:00 am
<F1> for Help
  BIC      Activity Name
  01400    NPS MONTEREY STUDENT
  Acronym   Point of Contact
  NPS STUDENT Curriculum Officer

```

```
Record: 808001          <CURRICUL>          11/28/92 12:00:00 am
<F1> for Help
Curriculum #          Curriculum Name
060                   Operations Analysis
Department             Phone #
Code 00               2236
```

```
EDIT/VIEW: (E)dit (F)ind (G)ets (N)ext-record (P)rev-record (Return)
```

18 *PTARS User's Manual*

Figure 8 shows the Edit/view form for Director. As discussed, Director can not be appended to or deleted. Hence, you are automatically in edit mode when you select this form. This is because there is only one clinic Director record and it must always contain a signature name.

Figure 8. Edit/view form for Director.

## Deleting/viewing records

Select the "Delete/view" option from the Main Menu to delete record(s) or to view multiple records on one screen. When a record is marked for deletion, an "\*" appears to the left of the record. Figure 9 shows the Delete/view screen for Members. The Delete/view screens for Activities and for Curriculums operate in the same fashion as for Members. The only difference is the fields displayed on screen. When the "==" appears in the upper right of the screen on the field column header line, additional fields exist for viewing. Pressing the right arrow key will pan the screen right to view the additional fields. Press the left arrow key to pan back to the left.

When a record is "Deleted" on the Delete/view screen, the record is not actually physically removed from the database; it is simply "marked" for deletion. This means that the record can still be recovered if you decide later that you want to "undelete" it. See the discussion of the <Del> action below for its operation. To permanently (physically) remove record(s) from a database, the database must be "packed". Chapter 6, "Utilities", provides further discussion of packing the database.

File: MEMBERS.DBF		DELETE/VIEW RECORDS				11/28/92 12:00:00 am
<F1> for help						
Record#	SSN	LAST NAME	FIRST NAME	MI	RANK/RATE	-->
1	000-00-0002	Merman	Ethel		LT	
2	001-00-0003	Miserables	Lee		LT	
3	012-12-1212	Andrews	Antoine	R	LT	
4	012-93-8475	Adams	John	Q	ENS	
5	022-20-0000	Marcos	Iselda		LTJG	
6	023-12-3122	Wine	Dandelion		ENS	
7	039-39-2828	Lincoln	Mark		ENS	
8	076-35-3746	Bloch	Robert	O	LCDR	
9	083-82-7827	Mathews	Mark	M	LTJG	
10	089-64-3585	Morrison	Larry	R	LTJG	
11	102-20-0000	Mastroiani	Marcello	O	LT	
12	109-28-3746	Laverne	Shirley		DT2	
13	123-45-6789	Doherty	Janet	I	LT	
14	123-50-9213	Madison	James	F	CAPT	
15	123-92-9292	Alexander	Hamilton	A	ENS	
16	133-21-3838	Zamfir	Jonathan	L	SGT	
17	134-15-6789	Sullivan	Karen	I	LTJG	
18	138-38-3838	Mears	Rick		LT	
DELETE/VIEW: (F)ind (G)oto (M)ode (Arrows) (PgDn) (PgUp) (Del) (Return)						

Figure 9. Delete/view screen for Members.

The actions of each of the Delete/view sub-menu commands are as follows:

- {F}ind** Performs the same action as with the Edit/view form.
- {G}oto** Performs the same action as with the Edit/view form.
- {M}ode** {M}ode pops-up a selection of display modes for EGA and VGA video adapters: EGA, 25 or 43 lines; VGA, 25 or 50 lines. More lines on a screen are useful when deleting many members in a single session.
- <Arrows>** <Arrows> refers to the direction keys for moving sideways to view panels of fields or up and down to place the cursor on different records.
- <PgDn>** <PgDn> takes you to the next screen of consecutive records.
- <PgUp>** <PgUp> takes you to the prior screen of consecutive records.
- <Del>** <Del> toggles a deletion marker for a record. To mark a record for deletion, move the cursor to the record and press <Del>. When a record is marked for deletion an "\*" appears to the left of the record. To unmark a deletion, make sure the cursor is on the correct marked record and press <Del> again.
- <Return>** <Return> brings you back to the Main Menu.

## Recalls

Recalls are the primary reason for the existence of PTARS. Each of the Service Branches require that members receive an annual dental examination (a "T2" exam), regardless of any prior need for dental treatment. Hence, members require notification prior to expiration of the 12 month period since their last exam (T2 or otherwise). PTARS automates the recall (notification) process by printing initial recall letters (Recall 1) and, if necessary, up to three follow-up letters (Recall 2 to Recall 4) to members.

The following topics are covered in this chapter:

- Printing recalls
- Printing recall lists
- Viewing/editing recall dates

The Recalls Menu is accessed by selecting the "Recalls" option from the Main Menu. As shown in Figure 10, three options are available from the Recalls Menu. Each of these options will be discussed in detail in this chapter.

```
01/28/92 12:00:00 an
PTARS RECALLS MENU

<F1> for help
<Alt+F1> for functions

0. Exit to main menu
1. Print recalls
2. pRint most recent recall list
3. View/edit re ll dates

select : :
```

Figure 10. Recalls Menu.



## Printing recalls

Select "Print recalls" from the Recalls Menu to immediately start printing recall letters. Note that PTARS always backs-up the current MEMBERS.DBF to the hard disk prior to beginning its print routine. Also, note that prior to printing something, PTARS always presents a "Check the printer" notification. (See Figure 11.) You are also given the option to abort the print job. It is particularly important to heed this notification prior to printing recalls since the printing volume can be over 200 pages during this process and the print job can last over 45 minutes. Moreover, as discussed below, recall dates are inserted into the Members database. Any disruption of this process is problematic.

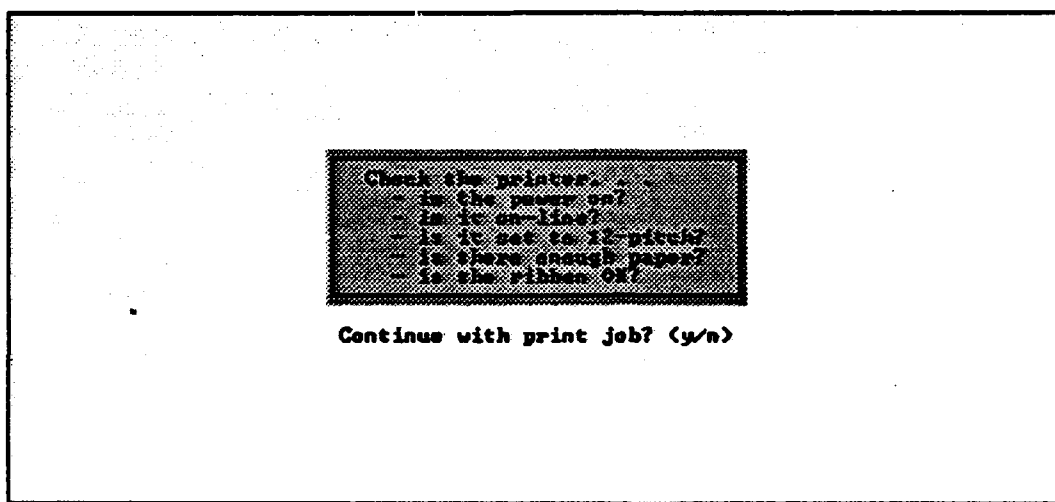


Figure 11. "Check the printer" notification.

It is important that recalls be printed at approximately the same time every month (e.g., the last day of the month or the first day of the month). This will provide consistency in the intervals that members receive follow-up letters, should they be necessary.

When you print recalls, all recall letters are printed and recall letter dates are inserted into MEMBERS.DBF. (Note: The current MEMBERS.DBF is backed-up to the hard disk before printing.) "Print Recalls" also creates a file for each recall letter category which lists members for whom a recall letter is printed (Recall1.lst to Recall4.lst). The previous recall list files are saved with a .BAK extension should they need to be examined from DOS. The logic of recall printing is described following the important section below.

**IMPORTANT** - The recall letter printing module automatically inserts a new recall letter date into the Members database when a recall letter is printed. It also creates files (RECALL1.LST to RECALL4.LST) containing SSNs and names of members for whom a recall letter was printed. If a printer malfunction occurs or the print job is aborted for some reason, it will be necessary to compare the file listings of the most recent recall letters against the physically printed letters. Members who are on the file listing, but for whom there is no useable printed recall letter, must have the new recall letter date deleted before the program can print a replacement recall letter. This is because the printing module checks the existing recall dates to determine if an appropriate recall letter has already been printed.

If for some reason none or relatively few usable recall letters are printed (e.g., the printer was not turned on or there was an early paper jam), you may want to consider restoring the hard disk backup that was created just prior to printing the recalls and starting over. None of the new recall dates will exist on the backup and you can fix the printer and start fresh. See "Restoring backup(s)" in chapter 6. The logic of the recall process is described below:

- Recall 1** Recall 1 is triggered after at least 10 full months + 1 day have transpired since the member's last T2 exam. Prints a memo to the member and records the print date as Recall 1 date.
- Recall 2** Recall 2 is triggered after at least 11 full months + 1 day have transpired since the member's last T2 exam, provided that Recall 1 date is in the database and that at least 25 days have transpired since Recall 1. Prints a memo to the member and records the print date as Recall 2 date.
- Recall 3** Recall 3 is triggered after at least 12 full months + 1 day have transpired since the member's last T2 exam, provided that Recall 2 date is in the database and that at least 25 days have transpired since Recall 2. Prints a letter to the member and records the print date as Recall 3 date.
- Recall 4** Recall 4 is triggered after at least 13 full months + 1 day have transpired since the member's last T2 exam, provided that Recall 3 date is in the database and that at least 25 days have transpired since Recall 3. Prints the letter to the member's superior (i.e., Curriculum Officer for students or to Activity POC for non-students) and records the print date as Recall 4 date.

Example recall letters 1 through 4 are shown in Figures 11 through 14 on the following three pages. Note that the text of Recall 4 indicates that Recall 3 is included as an enclosure. Thus, when routing Recall 4 letters a copy of Recall 3 should be attached. Copies of recall letters can be made by printing from double-copy paper, or alternatively, Xerox copies of just letters 3 and 4 can be made before routing them. The volume of these two letters is historically very low.

1 December 1991

MEMORANDUM (First Reminder)

From: Director, Branch Dental Clinic, Monterey  
To: ENS Dandelion Wine, USN, 023-12-3122, NPS STUDENT (SMC 1002)

Subj: ANNUAL DENTAL EXAMINATION

Ref: (a) SECNAVINST 6600.1C  
(b) AR 40-35  
(c) AF MAN 30-130  
(d) COMDTINST M6000.1B

1. References (a) through (d) require that all personnel receive an annual dental examination. Your record indicates that you will be due for an examination next month.
2. Please schedule an appointment with the Dental Clinic in person or by calling 646-2477/2478 at your earliest convenience.
3. If you have had a dental exam within the past 90 days, please contact the dental clinic so that we may update your record. If you have already made an appointment, please disregard this notice.

R. C. TERHUNE

Figure 11. Example Recall 1 memorandum.

1 December 1991

MEMORANDUM (Second Reminder)

From: Director, Branch Dental Clinic, Monterey  
To: LCDR Robert O. Bloch, USN, 076-35-3746, NPS STUDENT (SMC 1230)

Subj: ANNUAL DENTAL EXAMINATION

Ref: (a) SECNAVINST 6600.1C  
(b) AR 40-35  
(c) AF MAN 30-130  
(d) COMDTINST M6000.1B

1. References (a) through (d) require that all personnel receive an annual dental examination. Your record indicates that you will be due for an examination this month.
2. Please schedule an appointment with the Dental Clinic in person or by calling 646-2477/2478 within 10 days of receiving this notice.
3. If you have had a dental exam within the past 90 days, please contact the dental clinic so that we may update your record. If you have already made an appointment, please disregard this notice.

R. C. TERHUNE

Figure 12. Example Recall 2 memorandum.

BRANCH DENTAL CLINIC  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CA 93943-5100

1 December 1991

From: Director, Branch Dental Clinic, Monterey  
To: LT Antoine R. Andrews, USN, 012-12-1212, NDCLB  
Subj: ANNUAL DENTAL EXAMINATION DELINQUENCY NOTIFICATION

Ref: (a) SECNAVINST 6600.1C  
(b) AR 40-35  
(c) AF MAN 30-130  
(d) COMDTINST M6000.1B

1. References (a) through (d) require that all active duty military personnel receive a comprehensive dental examination at least once each 12 months.
2. A review of your dental record indicates that your last dental examination was conducted in November, 1990.
3. This facility attempts to assist each member by sending out computerized reminders when their annual examination is due. This was done in your case on 1 October, 1991 and 2 November, 1991 and you failed to respond.
4. It is my responsibility to ensure adherence to the provisions of the references. I am therefore informing you that your annual dental examination must be accomplished prior to 1 January, 1992. Failure to comply will result in further action.
5. You may schedule an examination in person or by calling extension 2477/2478. If you have already made an appointment, please call to confirm it.

R. C. TERHUNE

Figure 13. Example Recall 3 letter.

BRANCH DENTAL CLINIC  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CA 93943-5100

1 December 1991

From: Director, Branch Dental Clinic, Monterey  
To: Curriculum Officer, Operations Analysis (Code 30)

Subj: MAJOR Larry B. Herman, USAF, 256-98-6582

Encl: (1) Copy of my ltr dtd 1 November, 1991

Ref: (a) SECNAVINST 6600.1C  
(b) AR 40-35  
(c) AF MAN 30-130  
(d) COMDTINST M6000.1B

1. Per references (a) through (d), all active duty military personnel are required to have an annual dental examination. The Branch Dental Clinic, Naval Postgraduate School, contacts individuals requiring examination by sending them a recall notice via the mail. Dental records of personnel that do not respond and exceed the one year limit are marked accordingly and then another recall notice is sent.

2. MAJOR Herman was sent both recall notices and after failing to respond was sent enclosure (1). He/She once again has failed to respond and I must now assume that he/she does not intend to comply with the references.

3. It is requested that MAJOR Herman be appropriately counseled and directed to call extension 2477/2478 to schedule his/her annual dental examination. If you have any questions please feel free to call me at any time.

R. C. TERHUNE

Figure 14. Example Recall 4 letter.

## Printing recall lists

Select "pRint most recent recall list" from the Recalls Menu. This option lists (to the printer only) the most recent recall letter information. (The same information is listed to the screen during the printing of the recall letters.) Use this option in the event of a printer malfunction when printing recall letters to compare physical letters against what the program "thinks" it printed. Popup options are presented to select which listing to print. Figure 15 depicts an example listing of Recall 3.

Listing of most recent Recall 3 letters. Created 01/23/92 at 12:00.				
SSN	Last Name	First Name	MI	Last T2
012-12-1212	Andrews	Antoine	R	07/14/90
089-64-3585	Morrison	Larry	R	02/17/89
123-92-9292	Alexander	Hamilton	A	07/12/90
133-21-3838	Zamfir	Jonathan	L	07/12/90
145-89-4509	Lane	Lois	A	04/12/90
149-34-9321	Connors	Jimmy	P	06/14/89
234-58-9234	Delbert	Arnold		07/12/90
282-38-2881	Cricket	Jiminy		07/28/90
283-82-3843	Dean	Larry	X	07/30/90
336-29-3121	Maples	Veronica	S	12/25/89
342-34-5245	Tillerman	Teaforthe		09/01/90
345-21-6587	Rogers	Maybelle	T	12/11/89
345-92-0394	Newman	Alfred	E	04/21/90
383-83-8383	Name	New		07/12/90
408-45-9084	Stevenson	Robert	L	04/21/89
427-84-8320	Diller	Phyllis		02/19/90
489-43-8438	Bell	Dabney		08/12/90
494-59-3493	Dillo	Arma	A	07/12/90
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.

Figure 15. Example listing of Recall 3.

## Viewing/editing recall dates

The "View/edit recall dates" option of the Recalls Menu provides a means for viewing recall letter dates for multiple records and for accessing individual records for recall letter date editing. This facility should be used in conjunction with the previously discussed recall listings in the event of a printer malfunction when printing recall letters. The sub-menu options of the View Recalls screen shown in Figure 16 are the same as the like-named options discussed in Chapter 3 for the Delete/view screen. Since recall dates are a subset of the fields in the Members database, records can not be deleted using View Recalls.

01/28/92 12:00:00 am

<F1> for help      VIEW RECALL DATES

Records#	SSN	LAST NAME, FI--	RECALL_1	RECALL_2	RECALL_3	RECALL_4
1	000-00-0002	Merman, E	11/01/90	12/02/90	01/10/91	10/12/91
2	001-00-0003	Miserables, L	/	/	/	/
3	012-12-1212	Andrews, A	09/03/91	10/04/91	/	/
4	012-93-8475	Adams, J	07/18/90	08/18/90	09/18/90	10/12/91
5	022-20-0000	Marcos, I	/	/	/	/
6	023-12-3122	Wine, D	/	/	/	/
7	039-39-2828	Lincoln, M	/	/	/	/
8	076-35-3746	Bloch, R	10/04/91	/	/	/
9	003-02-7827	Mathews, M	/	/	/	/
10	009-64-3585	Morrison, L	09/16/90	10/04/91	/	/
11	102-20-0000	Mastroiani, M	/	/	/	/
12	109-20-3746	Laverne, S	/	/	/	/
13	123-45-6789	Doherty, J	11/21/91	/	/	/
14	123-58-9213	Madison, J	05/18/91	06/18/91	07/19/91	10/04/91
15	123-92-9292	Alexander, M	09/16/91	10/12/91	/	/
16	133-21-3838	Zamfir, J	09/16/91	10/12/91	/	/
17	134-15-6789	Sullivan, K	06/12/91	07/12/91	08/12/91	10/04/91
18	138-30-3838	Mears, R	/	/	/	/

VIEW RECALLS: <E>dit <F>ind <G>oto <M>ode <A>rrows <PgDn> <PgUp> <Return>

Figure 16. View Recalls screen.

As discussed previously, the purpose of editing recall letter dates is to enable PTARS to print a replacement recall letter. If a recall letter date is present for a given recall letter, the program will only be able to print the *next* letter when the eligibility date for the *next* recall letter arrives. To reprint a letter, the recall letter date *must* be deleted *and* there *must not* be a subsequent recall letter date present. If this sounds confusing, reread the previous coverage of "Printing Recalls".

To edit a member's recall dates, press {E}. The current row of the display will be highlighted and placed into edit mode. Use normal editing and movement keys to edit the date(s). Note that edited dates are checked for chronological consistency as well as general date validity (i.e., can not be later than the current date, must have a prior recall, can not be missing a recall between recalls, values must be chronologically correct for existent recalls).

## Reports

This chapter discusses the various reports available in PTARS and provides several example figures to preview the look of the reports. The Reports Menu, shown in Figure 17, is accessed from the Main Menu by pressing {P}. The Operational Readiness Report is available to both the screen and the printer. The other reports (rosters) are sent to the printer only.

```

11/28/92 12:00:00 am
PTARS REPORTS MENU

<F1> for help
<Alt+F1> for functions

0. Exit to main menu
1. Operational readiness
2. Members (all)
3. members by Class
4. members by UIC (all)
5. members by Pano status
6. Activities
7. cuRriculum

select : :
  
```

Figure 17. Reports Menu.

### Operational readiness

The Operational Readiness Report provides counts and percentages of members in each of the dental CLASS categories. The report is initially displayed to the screen and you are given the option of printing it. Operational Readiness is defined as the percentage of all members served by the clinic who are classified as CLASS 1 or 2. As can be seen in Figure 18, the Operational Readiness percentage is a simple summation of the CLASS 1 and CLASS 2 percentages.



BRANCH DENTAL CLINIC, MONTEREY OPERATIONAL READINESS REPORT All Members					January 28, 1992
CLASS CATEGORY:	Class 1	Class 2	Class 3	Class 4	TOTAL
MEMBER COUNT:	1152	566	111	91	1920
PERCENT OF TOTAL:	60%	29%	5.8%	4.7%	100%
OPERATIONAL READINESS:	89%				
PANO CATEGORY:	Green	Red	Yellow		TOTAL
PANO COUNT:	1853	21	46		1920
PERCENT OF TOTAL:	97%	1.1%	1.9%		100%
Print this report? (y/n)					

Figure 18. Operational Readiness Report to screen.

Also included in the report are counts and percentages of members whose Pano X-rays are in a given status. Three Pano status categories exist and are designated by standard color designations:

GRN (Green)	Pano is accepted and on-file
RED	Pano has been duplicated and forwarded
YLW (Yellow)	Pano is not on-file and has not been duplicated and forwarded

## Rosters

The remaining reports available from the Reports Menu are basically rosters sorted on various fields of interest. After selecting any of the Members reports a popup will offer a selection of whether to list members by SSN or alphabetically. If printing Members by dental CLASS, a popup will allow selection of a specific CLASS or all members. If printing Members by Pano status, a popup will allow selection of a specific status or all members. Figure 19 provides an example roster of Members listed by SSN that could be printed by selecting option 2, "Members (all)", from the Reports Menu.

Selections 6 and 7 from the Reports Menu print complete rosters of the Activities and the Curriculums contained in their respective PTARS databases.

Periodic comparison of Member rosters against data from both PSD and the Registrar will help keep member data up-to-date. Current listings of the Curriculums at NPS should also be obtained from the Registrar so that the Curriculum database can be kept up-to-date.

FOR OFFICIAL USE ONLY		BRANCH DENTAL CLINIC MONTEREY Member Listing by SSN					January 28, 1992	
SSN	NAME	RANK	SERVICE BRANCH	UIC	SMC/ CODE	LAST T2 EXAM	CLASS	PANO STATUS
000-00-0002	Merman, Ethel	LT	USN	63134	1000	03/21/89	4	GRN
001-00-0003	Miserables, Les	LT	USN	45210		03/21/91	1	GRN
012-12-1212	Andrews, Antoine R.	LT	USN	35728		07/14/90	4	GRN
012-93-8475	Adams, John Q.	ENS	USN	31405	1280	07/12/89	4	YLW
022-20-0000	Marcos, Imelda	CAPT	USA	TRAC		09/12/91	1	RED
023-12-3122	Wine, Dandelion	ENS	USN	31405	1002	07/30/90	4	GRN
039-39-2828	Lincoln, Mark	ENS	USN	31405	1010	11/17/90	4	GRN
076-35-3746	Bloch, Robert O.	LCDR	USN	31405	1230	01/05/90	4	YLW
083-82-7827	Mathews, Mark M.	LTJG	USN	35728		04/12/91	1	YLW
089-64-3585	Morrison, Larry R.	LTJG	USN	31405	1343	02/17/89	4	RED
102-20-0000	Mastroiani, Marcello O.	LT	USN	31405	2030	09/12/91	1	GRN
109-28-3746	Laverne, Shirley	DT2	USN	35728		07/30/91	4	GRN
123-45-6789	Doherty, Janet I.	LT	USN	31405	1001	11/21/90	4	GRN
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
568-46-4321	Johnson, Emily T.	YN3	USN	43073		06/03/91	1	GRN
571-56-3636	Conseco, Jose F.	ENS	USN	31405	1776	07/12/90	4	GRN
574-84-3823	Than, Smaller X.	LCDR	USN	31405	2312	07/12/91	1	GRN

Page: X

Figure 19. Members (all) roster sorted by SSN.



## Utilities

This Chapter explains the various utilities included with PTARS that support proper maintenance of the databases. The Utilities Menu is accessed by pressing {U} from the Main Menu and is shown in Figure 20.

It contains the following sections:

- Backup utilities
- Changing the password
- Packing the database(s)
- Changing the date or time
- Selecting the default printer

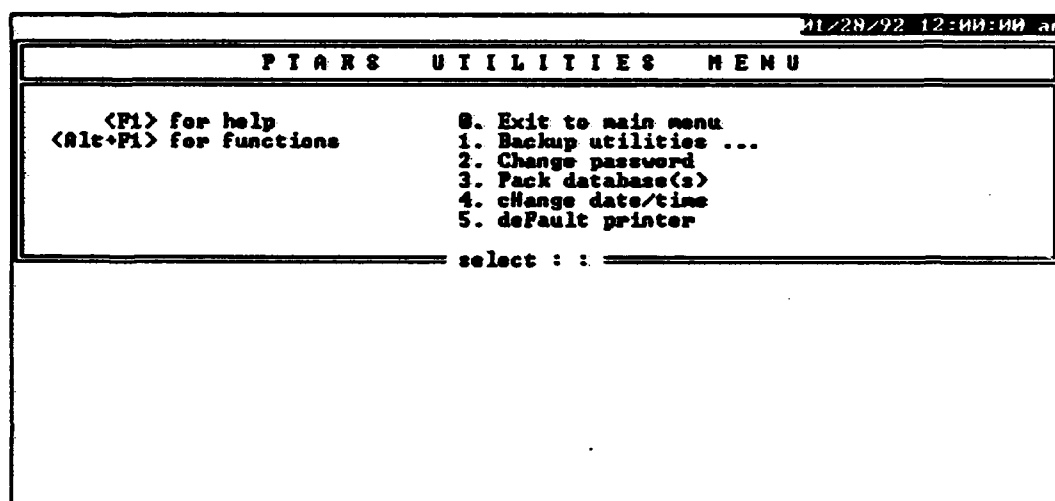


Figure 20. Utilities Menu.

### Backup utilities

The backup utilities are a collection of utilities related to backing-up and restoring the four database files MEMBERS.DBF, ACTIVITY.DBF, CURRICUL.DBF, and

DIRECTOR.DBF. The Backup Utilities Menu, shown in Figure 21, is accessed from the Utilities Menu by pressing {B}. Each of the menu selections will be discussed in the sub-sections below.

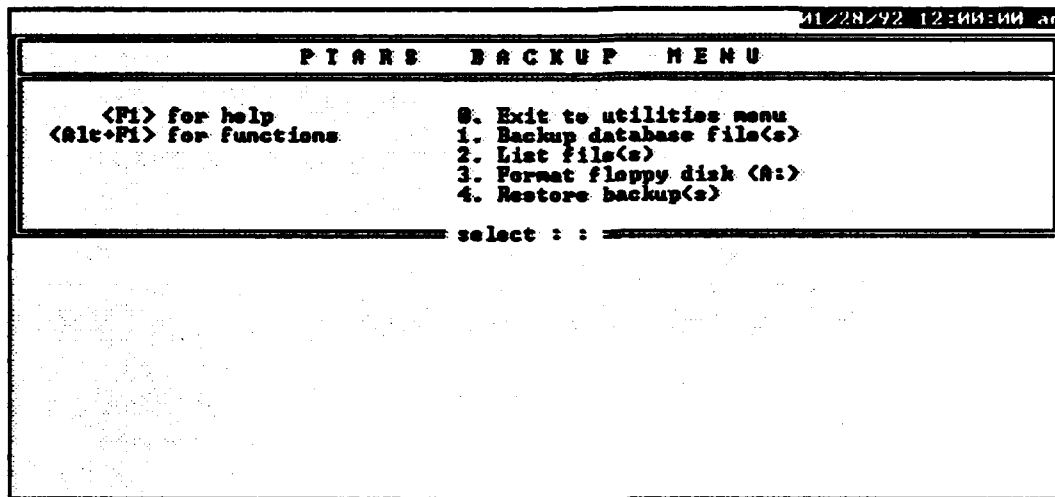


Figure 21. Backup Utilities Menu.

### **Backing-up database(s)**

When you first select Backup, a popup will appear allowing you to select whether you want to back-up to the hard disk or the floppy disk in drive A. Next, another popup appears to let you select which database file(s) (i.e., MEMBERS.DBF, ACTIVITY.DBF, CURRICUL.DBF, DIRECTOR.DBF, or all) to back-up. Once your selection is made, Backup copies the selected file(s) to the destination drive. Backing-up to a floppy keeps a reserve copy of the data that can be restored in case something happens to the computer, hard disk, or the data. Backing-up to the hard disk is convenient for short-term backups, but is *not* sufficient for best reliability. Note that the PTARS program presents the option to back-up the databases to the hard disk prior to quitting a session.

Your data *should* be backed up to a floppy disk weekly and immediately following input or editing sessions involving many records. It is a good idea to keep two or three backup floppies in rotation—writing over the oldest backup each time. *Always* label your backups to floppy disk with the file names and their creation dates. This will help you to identify your backups later if you need to restore them. Hint: use a pencil to label your backups; you can use several floppy disks over and over again by erasing and writing the new information.

Remember, there is only one way to ensure the safety of your data: rigorous adherence to a regular program of backing-up.

### **Listing files**

A popup menu allows selecting the hard disk PTARS subdirectory or floppy disk A: for listing files. Either just database files can be displayed or all files can be displayed. When database files are displayed the following information is included: file name, number of records, last update, file size, total bytes in database files, and bytes remaining on the drive. When all files are displayed, file names are listed and total bytes used in the files and bytes remaining on the drive are presented.

This utility is useful for identifying files that might already exist on a diskette that will be used for backups.

### **Formatting a floppy disk**

Formats a 360Kbyte or a 1.2Mbyte floppy disk (5 ¼") placed in drive A. A popup presents three options:

360K --> 360K	Formats from a 360K capacity drive to a 360K floppy
1.2M --> 360K	Formats from a 1.2M capacity drive to a 360K floppy
1.2M --> 1.2M	Formats from a 1.2M capacity drive to a 1.2M floppy

The first number indicates the actual drive-type. For example, your machine may only be capable of formatting 360K floppy disks, as in the first option. The second number indicates the floppy disk formatted capacity. A new floppy disk must be formatted so that the Disk Operating System (DOS) can read and write data to it.

### **Restoring backup(s)**

When you select "Restore backup(s)", a popup enables selectively replacing database file(s) with backups from the hard disk or a floppy disk.

At the end of every session with PTARS you are presented with the option to backup the databases to the hard disk. If you choose to do so, four backup database files, MEM\_BU.DBF, ACT\_BU.DBF, CUR\_BU.DBF, and DIR\_BU.DBF are created in the PTARS subdirectory of your hard drive. These files can be restored (either singly or together) to MEMBERS.DBF, ACTIVITY.DBF, CURRICUL.DBF, and DIRECTOR.DBF, respectively. The restored backups overwrite the current database file(s).

**Note that backing-up to the hard drive does not protect your data from hard drive or computer failure since the backups reside on the same machine as the original data.** The feature is useful, however, if your original data becomes corrupted for some reason but your backups are still OK. In addition, it may be useful in the event you have experienced a printer malfunction (e.g., your printer ribbon gave up the ghost) and you have many unusable recall letters. Rather than editing recall dates and printing again,

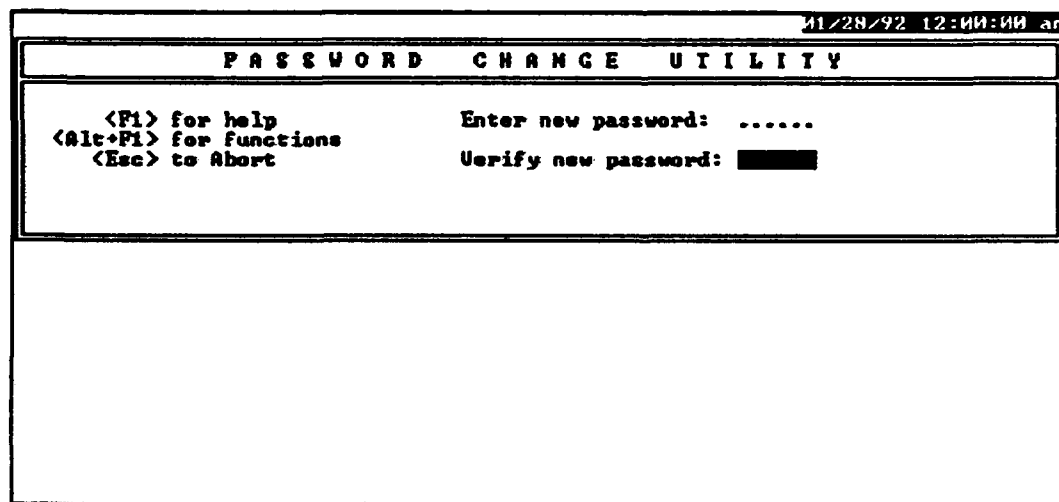
it may be advantageous to restore the backup of MEMBERS.DBF (which PTARS always makes before printing recalls) and start over.

A final method of restoring any database is to manually copy the file using DOS commands. This method should never be necessary since the capability is built into PTARS. If for some reason you should need to manually restore a \*.DBF file, be sure that any like-named compound index file (\*.CDX) is erased (e.g., from the DOS prompt: `del c:\ptars\members.cdx`) This is because a unique index file is created and updated by PTARS for each database. If the index file does not "belong" to the specific version of a database, PTARS will not perform properly and will give an error notification.

## Changing the password

You can change the current password to a new password (it must have 6 characters). Make sure that you *remember* the new password. If you ever forget your new password, copy the file NPS\_MISC.DBF from disk 3 of your *backup copies* of the installation disks to the sub-directory \PTARS (e.g., copy `a:\nps_misc.dbf c:\ptars`). The original password is "zyxabc". This default password should be changed immediately after you install PTARS. (If you can read it here, so can someone else.) Note that the password is encrypted in the file NPS\_MISC.DBF and cannot be deciphered if it is forgotten.

Figure 22 shows the screen for changing the password. As you type your new password, a dot will appear for each character typed. As shown in the figure, to verify that you typed what you thought you typed, PTARS prompts for a second entry of your new password. If the two entries do not match, the password change will be aborted.



```
11/28/92 12:00:00 am
PASSWORD CHANGE UTILITY

<F1> for help
<Alt-F1> for functions
<Esc> to Abort

Enter new password: .....
Verify new password: [REDACTED]
```

Figure 22. Password change screen.

For effective security it is a good idea to periodically change your password. If an unauthorized individual inadvertently (or even deliberately) changes or damages your data, it could be a catastrophe. Regarding security, just think about having to re-enter over 1900 records!

## Packing the database(s)

Packing the database(s) *permanently* deletes records "marked" for deletion from one or all of the three primary databases: MEMBERS.DBF, ACTIVITY.DBF, and CURRICUL.DBF. It also physically sorts the databases. MEMBERS.DBF is sorted in ascending order by SSN; ACTIVITY.DBF is sorted in ascending order by UIC; and CURRICUL.DBF is sorted in ascending order by curriculum number. Packing improves the performance of PTARS by reducing the physical size of the database(s) and reorders the records by the primary key. Note that the effects of packing are *not* "undoable". An informational prompt will appear upon quitting a session when 10% or more of the MEMBER.DBF records are marked for deletion. You should heed the prompt and pack the database (unless you have some good reason not to).

## Changing the date or time

After selecting the "Change date or time" option a popup for selecting which to change (date or time) appears. After your selection is made you are prompted to enter the date or time using the example format shown on the screen. The system date or time can also be changed when starting the PTARS program. As part of the opening screen routine the user is prompted to verify the system date and time. If the system date or time displayed is incorrect, enter the correct date or time using the example format shown on the screen.

## Selecting the default printer

You should select the default printer before printing anything from PTARS for the first time. After choosing this option from the Utilities Menu, PTARS pops-up two common printer emulations for dot matrix printers: (1) Epson E/F/J/RX/LQ emulation and (2) IBM Proprinter emulation. The emulation you select becomes the default for all subsequent sessions. The Epson emulation is supported by the majority of 9 pin dot matrix printers and PTARS uses it as the initial default. The default printer identifier is stored in a field in the NPS\_MISC.DBF file.







## ***Optimizing PTARS***

This appendix identifies several ways that you can optimize the performance of PTARS if you have certain hardware or software capabilities. It contains the following sections:

- Disk defrag/compress
- Memory
- Config.sys
- Pack the database(s)

### **Disk defrag/compress**

The performance of PTARS can be significantly improved if a disk defragment/compression procedure is performed on your hard drive periodically. Over time the database files will become fragmented as records are appended, edited and deleted. This slows down disk reads and writes since each file is no longer one contiguous piece; files can become many pieces scattered all over the disk. Defragment/compression utilities are available commercially.

### **Memory**

PTARS will take advantage of all types of computer memory. If your computer is configured correctly, PTARS' performance will be enhanced. **Note that if you change your computer's memory configuration or add a disk cache program, you must re-install PTARS so that it operates optimally.**

Personal Computers (PC)s can contain three types of memory: conventional, expanded and extended.

#### **Conventional Memory**

All PCs can contain conventional memory (up to 640K). This is the memory that programs typically load into and run in. PTARS requires that you have at least 512K of conventional memory with at least 420K of it free after memory resident programs have been loaded. A minimum of 640K is *strongly* recommended.

### **Expanded Memory**

The 8086 family of microprocessors have a physical address space of 1024K, or 1MB. The first 640K is the conventional memory space discussed above. The remaining 384K is reserved for use by read-only memory (ROM) and hardware device controllers. Also, within this area of memory, a 64K block can be reserved for use by an expanded memory manager which conforms to the Lotus/Intel/Microsoft interface specification (a LIM EMS Memory Manager).

The Expanded Memory Manager (EMM) administers expanded memory as a system resource that can be used by several applications at the same time and services EMS function calls. EMS memory is bank-switched memory that can be larger than the CPU's address space that is mapped into conventional memory via the EMS page frame.

On machines with expanded memory that is LIM 4.0 EMS compatible, PTARS uses the first 64K of expanded memory as "general purpose" memory and any remaining expanded memory to speed file I/O and to cache PTARS code segments.

To check how much EMS is currently being used by PTARS, look in the "About PTARS" box (by pressing <F4> or <Alt+F1>).

If you run on an 80386 or 80486 you're in luck! There are many inexpensive programs that use extended memory to emulate EMS, such as QEMM from Quarterdeck and 386MAX from Qualitas. MS-DOS 5.0 includes EMM386. On a 386 always use QEMM, 386Max, or other expanded memory managers. You'll be glad you did!

If you use a non-80386 processor you have several options. First, you could invest in an EMS board. These pieces of hardware, which usually work with both 8086/88 and 80286 processors, include substantial amounts of memory together with driver programs which provide the software interface to the board.

### **Extended Memory**

Extended memory is memory that lies above the 1MB address range. It can be used directly by some operating systems (OS/2 and UNIX), but standard DOS cannot address it without the use of an Extended Memory Specification (XMS) driver, an interface that allows access to memory beyond 640K. Applications using this address space must be running in protected mode.

Extended memory cannot be used directly by PTARS until it is made to act like EMS. How you make extended memory act like expanded memory is dependent on your system, but typically you install a memory manager -- software that provides an EMS style (LIM 4.0) interface to extended memory. Once the extended memory is emulating EMS memory, PTARS will sense that it is there and make good use of it.

## Config.sys

The system configuration file, CONFIG.SYS, contains certain commands that are checked and executed when you start up your computer. These commands change your computer's default configuration.

CONFIG.SYS is not a PTARS file. It's a file that DOS uses to establish the working environment. Because PTARS interacts with this environment, you must be sure that certain settings are properly established. Two CONFIG.SYS statements are of immediate importance to PTARS:

**BUFFERS** The BUFFERS statement contains the number of disk buffers that DOS sets aside in memory when your computer is started. A disk buffer is a block of memory (typically 512 bytes) that DOS uses to hold data when reading and writing from disk. For best performance with PTARS, the CONFIG.SYS file should contain a BUFFERS statement with a number between 20 and 40 (e.g., BUFFERS=30).

**FILES** The FILES statement sets the number of files that DOS can open and access at one time. This number is directly related to the number of files that PTARS will be able to open. The FILES statement in CONFIG.SYS should always be at least 25 (e.g., FILES=25).

See your DOS manual for complete details on the CONFIG.SYS file and the various statements it can contain.

## Pack the database(s)

Packing the databases is covered in Chapter 6.





## ***File definitions***

The files listed below (with their definitions) are installed by Setup into the "\PTARS" hard disk subdirectory. These files are essential to the operation of PTARS. Three of the files, FOXPRO.ESL, FOXPRO.ESO, and PTAR.EXE are in compressed form on the installation disks and will not work if copied directly from the floppy disk to your hard drive. All of the other files installed by PTARS are in normal form on the installation disks.

### **PTARS files**

CONFIG.FP	resource pointer file
FOXPRO.ESL	database routines library
FOXPRO.ESO	database routines library
CACHE.COM	extended memory (512K req'd) disk cache utility
NPS_MISC.DBF	contains encrypted password, default printer, backup date
NPS_USER.DBF	contains configuration information
NPS_USER.FPT	memo file for configuration information
PTAR.EXE	PTARS executable program
PTARS.COM	PTARS loader program

### **NPSDC database files**

ACTIVITY.DBF	contains UIC information
CURRICUL.DBF	contains student Curriculum information
DIRECTOR.DBF	contains current Director signature name
MEMBERS.DBF	contains Member information

The following files are created during the operation of PTARS and may or may not be present at any given time:

ACTIVITY.CDX	compound index file for ACTIVITY.DBF
CURRICUL.CDX	compound index file for CURRICUL.DBF
MEMBERS.CDX	compound index file for MEMBERS.DBF
ACT_BU.DBF	hard disk backup of ACTIVITY.DBF
CUR_BU.DBF	hard disk backup of CURRICUL.DBF
DIR_BU.DBF	hard disk backup of DIRECTOR.DBF
MEM_BU.DBF	hard disk backup of MEMBERS.DBF

RECALL1.LST	most recent listing of members receiving recall 1 letter
RECALL2.LST	most recent listing of members receiving recall 2 letter
RECALL3.LST	most recent listing of members receiving recall 3 letter
RECALL4.LST	most recent listing of members receiving recall 4 letter
RECALL1.BAK	previous listing of members receiving recall 1 letter
RECALL2.BAK	previous listing of members receiving recall 2 letter
RECALL3.BAK	previous listing of members receiving recall 3 letter
RECALL4.BAK	previous listing of members receiving recall 4 letter
RELATE1.VUE	PTARS environment file
RELATE2.VUE	PTARS environment file



## *Database specifications*

### **Members.dbf**

<u>Field-name</u>	<u>Type</u>	<u>Length</u>	<u>Usage</u>
SSN	Character	11	Social Security Number -- unique, mandatory, key field
LAST_NAME	Character	23	Last Name -- mandatory
FIRST_NAME	Character	15	First Name -- mandatory
MI	Character	1	Middle Initial -- if available
RANK_RATE	Character	5	Rank or Rate -- mandatory
BRANCH	Character	4	Service Branch -- mandatory, popup list
LAST_T2	Date	8	Last-T2-Exam date -- mandatory
CLASS	Numeric	1	Dental Class -- mandatory, range (1 - 4), PTARS updated
PANO	Character	3	Pano X-ray status -- mandatory, popup list
UIC	Character	5	Unit Identification Code -- mandatory, popup list, linked with ACTIVITY.DBF (used in "To:" line of recall letters to students)
CURR_NUM	Character	3	Curriculum Number -- mandatory for UIC 31405, popup list, linked with CURRICUL.DBF
SNC/CODE	Character	4	Student Mail Center number/Department Code -- if available (used in "To:" line of recall letters)
RECALL_1	Date	8	Recall 1 letter date -- PTARS created, editable
RECALL_2	Date	8	Recall 2 letter date -- PTARS created, editable
RECALL_3	Date	8	Recall 3 letter date -- PTARS created, editable
RECALL_4	Date	8	Recall 4 letter date -- PTARS created, editable

### **Activity.dbf**

<u>Field-name</u>	<u>Type</u>	<u>Length</u>	<u>Usage</u>
UIC	Character	5	Unit Identification Code -- unique, mandatory, key field
ACRONYM	Character	11	Acronym for UIC -- mandatory (used in "To:" line of recall letters 1 - 3)
ACT_NAME	Character	47	UIC Name -- mandatory (used in "To:" line of recall 4 letter)
POC	Character	20	UIC Point of Contact -- mandatory (used in "To:" line of recall 4 letter)

### **Curricul.dbf**

<u>Field-name</u>	<u>Type</u>	<u>Length</u>	<u>Usage</u>
CURR_NUM	Character	3	Curriculum Number -- unique, mandatory, key field
CURR_NAME	Character	46	Curriculum Name -- mandatory (used in "To:" line of recall 4 letter applicable to students)
DEPT_CODE	Character	2	Department Code of Curriculum -- mandatory (used in "To:" line of recall 4 letter applicable to students)
PHONE_NO	Character	4	Curriculum Office Phone Number -- mandatory

### **Director.dbf**

<u>Field-name</u>	<u>Type</u>	<u>Length</u>	<u>Usage</u>
DIRECTOR	Character	20	Director signature -- mandatory (format as per signature line of recall letters)



## APPENDIX D: RELATION DEFINITIONS

### MEMBER

<u>Item</u>	<u>Type</u>	<u>Length</u>
SSN	Character	11
Last-name	Character	23
First-name	Character	15
MI	Character	1
Rank_rate	Character	5
Branch	Character	4
Last_T2	Date	8
Class	Numeric	1
Pano	Character	3
UIC	Character	5
Curr-num	Character	3
SMC/Code	Character	4
Recall_1	Date	8
Recall_2	Date	8
Recall_3	Date	8
Recall_4	Date	8

### ACTIVITY

<u>Item</u>	<u>Type</u>	<u>Length</u>
UIC	Character	5
Acronym	Character	11
Act-name	Character	47
POC	Character	20

### CURRICULUM

<u>Item</u>	<u>Type</u>	<u>Length</u>
Curr-num	Character	3
Curr-name	Character	46
Dept_code	Character	2
Phone_no	Character	4

## APPENDIX E: PROGRAM CODE

System: MPASC PATIENT TRACKING & RECALL SYSTEM  
Author: LCDR Timothy P. Steele, MSC, USN  
01/20/92 09:01:11  
File List

### Programs and procedures:

ABORT	terraceure	In C.	V.IARDS VPS	MDC PRG
ADISPLAY	terraceure	In C.	V.IARDS VPS	MDC PRG
DAR1	terraceure	In C.	V.IARDS VPS	MDC PRG
DAR2	terraceure	In C.	V.IARDS VPS	MDC PRG
DAR3	terraceure	In C.	V.IARDS VPS	MDC PRG
DAR4	terraceure	In C.	V.IARDS VPS	MDC PRG
BOLISPLAY	terraceure	In C.	V.IARDS VPS	MDC PRG
BU	terraceure	In C.	V.IARDS VPS	BU PRG)
BU ALL	terraceure	In C.	V.IARDS VPS	BU PRG)
BU MENU	terraceure	In C.	V.IARDS VPS	BU PRG)
BU SELECT	terraceure	In C.	V.IARDS VPS	BU PRG)
BU SINGLE	terraceure	In C.	V.IARDS VPS	BU PRG)
COSIPLAY	terraceure	In C.	V.IARDS VPS	MDC PRG)
CLASSPOP	terraceure	In C.	V.IARDS VPS	MDC PRG)
CONFIG CHECK	terraceure	In C.	V.IARDS VPS	MDP PRG)
DATE TIME	terraceure	In C.	V.IARDS VPS	MDP PRG)
DMP BU	terraceure	In C.	V.IARDS VPS	UTIL PRG)
DEACTPOP	terraceure	In C.	V.IARDS VPS	MDC PRG)
DELAY	terraceure	In C.	V.IARDS VPS	MDC PRG)
DIRECTION	terraceure	In C.	V.IARDS VPS	EDIT PRG)
DUCOTO	terraceure	In C.	V.IARDS VPS	MDC PRG)
DUCOTO	terraceure	In C.	V.IARDS VPS	MDC PRG)
DUCOATE	terraceure	In C.	V.IARDS VPS	MDC PRG)
EXPACK	terraceure	In C.	V.IARDS VPS	MDC PRG)
DO REST POP	terraceure	In C.	V.IARDS VPS	MDC PRG)
DO REST POP	terraceure	In C.	V.IARDS VPS	MDC PRG)
EDIT	terraceure	In C.	V.IARDS VPS	RECA PRG)
EQU SETUP	terraceure	In C.	V.IARDS VPS	BU PRG)
FINT	terraceure	In C.	V.IARDS VPS	BU PRG)
FLAC LIST	terraceure	In C.	V.IARDS VPS	MDC PRG)
GENTRY	terraceure	In C.	V.IARDS VPS	RECA PRG)
GORECALLS	terraceure	In C.	V.IARDS VPS	MDC PRG)
GOTOREC	terraceure	In C.	V.IARDS VPS	MDC PRG)
NLP	terraceure	In C.	V.IARDS VPS	MDP PRG)
LISTPOP	terraceure	In C.	V.IARDS VPS	MDP PRG)
LIST FILES	terraceure	In C.	V.IARDS VPS	BU PRG)
LIST SELECT	terraceure	In C.	V.IARDS VPS	BU PRG)
MAIN MENU	terraceure	In C.	V.IARDS VPS	BU PRG)
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MPS CREP	terraceure	In C.	V.IARDS VPS	MDC PRG)
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PAGE POP	terraceure	In C.	V.IARDS VPS	UTIL PRG)
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POPALL	terraceure	In C.	V.IARDS VPS	MDC PRG)
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[illegible]

## Procedure files:

NP5\_PROD.PRG  
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NP5\_INTR.PRG  
NP5\_OPEN.PRG  
NP5\_APPE.PRG  
NP5\_EDIT.PRG  
NP5\_BROW.PRG  
NP5\_RECA.PRG  
NP5\_REPO.PRG  
NP5\_UTIL.PRG  
NP5\_BU.PRG  
NP5\_PACK.PRG

**Page 1 of 1**

BACKFILE.DBF  
BU.DBF  
BUFILE  
CORFILE.DBF  
CORIGFILE.DBF  
CORIGINDEX.DBF  
CORIGORD.DBF  
SPACK.FIL  
STENPFIL.DBF  
ACTIVITY.DBF  
CURRICUL.DBF  
DIRECTOR.DBF  
MEMBERS.DBF  
MPS.MSC.DBF

• 2011 Report of the 11th

**ACTIVITY.CDX**  
**CUMULC.CDX**

**Report for #1:**

REPORT FOR FBI  
LAPTHAVE  
CLAS\_CTS.FRI  
DECALLACHY FOR

Other titles:

DIRECTOR, FBI  
 DIRECTOR, FBI  
 DIRECTOR, FBI  
 DIRECTOR, FBI





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      UNK STRING                                1528W 1531= 1538 1550+
      MPS_PRCG.PRG
Y      MPS_INTR.PRG                            169 171
I      MPS_INTR.PRG                            170W 171= 172

System: MPSC PATIENT TRACKING & RECALL SYS
Author: LCDR Timothy P. Steele, MSC, USN
01/28/92 09:01:11
Macro Summary

-----
There were no macros defined to FndDoc

-----
Macros Not Defined to FndDoc

-----
CASHFILE
CAPFILE
CDLFILE
CLINFILE
COLDFILE
CORRESPONDENCE
CPACK.FIL
COPYNAME

System: MPSC PATIENT TRACKING & RECALL SYS
Author: LCDR Timothy P. Steele, MSC, USN
01/28/92 09:01:11
Array Summary
=====

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[illegible]

```

348 0 16.42 SAY ""
349 ""
350 --Allow either the number or the first letter of a main menu item.
351 SET INTENSITY OFF
352 GET CURSOR ON
353 choice = ""
354 DO WHILE .NOT. (choice 0 "0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ")
355 choice = ""
356 ON KEY LABEL 61 DO NIP WITH "noin"
357 READ
358 0 14.42 GET choice PICTURE "I"
359 READ
360 ENDDO
361 SET INTENSITY ON
362 ""
363 --Number becomes first letter of menu selection.
364 340 1 IF choice 0 "01234567"
365 choice = SUBSTR("ABCDEFGHIJKLMNOPQRSTUVWXYZ",VAL( choice ) + 1,1)
366 ENDOIF
367 RETURN
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436 n1      Called by: NP5SC.PRS
437 n1
438 n1
439 n1      Calls: DEF_BU
440 n1      (procedure in NP4_PROC.PRS)
441 n1
442 PROCEDURE with:
443   -- Backup databases prior to quitting
444   PRIVATE RDBM.orig_half
445   RDBM = 17
446   SET CURSOR OFF
447   SET CUR TO IN/M/N/U
448   16.0 CLEAR TO 23.79
449   16.0 SAY "Backing up databases files to hard disk ..."
450   SELECT 1
451   SET ORDER TO 1
452   orig = "VENDERS.DBF"
453   buf = "INDI.BU.DBF"
454   DO def_bu WITH RDBM,orig,buf
455   SELECT 2
456   SET ORDER TO 1
457   orig = "ACTIVITY.DBF"
458   buf = "ACT.BU.DBF"
459   DO def_bu WITH RDBM,orig,buf
460   SELECT 3
461   SET ORDER TO 1
462   orig = "CURRENT.DBF"
463   buf = "CUR.BU.DBF"
464   DO def_bu WITH RDBM,orig,buf
465   SELECT 4
466   orig = "DIRECTOR.DBF"
467   buf = "DIR.BU.DBF"
468   DO def_bu WITH RDBM,orig,buf
469   RETURN
470 n1 EOF: NP5SC.PRS

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1  * 1. This program is a modification of the program in the file C:\VMS\MPS\APPE.PRG.
2  *
3  * Procedure file: C:\VMS\MPS\APPE.PRG
4  *
5  * Price & Fnc: MPS.SAV1
6  * MPS.SAV2
7  * MPS.SAV3
8  * MPS.CHECK
9  *
10 * Set by: MPS.DC.PRG
11 *
12 * Call: MPS.FORM1
13 * MPS.FORM2
14 * MPS.FORM3
15 * MPS.FORM4
16 * MPS.SAV1
17 * MPS.SAV2
18 * MPS.SAV3
19 * MPS.STOR
20 * MPS.STOR
21 * MPS.KEYS
22 * MPS.KEYS
23 * MPS.CHECK
24 * MPS.CHECK
25 * MPS.REPL
26 *
27 * Documented 01/28/92 at 09:00
28 *
29 * Program: MPS.APPE.PRG (append record module)
30 * PRIVATE MOD,RECUM,RECMOFS,ISLBT,ISLBT,ISLBT,ISLBT,ISLBT
31 * ---Initialize local memory variables.
32 MOD = PROMPT
33 RECMOFS = 0
34 STORE F. TO ISLBT,ISLBT,ISLBT,ISLBT,ISLBT,ISLBT
35 ISLBT = F.
36 APP = F.
37 APP = F.
38 * ---Set CapLock off
39 * CAPLOCK(F.)
40 * ---Select input form
41 DO CASE
42 CASE choice = "1"
43 DO nos.forall
44 CASE choice = "2"
45 DO nos.forall
46 CASE choice = "3"
47 DO nos.forall
48 CASE choice = "4"
49 77 CHR(7)
50 WAIT "DIRECTOR can only be edited" WINDOW TIMEOUT 2
51 RETURN
52 ENDCASE
53 SET COLOR TO W/M,N/M
54 * ---Start by adding one record.
55 choice = returnkey
56 * ---The following loop is really a "REPEAT/UNTIL (cond)".
57 DO WHILE .T.
58 ON KEY LABEL 1 DO hip WITH "App"
59 IF choice = returnkey
60 * ---Add another record.
61 RECMOFS = RECMOFS + 1
62 * ---Initialize memory variables with blanks.
63 * ---Initialize memory variables with blanks.
64 * ---Initialize memory variables with blanks.
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88 * ---Initialize memory variables with blanks.

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89 * ---Check for duplicate key in master file.
90 SEEK APP
91 IF EOF()
92 * ---No duplicate key found, so leave.
93 EXIT
94 * ---found a duplicate record in the file.
95 DO CASE
96 CASE choice = "1"
97 77 CHR(7)
98 WAIT "DUPLICATE SSM. Change value to proceed." WINDOW TIMEOUT
99 *
100 CASE choice = "2"
101 77 CHR(7)
102 WAIT "DUPLICATE UIC. Change value to proceed." WINDOW TIMEOUT
103 *
104 CASE choice = "3"
105 77 CHR(7)
106 WAIT "DUPLICATE Curriculum. Change value to proceed."
107 WINDOW TIMEOUT 2
108 ENDCASE
109 ENDOF
110 IF ISLBT
111 ISLBT = .T.
112 ELSE
113 DO nos.gets
114 * ---Loop until Add, Edit, or Finished is selected.
115 DO stalltime WITH ISLBT,RECMOFS,ISLBT
116 * ---Loop until Add, Edit, or Finished is selected.
117 DO WHILE .T.
118 SET CURSOR OFF
119 @ MOD,0 SAY "APPEND, (Return)=add, another (E)dit (F)inished "
120 @ MOD,0 SAY "SPACE (24) COLOR W/M"
121 DO GETKEY WITH choice,"EF"delirecordreturnkey
122 DO CASE
123 CASE choice = delirecord
124 * ---Toggle ISLBT
125 ISLBT = .NOT. ISLBT
126 DO stalltime WITH ISLBT,RECMOFS,ISLBT
127 CASE choice = "E"
128 * ---Re-edit the record.
129 ISLBT = .F.
130 SET CURSOR ON
131 SET CURSOR DN
132 CASE choice = "F"=returnkey
133 * ---Finished. Add another.
134 IF .NOT. ISLBT
135 DO nos.check
136 ENDOF
137 IF ISLBT
138 * ---Reset offset so as not to increment.
139 RECMOFS = RECMOFS - 1
140 * ---Save the master values.
141 APPEND BLANK
142 DO nos.del
143 ISLBT = .F.
144 SET CURSOR ON
145 ENDOF
146 * ---Condition to exit inner loop.
147 IF choice = "EF"=returnkey
148 ENDOF
149 * ---Condition to exit outer loop.
150 IF choice = "F"
151 EXIT
152 ENDOF
153 * ---Condition to exit outer loop.
154 IF choice = "F"
155 * ---Close DATABASES
156 * ---SET VIEW TO RELATE
157 * ---SELECT Subarea
158 * ---SELECT Subarea
159 * ---SELECT Subarea
160 * ---SELECT Subarea
161 * ---SELECT Subarea
162 * ---SELECT Subarea
163 ENDOF
164 ISLBT = ISLBT + RECMOFS
165 * ---Close DATABASES
166 * ---SET VIEW TO RELATE
167 * ---SELECT Subarea
168 * ---SELECT Subarea
169 * ---SELECT Subarea
170 * ---SELECT Subarea
171 * ---SELECT Subarea
172 * ---SELECT Subarea
173 * ---SELECT Subarea
174 * ---SELECT Subarea

```

```

175 PROCEDURE nos.sav1
176 * ---Using MEMBERS.DBF
177 SET COLOR TO W/M
178 * ---Using MEMBERS.DBF
179 * ---Using MEMBERS.DBF
180 * ---Using MEMBERS.DBF
181 * ---Using MEMBERS.DBF
182 * ---Using MEMBERS.DBF
183 * ---Using MEMBERS.DBF
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256 * ---Using MEMBERS.DBF
257 * ---Using MEMBERS.DBF
258 * ---Using MEMBERS.DBF
259 * ---Using MEMBERS.DBF
260 * ---Using MEMBERS.DBF
261 * ---Using MEMBERS.DBF

```

```

242 WINDOW TIMEOUT 2
243 isolated = .T.
244 ENDIF
245 CASE objarea = "3"
246 IF LEN(ALLTRIM(secr_name)) < 3) OR (EMPTY(ALLTRIM(secr_name)))
247 ?? Chr(7)
248 WAIT "Incomplete or missing data. Record not saved."
249 WINDOW TIMEOUT 2
250 isolated = .T.
251 ENDIF
252 DECF
253 RETURN
254 * EOF, MPS_APPE.PRG

```

```

90      ENDIF
91      CASE editchoice = "5"
92      * ---Save a record
93      NO DELETE WITH RMU,recnum,lastname
94      savedit = .F.
95      CASE editchoice = "6"
96      * ---Next record.
97      oldrecnum = RECORD()
98      SKIP + 1
99      IF EOF()
100      NO savedit WITH RMU,oldrecnum
101      ELSE
102      DO saveac
103      savedit = .F.
104      ENDIF
105      CASE editchoice = "7"
106      * ---Previous record.
107      oldrecnum = RECORD()
108      SKIP -1
109      IF EOF()
110      NO savedit WITH RMU,oldrecnum
111      ELSE
112      DO saveac
113      savedit = .F.
114      ENDIF
115      CASE editchoice = "8"
116      * ---Edit the record.
117      savedit = .T.
118      NO nextstor
119      oldrecnum = RECORD()
120      NO CASE
121      CASE editarea = "1"
122      keynum = nsn
123      CASE editarea = "2"
124      keynum = mchib
125      CASE editarea = "3"
126      keynum = occur_name
127      ENDCASE
128      NO WHILE .T.
129      @ RMU, @ SAY "EDIT: Press (Esc) to Abort",SPACE(32) COLOR 14/16/18
130      SET CURSOR ON
131      * ---Enter key field values.
132      NO nextkey WITH cur,tablename,unique
133      IF cur = keynum 66if original key value
134      EXIT
135      ELSE
136      * ---No duplicate key found, so leave.
137      SET DELETED ON
138      GO oldrecnum
139      EXIT
140      ENDIF
141      IF !blank OR .NOT. !unique
142      EXIT
143      ENDIF
144      * ---Check for duplicate key in master file.
145      SET DELETED OFF
146      SEEK cur
147      IF EOF()
148      * ---No duplicate key found, so leave.
149      SET DELETED ON
150      GO oldrecnum
151      EXIT
152      ELSE
153      * ---Found a duplicate record in the file.
154      NO CASE
155      CASE editarea = "1"
156      ? CHR(7)
157      WAIT "DUPLICATE SN. Change value to proceed." WINDOW ,
158      TIMEOUT 2
159      CASE editarea = "2"
160      ? CHR(7)
161      WAIT "DUPLICATE UIC. Change value to proceed." WINDOW ,
162      TIMEOUT 2
163      CASE editarea = "3"
164      ? CHR(7)
165      WAIT "DUPLICATE CURRICULUM. Change value to proceed." ,
166      WINDOW ,
167      TIMEOUT 2
168      ENDCASE
169      GO oldrecnum
170      ENDIF
171      ENDOO
172      IF !blank
173      deleted = .T.
174      ELSE
175      DO nos.gets
176      ENDIF
177      IF NOT LASTKEY() = 27
178      DO nos.reset
179      IF editarea = "1"
180      DO updateac
181

```

```

90      ENDIF
91      CASE editchoice = "5"
92      * ---Save a record
93      NO DELETE WITH RMU,recnum,lastname
94      savedit = .F.
95      CASE editchoice = "6"
96      * ---Next record.
97      oldrecnum = RECORD()
98      SKIP + 1
99      IF EOF()
100      NO savedit WITH RMU,oldrecnum
101      ELSE
102      DO saveac
103      savedit = .F.
104      ENDIF
105      CASE editchoice = "7"
106      * ---Previous record.
107      oldrecnum = RECORD()
108      SKIP -1
109      IF EOF()
110      NO savedit WITH RMU,oldrecnum
111      ELSE
112      DO saveac
113      savedit = .F.
114      ENDIF
115      CASE editchoice = "8"
116      * ---Edit the record.
117      savedit = .T.
118      NO nextstor
119      oldrecnum = RECORD()
120      NO CASE
121      CASE editarea = "1"
122      keynum = nsn
123      CASE editarea = "2"
124      keynum = mchib
125      CASE editarea = "3"
126      keynum = occur_name
127      ENDCASE
128      NO WHILE .T.
129      @ RMU, @ SAY "EDIT: Press (Esc) to Abort",SPACE(32) COLOR 14/16/18
130      SET CURSOR ON
131      * ---Enter key field values.
132      NO nextkey WITH cur,tablename,unique
133      IF cur = keynum 66if original key value
134      EXIT
135      ELSE
136      * ---No duplicate key found, so leave.
137      SET DELETED ON
138      GO oldrecnum
139      EXIT
140      ENDIF
141      IF !blank OR .NOT. !unique
142      EXIT
143      ENDIF
144      * ---Check for duplicate key in master file.
145      SET DELETED OFF
146      SEEK cur
147      IF EOF()
148      * ---No duplicate key found, so leave.
149      SET DELETED ON
150      GO oldrecnum
151      EXIT
152      ELSE
153      * ---Found a duplicate record in the file.
154      NO CASE
155      CASE editarea = "1"
156      ? CHR(7)
157      WAIT "DUPLICATE SN. Change value to proceed." WINDOW ,
158      TIMEOUT 2
159      CASE editarea = "2"
160      ? CHR(7)
161      WAIT "DUPLICATE UIC. Change value to proceed." WINDOW ,
162      TIMEOUT 2
163      CASE editarea = "3"
164      ? CHR(7)
165      WAIT "DUPLICATE CURRICULUM. Change value to proceed." ,
166      WINDOW ,
167      TIMEOUT 2
168      ENDCASE
169      GO oldrecnum
170      ENDIF
171      ENDOO
172      IF !blank
173      deleted = .T.
174      ELSE
175      DO nos.gets
176      ENDIF
177      IF NOT LASTKEY() = 27
178      DO nos.reset
179      IF editarea = "1"
180      DO updateac
181

```



```

90 n ---Repeat record pointer.
91 DO WHILE choice = "w" OR choice = "u" OR choice = "r"
92 IF choice = "w" THEN
93   SKIP -1
94   DO CASE
95     CASE NOF(1)
96       SOTO TOP
97     CASE ROW > rowcount
98       ROW = ROW + 1
99     OTHERWISE
100      SKIP
101    ENDCASE
102 ELSE
103   SKIP
104   DO CASE
105     CASE OF(1)
106       SOTO BOTTOM
107     CASE ROW < rowcount
108       ROW = ROW - 1
109     OTHERWISE
110      SKIP -1
111    ENDCASE
112 ENDIF
113 @ ROW,0 SAY CHR(16) "A record"
114 DO SETPTR WITH choice,rowcount
115 ENDSO
116 n ---Prompt line selections.
117 DO CASE
118   CASE choice = "return"
119     IF rowcount = 39 OR rowcount = CLEAR
120       @ .0,40 SAY DATE() COLOR M/V
121       @ .0,48 SAY TIME() COLOR M/V
122     SET DISPLAY TO EADS
123   OTHERWISE
124     CLOSE INTASKES
125     SELECT SUBAREA
126     VIEW TO RELATES
127     SELECT SUBAREA
128     EXIT
129   OTHERWISE
130     CASE choice = "q"
131       n ---Find a record.
132       DO FINDS WITH rowcount,choice
133       IF choice = "o"
134         rowcount = RECORD()
135         nseek WITH rowcount
136       IF EOF()
137         DO GOTO WITH rowcount,UNIT
138       @ rowcount,0 CLEAR
139       SOTO rowcount
140     ELSE
141       rowcount = RECORD()
142       repeat = .T.
143     ENDIF
144   CASE choice = "c"
145     @ rowcount,0 CLEAR
146     CASE choice = "e"
147       DO DELETE WITH rowcount,rowcount,repeat
148       IF repeat > 0
149         rowcount = RECORD()
150         repeat = .T.
151       ENDIF
152   CASE choice = "n"
153     n ---Change screen display mode
154     DO VSCREEN
155     repeat = .T.
156   CASE choice = "d"
157     n ---Delete the record.
158     IF DELETED()
159       RECALL
160     ELSE
161       DO CASE
162         CASE delete = "1"
163           DELETE
164         CASE delete = "2"
165           SELECT A
166             multic = activitv,ulc
167           SET ORDER TO 5
168           SEEK multic
169           IF NOT FOUND()
170             SET ORDER TO Endorder
171             SELECT B
172             DELETE
173           ENDIF
174         IF FOUND()
175           DELETE

```

enter symbol

see excluded for speed on 80286

find -

trac



```

87 (recall_3 < GCONTH(DATE(1), -1)+9) ;
88 (AND, (DPTPT(recall_4)))
89 CNT = "4"
90 DO gorcalls
91 N ---be recall at beginning of 12th month since last_12
92 SET FILTER TO (last_12 < GCONTH(DATE(1), -12)) ;
93 (AND, (members_recall_2 < GCONTH(DATE(1), -1)+9) ;
94 (AND, (NOT DPTPT(recall_3)) AND, (DPTPT(recall_3)))
95 CNT = "3"
96 DO gorcalls
97 N ---be recall at beginning of 12th month since last_12
98 SET FILTER TO (last_12 < GCONTH(DATE(1), -11)) ;
99 (AND, (members_recall_1 < GCONTH(DATE(1), -1)+9) ;
100 (AND, (NOT DPTPT(recall_1)) AND, (DPTPT(recall_1)))
101 CNT = "2"
102 DO gorcalls
103 N ---be recall at beginning of 12th month since last_12
104 SET FILTER TO (last_12 < GCONTH(DATE(1), -10)) ;
105 (AND, (DPTPT(recall_1)))
106 CNT = "1"
107 DO gorcalls
108 (PRINTINT = F.
109 ENDDO
110 ON ESCAPE
111 SET CURSOR ON
112 ENDIF
113 ENDOF
114 ON KEY = 315
115 SET FILTER TO
116 SET TESTNAME TO
117 CASE choice = "2" OR choice = "R"
118 SET CURSOR OFF
119 SET COLOR TO W/N
120 DO rec_lists
121 CASE choice = "3" OR choice = "Y"
122 SET CURSOR OFF
123 SET COLOR TO W/N
124 @ 24,0 SAY "WORKING ..." COLOR W/N
125 DO ops_crc
126 ENDCASE
127 ENDDO
128 IF
129 @ 129,0
130 Procedure: RECALLS_MENU
131
132 @ 131,0
133 Called by: MPS_RECA.PMG
134
135 @ 133,0
136
137 @ 135,0
138 Procedure recalls_menu
139
140 @ 137,0
141 PRIVATE COL
142 CLEAR
143 @ 139,0 SAY DATE(1) COLOR W/N
144 @ 141,0 SAY " " COLOR W/N
145 @ 143,0 SAY " " COLOR W/N
146 @ 145,0 SAY " " COLOR W/N
147 @ 147,0 SAY " " COLOR W/N
148 @ 149,0 SAY " " COLOR W/N
149 @ 151,0 SAY " " COLOR W/N
150 @ 153,0 SAY " " COLOR W/N
151 @ 155,0 SAY " " COLOR W/N
152 @ 157,0 SAY " " COLOR W/N
153 @ 159,0 SAY " " COLOR W/N
154 @ 161,0 SAY " " COLOR W/N
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157 @ 167,0 SAY " " COLOR W/N
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160 @ 173,0 SAY " " COLOR W/N
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172 @ 197,0 SAY " " COLOR W/N
173 @ 199,0 SAY " " COLOR W/N
174 @ 201,0 SAY " " COLOR W/N
175 @ 203,0 SAY " " COLOR W/N
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275 @ 403,0 SAY " " COLOR W/N
276 @ 405,0 SAY " " COLOR W/N
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302 @ 457,0 SAY " " COLOR W/N
303 @ 459,0 SAY " " COLOR W/N
304 @ 461,0 SAY " " COLOR W/N
305 @ 463,0 SAY " " COLOR W/N
306 @ 465,0 SAY " " COLOR W/N
307 @ 467,0 SAY " " COLOR W/N
308 @ 469,0 SAY " " COLOR W/N
309 @ 471,0 SAY " " COLOR W/N
310 @ 473,0 SAY " " COLOR W/N
311 @ 475,0 SAY " " COLOR W/N
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314 @ 481,0 SAY " " COLOR W/N
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320 @ 493,0 SAY " " COLOR W/N
321 @ 495,0 SAY " " COLOR W/N
322 @ 497,0 SAY " " COLOR W/N
323 @ 499,0 SAY " " COLOR W/N
324 @ 501,0 SAY " " COLOR W/N
325 @ 503,0 SAY " " COLOR W/N
326 @ 505,0 SAY " " COLOR W/N
327 @ 507,0 SAY " " COLOR W/N
328 @ 509,0 SAY " " COLOR W/N
329 @ 511,0 SAY " " COLOR W/N
330 @ 513,0 SAY " " COLOR W/N
331 @ 515,0 SAY " " COLOR W/N
332 @ 517,0 SAY " " COLOR W/N
333 @ 519,0 SAY " " COLOR W/N
334 @ 521,0 SAY " " COLOR W/N
335 @ 523,0 SAY " " COLOR W/N
336 @ 525,0 SAY " " COLOR W/N
337 @ 527,0 SAY " " COLOR W/N
338 @ 529,0 SAY " " COLOR W/N
339 @ 531,0 SAY " " COLOR W/N
340 @ 533,0 SAY " " COLOR W/N
341 @ 535,0 SAY " " COLOR W/N
342 @ 537,0 SAY " " COLOR W/N
343 @ 539,0 SAY " " COLOR W/N
34
```

NPS RECA-PRG 1 of 3

```

347 keystrokes = "EFGH" upperwindow offset updown updown returnkey
348 rctop = 1
349 rowbottom = 21
350 rowstart = rowbottom + 2
351 shiftrct = rowbottom - rowtop + 1
352 GOTO TOP
353 m = ---Initialize local variables.
354 ROW = rowtop
355 rctime = rowtop
356 rowcount = rowcount
357 repeatint = 1
358 STORE F TO leadedit warn cnt
359 m = ---Perform VIEW OF recall fields.
360 CLEAR
361 m = ---The following loop is really a "REPEAT/UNTIL (cond)".
362 DO WHILE .T.
363   ON KEY LABEL 11 DO NIP WITH "Br"
364   IF repeatint = rowcount
365     GOTO rowcount
366     DO recdisplay WITH (rowtop, shiftrct)
367     GOTO rowcount
368     IF leadedit = .F.
369       ROW = rowtop
370       ENDIF
371     ENDIF
372     leadedit = .F.
373     repeatint = .F.
374   ENDIF
375   SET COLOR TO W/N/N/W
376   SET CURSOR OFF
377   @ rowcount-1,0 SAY rowcount
378   @ rowcount,0 SAY 1
379   * (P)key RECALLS, (E)dit (F)ind (State) (A)rows (P)dn *
380   * (P)key (Return) = COLOR W/N/C
381   @ ROW,0 SAY CHR(16) 64 bit record pointer
382   choice = "n"
383   DO editkey WITH choice, keystrokes
384   m = ---Reposition record pointer.
385   DO WHILE choice @ narrowdownnarrow
386     @ ROW,0 SAY " "
387     IF choice = narrow
388       SKIP -1
389     ELSE
390       DO CASE
391         CASE ROWF1
392           GOTO TOP
393         CASE ROW > rowtop
394           ROW = ROW - 1
395         OTHERWISE
396           SKIP
397       END CASE
398     SKIP
399     DO CASE
400       CASE EOF1
401         GOTO BOTTOM
402       CASE ROW < rowbottom
403         ROW = ROW + 1
404       OTHERWISE
405         SKIP -1
406       END CASE
407     ENDIF
408     @ ROW,0 SAY CHR(16)
409     DO editkey WITH choice, keystrokes
410     END DO
411     m = ---Prompt line selections.
412     DO CASE
413       CASE choice = returnkey
414         IF rowbottom = 39 .OR. rowbottom = 44
415           CLEAR
416           @ 0,40 SAY DATE() COLOR W/N
417           @ 0,48 SAY " = COLOR W/N
418           SET DISPLAY TO EGA25
419         ENDIF
420       OTHERWISE
421         EXIT
422       CASE choice = "n"
423         IF leadedit = .F.
424           repeatint = 1.
425         ELSE
426           ?? CHR(7)
427         ENDIF
428         WAIT "Mode change not available during editing." WINDOW TIMEOUT 1
429       CASE choice = "e"
430         recalculat = RECALC1
431         IF ( ! warn cnt )
432           DO warn window WITH warn cnt
433         ENDIF
434       SAVE SCREEN
435     END CASE

```

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435 DO EDIT WITH IASDIT
436 IF RECALLSET = RECALL() AND .NOT. IASDIT
437     RESTORE SCREEN
438 ELSE
439     n ---Display the screen.
440     SET COLON TO M/M,M/N
441     CLEAR
442     50 RECALLSET
443     n ---Do not reposition record pointer.
444     IASDIT = .T.
445     RECALLSET = .T.
446     ENDIF
447     CASE choice = "r"
448     n ---find a record.
449     DO RECALLS WITH RECALLSET, choice
450     IF choice > "0"
451         RECALLSET = RECALL()
452         DO .05 SEEK WITH RECALLSET
453         IF EOF()
454             DO SWIPE WITH RECALLSET, "No find."
455             WAIT
456             RECALLSET, 0 CLEAR
457             50 RECALLSET
458     ELSE
459         RECALLSET = RECALL()
460         RECALLSET = .T.
461     ENDIF
462     ENDIF
463     CASE choice = 0 CLEAR
464     CASE choice = "s"
465     DO DISPLAY WITH RECALLSET, RECALLS, IASDIT
466     IF RECALLS > 0
467         RECALLSET = RECALL()
468         RECALLSET = .T.
469     ENDIF
470     CASE choice = page
471     IF .NOT. EOF()
472         GOTO RECALLSET
473         SKIP IASDIT
474         IF EOF()
475             GOTO BOTTOM
476         ENDIF
477         RECALLSET = RECALL()
478         RECALLSET = .T.
479     ENDIF
480     CASE choice = page
481     IF .NOT. EOF()
482         GOTO RECALLSET
483         SKIP IASDIT
484         IF EOF()
485             GOTO TOP
486         ENDIF
487         RECALLSET = RECALL()
488         RECALLSET = .T.
489     ENDIF
490     ENDCASE
491     ENDDO
492     GOTO TOP
493     RETURN
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[illegible]

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901 select_senct2 = (senctsenct2/ntctsenct) * 100
902 clear
903 = (senctsenct3/ntctsenct) * 100
904
905 REPORT FORM clas.cts
906 @ 22,30 SAY "Print this report? (Y/N)"
907 SET CURSOR ON
908 @ 22,30 SAY "Y"
909 IF choice = "Y"
910   @ 22,30 SAY "Y"
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176 SET COLOR TO 40/NH/M/N
177 0 5, 3 SAV " " (F1) for help"
178 0 5, 0 SAV "Z" COLOR GR/N
179 0 4, 0 SAV "Z" COLOR GR/N
180 0 4, 4 SAV "Alt+F1" COLOR GR/N
181 COL = 34
182 0 5,COL + 3 SAV "0. Exit to exit menu"
183 0 5,COL + 3 SAV "Z" COLOR GR/N
184 0 6,COL + 1, Operational readiness"
185 0 6,COL + 3 SAV "Z" COLOR GR/N
186 0 7,COL SAV "2. Numbers (all)"
187 0 7,COL + 3 SAV "Z" COLOR GR/N
188 0 8,COL SAV "3. members by class"
189 0 8,COL + 14 SAV "C" COLOR GR/N
190 0 9,COL SAV "4. members by UIC (all)"
191 0 9,COL + 14 SAV "Z" COLOR GR/N
192 0 10,COL SAV "5. members by Para status"
193 0 10,COL + 14 SAV "Z" COLOR GR/N
194 0 11,COL SAV "4. Activities"
195 0 11,COL + 3 SAV "Z" COLOR GR/N
196 0 12,COL SAV "7. color columns"
197 0 12,COL + 5 SAV "Z" COLOR GR/N
198 0 13, 33 SAV "select : "
199 SET CURSOR ON
200 0 14, 42 SAV ""
201 RETURN
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[illegible]

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177 CASE merpmt = "Title change"
178     Run Time
179 END CASE
180 RELEASE POPUP date_time
181 RETURN
182 * * * * *
183 PROCEDURE PACK_POP
184 * * * * *
185 CALL BY: MFS_UTIL.MFS
186 * * * * *
187 CALLS: DEACTPOP
188         * WARNING
189         * MFS_PACK.MFS
190         * MFS_OPEN.MFS
191 * * * * *
192 * * * * *
193 * * * * *
194 PROCEDURE pack_pop
195 * * * * *
196 PRIVATE origid1, origids
197 MESSAGE "PopUp pack_pop FROM 4, 35 TO 11, 44 TITLE 'Select'";
198 MESSAGE "Scroll or arrow highlighted letter to select title(s)";
199 COLOR W/BS W/BS B/BS B/BS W/BS W/BS W/BS
200 DEFINE BAR 1 OF pack_pop PROMPT "Numbers"
201 DEFINE BAR 2 OF pack_pop PROMPT "Activity"
202 DEFINE BAR 3 OF pack_pop PROMPT "Curriculum"
203 DEFINE BAR 4 OF pack_pop PROMPT "Curriculum"
204 ON SELECTION POPUP pack_pop DO deactpop
205 merpmt = ""
206 * * * * *
207 * * * * *
208 * * * * *
209 * * * * *
210 * * * * *
211 CASE merpmt = "all"
212     CLOSE DATABASES
213     origid1 = "MEMBERS.DBF"
214     origids = "MEMBERS.CDB"
215     DO warning WITH origid1, origids
216     IF choice() = ""
217         RETURN
218     ENDIF
219     origid1 = "ACTIVITY.DBF"
220     origids = "ACTIVITY.CDB"
221     DO nosack WITH origid1, origids
222     origid1 = "CURRICUL.DBF"
223     origids = "CURRICUL.CDB"
224     DO nosack WITH origid1, origids
225     n ---Close the database and indexes.
226     CLOSE DATABASES
227     DO nosack
228     SELECT LabArea
229 CASE merpmt = "Numbers"
230     CLOSE DATABASES
231     origid1 = "MEMBERS.DBF"
232     origids = "MEMBERS.CDB"
233     DO warning WITH origid1, origids
234     n ---Close the database and indexes.
235     CLOSE DATABASES
236     DO nosack
237     SELECT LabArea
238 CASE merpmt = "activity"
239     CLOSE DATABASES
240     origid1 = "ACTIVITY.DBF"
241     origids = "ACTIVITY.CDB"
242     DO warning WITH origid1, origids
243     n ---Close the database and indexes.
244     CLOSE DATABASES
245     DO nosack
246     SELECT LabArea
247 CASE merpmt = "Curriculum"
248     CLOSE DATABASES
249     origid1 = "CURRICUL.DBF"
250     origids = "CURRICUL.CDB"
251     DO warning WITH origid1, origids
252     n ---Close the database and indexes.
253     CLOSE DATABASES
254     DO nosack
255     SELECT LabArea
256 END CASE
257 RELEASE POPUP pack_pop
258 RETURN
259 * * * * *
260 * * * * *
261 PROCEDURE WARNING
262 * * * * *
263 CALL BY: PACK_POP
264 * * * * *
265 * * * * *
266 * * * * *
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245 11      Calls: GETKEY      Procedure in MPS_PROG.PRG)
246 11      , MPS_PROG.PRG
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[illegible]

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332 SET CURSOR ON
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527 DIRECTORY ON A, LINE 0.
528 WAIT
529 ENDCASE
530 RELEASE POPUP list.file
531 SET CURSOR ON
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780 IF NOT (EXISTS (SELECT * FROM NPS_BU_BACKUP WHERE BACKUP_DATE = '2000-01-01')) THEN
781   Procedure: NO_BACKUP
782   Called by: REST_POP
783   Procedure in NPS_BU.PKG
784   Uses: TEMPFILE.DBF
785   , SMFILE
786   , SCRIPTFILE.DBF
787   , SCRIPTFILE.DBF
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867   , SCRIPTFILE.DBF

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868   Procedure: NO_BACKUP
869   Called by: REST_POP
870   Procedure in NPS_BU.PKG
871   Uses: TEMPFILE.DBF
872   , SMFILE
873   , SCRIPTFILE.DBF
874   , SCRIPTFILE.DBF
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998   , SCRIPTFILE.DBF
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1000   , SCRIPTFILE.DBF

```

```

1 Procedure file: C:\VMS\NPS_PACK.PKG
2
3 Procedure file: C:\VMS\NPS_PACK.PKG
4
5 Proc 5 Facts: PACK
6
7 Proc 5 Facts: PACK
8
9 Set by: PACK_CHECK
10
11 Procedure in NPS_PACK.PKG
12
13 Procedure in NPS_PACK.PKG
14
15 Procedure in NPS_PACK.PKG
16
17 Procedure in NPS_PACK.PKG
18
19 Procedure in NPS_PACK.PKG
20
21 Procedure in NPS_PACK.PKG
22
23 Procedure in NPS_PACK.PKG
24
25 Procedure in NPS_PACK.PKG
26
27 Procedure in NPS_PACK.PKG
28
29 Procedure in NPS_PACK.PKG
30
31 Procedure in NPS_PACK.PKG
32
33 Procedure in NPS_PACK.PKG
34
35 Procedure in NPS_PACK.PKG
36
37 Procedure in NPS_PACK.PKG
38
39 Procedure in NPS_PACK.PKG
40
41 Procedure in NPS_PACK.PKG
42
43 Procedure in NPS_PACK.PKG
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45 Procedure in NPS_PACK.PKG
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93 Procedure in NPS_PACK.PKG
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139 Procedure in NPS_PACK.PKG
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143 Procedure in NPS_PACK.PKG
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145 Procedure in NPS_PACK.PKG
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147 Procedure in NPS_PACK.PKG
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149 Procedure in NPS_PACK.PKG
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153 Procedure in NPS_PACK.PKG
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155 Procedure in NPS_PACK.PKG
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187 Procedure in NPS_PACK.PKG
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189 Procedure in NPS_PACK.PKG
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191 Procedure in NPS_PACK.PKG
192
193 Procedure in NPS_PACK.PKG
194
195 Procedure in NPS_PACK.PKG
196
197 Procedure in NPS_PACK.PKG
198
199 Procedure in NPS_PACK.PKG
200

```

```

84 DOIF
85
86 Use temp file to delete
87
88 Count for deleted to delete
89
90 Case
91
92 Case NOT delete = 0
93
94 Case NOT delete = 1
95
96 Case NOT delete = 2
97
98 Case NOT delete = 3
99
100 Case NOT delete = 4
101
102 Case NOT delete = 5
103
104 Case NOT delete = 6
105
106 Case NOT delete = 7
107
108 Case NOT delete = 8
109
110 Case NOT delete = 9
111
112 Case NOT delete = 10
113
114 Case NOT delete = 11
115
116 Case NOT delete = 12
117
118 Case NOT delete = 13
119
120 Case NOT delete = 14
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122 Case NOT delete = 15
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124 Case NOT delete = 16
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126 Case NOT delete = 17
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128 Case NOT delete = 18
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130 Case NOT delete = 19
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132 Case NOT delete = 20
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134 Case NOT delete = 21
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136 Case NOT delete = 22
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138 Case NOT delete = 23
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140 Case NOT delete = 24
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142 Case NOT delete = 25
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144 Case NOT delete = 26
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146 Case NOT delete = 27
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148 Case NOT delete = 28
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150 Case NOT delete = 29
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152 Case NOT delete = 30
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154 Case NOT delete = 31
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156 Case NOT delete = 32
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158 Case NOT delete = 33
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160 Case NOT delete = 34
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162 Case NOT delete = 35
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164 Case NOT delete = 36
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166 Case NOT delete = 37
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168 Case NOT delete = 38
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170 Case NOT delete = 39
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172 Case NOT delete = 40
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174 Case NOT delete = 41
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176 Case NOT delete = 42
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178 Case NOT delete = 43
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180 Case NOT delete = 44
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182 Case NOT delete = 45
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184 Case NOT delete = 46
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186 Case NOT delete = 47
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188 Case NOT delete = 48
189
190 Case NOT delete = 49
191
192 Case NOT delete = 50
193
194 Case NOT delete = 51
195
196 Case NOT delete = 52
197
198 Case NOT delete = 53
199
200 Case NOT delete = 54

```



```

3532 CASE percent = "u43"
3533   CLEAR
3534   rcountop = RECDUP()
3535   SET DISP .AY TO EGAS3
3536   rcountop = 19
3537   CASE percent = "u43Z"
3538     IF "CHR(7) = 0 SYS(2004)"
3539       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3540     ELSE
3541       CLEAR
3542       rcountop = RECDUP()
3543       SET DISPLAY TO W4Z5
3544       rcountop = 21
3545     ENDIF
3546   CASE percent = "u43S"
3547     IF "CHR(7) = 0 SYS(2004)"
3548       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3549     ELSE
3550       CLEAR
3551       rcountop = RECDUP()
3552       SET DISPLAY TO W4S0
3553       rcountop = 46
3554     ENDIF
3555   CASE percent = "u43O"
3556     IF "CHR(7) = 0 SYS(2004)"
3557       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3558     ELSE
3559       CLEAR
3560       rcountop = RECDUP()
3561       SET DISPLAY TO W4S0
3562       rcountop = 46
3563     ENDIF
3564   CASE percent = "u43P"
3565     IF "CHR(7) = 0 SYS(2004)"
3566       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3567     ELSE
3568       CLEAR
3569       rcountop = RECDUP()
3570       SET DISPLAY TO W4S0
3571       rcountop = 46
3572     ENDIF
3573   CASE percent = "u43Q"
3574     IF "CHR(7) = 0 SYS(2004)"
3575       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3576     ELSE
3577       CLEAR
3578       rcountop = RECDUP()
3579       SET DISPLAY TO W4S0
3580       rcountop = 46
3581     ENDIF
3582   CASE percent = "u43R"
3583     IF "CHR(7) = 0 SYS(2004)"
3584       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3585     ELSE
3586       CLEAR
3587       rcountop = RECDUP()
3588       SET DISPLAY TO W4S0
3589       rcountop = 46
3590     ENDIF
3591   CASE percent = "u43S"
3592     IF "CHR(7) = 0 SYS(2004)"
3593       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3594     ELSE
3595       CLEAR
3596       rcountop = RECDUP()
3597       SET DISPLAY TO W4S0
3598       rcountop = 46
3599     ENDIF
3600   CASE percent = "u43T"
3601     IF "CHR(7) = 0 SYS(2004)"
3602       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3603     ELSE
3604       CLEAR
3605       rcountop = RECDUP()
3606       SET DISPLAY TO W4S0
3607       rcountop = 46
3608     ENDIF
3609   CASE percent = "u43U"
3610     IF "CHR(7) = 0 SYS(2004)"
3611       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3612     ELSE
3613       CLEAR
3614       rcountop = RECDUP()
3615       SET DISPLAY TO W4S0
3616       rcountop = 46
3617     ENDIF
3618   CASE percent = "u43V"
3619     IF "CHR(7) = 0 SYS(2004)"
3620       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3621     ELSE
3622       CLEAR
3623       rcountop = RECDUP()
3624       SET DISPLAY TO W4S0
3625       rcountop = 46
3626     ENDIF
3627   CASE percent = "u43W"
3628     IF "CHR(7) = 0 SYS(2004)"
3629       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3630     ELSE
3631       CLEAR
3632       rcountop = RECDUP()
3633       SET DISPLAY TO W4S0
3634       rcountop = 46
3635     ENDIF
3636   CASE percent = "u43X"
3637     IF "CHR(7) = 0 SYS(2004)"
3638       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3639     ELSE
3640       CLEAR
3641       rcountop = RECDUP()
3642       SET DISPLAY TO W4S0
3643       rcountop = 46
3644     ENDIF
3645   CASE percent = "u43Y"
3646     IF "CHR(7) = 0 SYS(2004)"
3647       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3648     ELSE
3649       CLEAR
3650       rcountop = RECDUP()
3651       SET DISPLAY TO W4S0
3652       rcountop = 46
3653     ENDIF
3654   CASE percent = "u43Z"
3655     IF "CHR(7) = 0 SYS(2004)"
3656       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3657     ELSE
3658       CLEAR
3659       rcountop = RECDUP()
3660       SET DISPLAY TO W4S0
3661       rcountop = 46
3662     ENDIF
3663   CASE percent = "u43"
3664     IF "CHR(7) = 0 SYS(2004)"
3665       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3666     ELSE
3667       CLEAR
3668       rcountop = RECDUP()
3669       SET DISPLAY TO W4S0
3670       rcountop = 46
3671     ENDIF
3672   CASE percent = "u43"
3673     IF "CHR(7) = 0 SYS(2004)"
3674       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3675     ELSE
3676       CLEAR
3677       rcountop = RECDUP()
3678       SET DISPLAY TO W4S0
3679       rcountop = 46
3680     ENDIF
3681   CASE percent = "u43"
3682     IF "CHR(7) = 0 SYS(2004)"
3683       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3684     ELSE
3685       CLEAR
3686       rcountop = RECDUP()
3687       SET DISPLAY TO W4S0
3688       rcountop = 46
3689     ENDIF
3690   CASE percent = "u43"
3691     IF "CHR(7) = 0 SYS(2004)"
3692       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3693     ELSE
3694       CLEAR
3695       rcountop = RECDUP()
3696       SET DISPLAY TO W4S0
3697       rcountop = 46
3698     ENDIF
3699   CASE percent = "u43"
3700     IF "CHR(7) = 0 SYS(2004)"
3701       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3702     ELSE
3703       CLEAR
3704       rcountop = RECDUP()
3705       SET DISPLAY TO W4S0
3706       rcountop = 46
3707     ENDIF
3708   CASE percent = "u43"
3709     IF "CHR(7) = 0 SYS(2004)"
3710       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3711     ELSE
3712       CLEAR
3713       rcountop = RECDUP()
3714       SET DISPLAY TO W4S0
3715       rcountop = 46
3716     ENDIF
3717   CASE percent = "u43"
3718     IF "CHR(7) = 0 SYS(2004)"
3719       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3720     ELSE
3721       CLEAR
3722       rcountop = RECDUP()
3723       SET DISPLAY TO W4S0
3724       rcountop = 46
3725     ENDIF
3726   CASE percent = "u43"
3727     IF "CHR(7) = 0 SYS(2004)"
3728       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3729     ELSE
3730       CLEAR
3731       rcountop = RECDUP()
3732       SET DISPLAY TO W4S0
3733       rcountop = 46
3734     ENDIF
3735   CASE percent = "u43"
3736     IF "CHR(7) = 0 SYS(2004)"
3737       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3738     ELSE
3739       CLEAR
3740       rcountop = RECDUP()
3741       SET DISPLAY TO W4S0
3742       rcountop = 46
3743     ENDIF
3744   CASE percent = "u43"
3745     IF "CHR(7) = 0 SYS(2004)"
3746       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3747     ELSE
3748       CLEAR
3749       rcountop = RECDUP()
3750       SET DISPLAY TO W4S0
3751       rcountop = 46
3752     ENDIF
3753   CASE percent = "u43"
3754     IF "CHR(7) = 0 SYS(2004)"
3755       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3756     ELSE
3757       CLEAR
3758       rcountop = RECDUP()
3759       SET DISPLAY TO W4S0
3760       rcountop = 46
3761     ENDIF
3762   CASE percent = "u43"
3763     IF "CHR(7) = 0 SYS(2004)"
3764       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3765     ELSE
3766       CLEAR
3767       rcountop = RECDUP()
3768       SET DISPLAY TO W4S0
3769       rcountop = 46
3770     ENDIF
3771   CASE percent = "u43"
3772     IF "CHR(7) = 0 SYS(2004)"
3773       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3774     ELSE
3775       CLEAR
3776       rcountop = RECDUP()
3777       SET DISPLAY TO W4S0
3778       rcountop = 46
3779     ENDIF
3780   CASE percent = "u43"
3781     IF "CHR(7) = 0 SYS(2004)"
3782       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3783     ELSE
3784       CLEAR
3785       rcountop = RECDUP()
3786       SET DISPLAY TO W4S0
3787       rcountop = 46
3788     ENDIF
3789   CASE percent = "u43"
3790     IF "CHR(7) = 0 SYS(2004)"
3791       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3792     ELSE
3793       CLEAR
3794       rcountop = RECDUP()
3795       SET DISPLAY TO W4S0
3796       rcountop = 46
3797     ENDIF
3798   CASE percent = "u43"
3799     IF "CHR(7) = 0 SYS(2004)"
3800       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3801     ELSE
3802       CLEAR
3803       rcountop = RECDUP()
3804       SET DISPLAY TO W4S0
3805       rcountop = 46
3806     ENDIF
3807   CASE percent = "u43"
3808     IF "CHR(7) = 0 SYS(2004)"
3809       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3810     ELSE
3811       CLEAR
3812       rcountop = RECDUP()
3813       SET DISPLAY TO W4S0
3814       rcountop = 46
3815     ENDIF
3816   CASE percent = "u43"
3817     IF "CHR(7) = 0 SYS(2004)"
3818       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3819     ELSE
3820       CLEAR
3821       rcountop = RECDUP()
3822       SET DISPLAY TO W4S0
3823       rcountop = 46
3824     ENDIF
3825   CASE percent = "u43"
3826     IF "CHR(7) = 0 SYS(2004)"
3827       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3828     ELSE
3829       CLEAR
3830       rcountop = RECDUP()
3831       SET DISPLAY TO W4S0
3832       rcountop = 46
3833     ENDIF
3834   CASE percent = "u43"
3835     IF "CHR(7) = 0 SYS(2004)"
3836       WAIT "Error, Vca video adapter required." WINDOW TIMEOUT 2
3837     ELSE
3838       CLEAR
3839       rcountop = RECDUP()
3840       SET DISPLAY TO W4S0
3841       rcountop = 46
3842     ENDIF
3843   CASE
```





[illegible]

```

080 ERROR "3 digit Curriculum Number required."
081 READ
082 label= (" = TRIN( curr_numb ) )
083 over = accur_numb
084 !unitiqu = .T.
085 ENDCASE
086 RETURN
087 *!*****PROGRAM FOR CURRICULUM NUMBER ROUTING TO THE APPROPRIATE INQUIRY ROUTINE *****
088 **!*****
089 ** Procedure: MPS_FORMA1
090 ** Called by: MPS_FORMA2
091 **             , MPS_APPE.PRG
092 **             , MPS_EDIT.PRG
093 **
094 **
095 PROCEDURE nps_forma1
096 CLEAR
097 @ 1,0 TO 14,79 DOUBLE COLOR B/W
098 SET COLOR TO W/N,N/W
099 @ 0, 0 SAY SPACE(80)
100 @ 0,40 SAY DATE() COLOR N/W
101 @ 0,48 SAY - COLOR N/W
102 @ 0, 0 SAY "Record:"
103 @ promptrow,0 SAY promptbar
104 @ 2, 1 SAY "<F1> for Help"
105 @ 2, 2 SAY "<F2> F1" COLOR GR/V
106 SET COLOR TO U/N,N/W
107 @ 3, 3 SAY "Number"s SSN"
108 @ 5, 3 SAY "Last Name"
109 @ 5,40 SAY "First Name"
110 @ 5,70 SAY "M.I."
111 @ 7, 3 SAY "Rank/Rate"
112 @ 7,22 SAY "Service Branch"
113 @ 7,45 SAY "Last T2 Exam"
114 @ 7,70 SAY "Class"
115 @ 8,58 SAY "PU/DD/YV"
116 @ 9, 3 SAY "Pano Status"
117 @ 10, 0 SAY "-"
118 @ 10,40 SAY "-"
119 @ 12, 6 SAY "UIC"
120 RETURN
121 *!*****PROGRAM FOR CURRICULUM NUMBER ROUTING TO THE APPROPRIATE INQUIRY ROUTINE *****
122 **!*****
123 ** Procedure: MPS_FFORMA2
124 ** Called by: MPS_EDIT.PRG
125 **
126 ** Callis: MPS_FFORMA1
127 **             (procedure in MPS_PROD.PRG)
128 **
129 **
130 PROCEDURE nps_fforma2
131 DO nps_forma1
132 @ 1,0 TO 21,79 DOUBLE COLOR B/W
133 @ 3,10, 0 SAY "-"
134 @ 10,40 SAY "-"
135 @ 14, 0 SAY "-"
136 @ 14,40 SAY "-"
137 @ 16,16 SAY "-Dates of Previous Recall Letters Routed To Number-"
138 @ 18, 8 SAY "Recall 1"
139 @ 18,27 SAY "Recall 1"
140 @ 18,46 SAY "Recall 3"
141 @ 18,65 SAY "Recall 4"
142 RETURN
143 *!*****PROGRAM FOR CURRICULUM NUMBER ROUTING TO THE APPROPRIATE INQUIRY ROUTINE *****
144 **!*****
145 ** Procedure: MPS_FFORMB
146 ** Called by: MPS_APPE.PRG
147 **             , MPS_EDIT.PRG
148 **
149 **
150 PROCEDURE nps_fformb
151 CLEAR
152 @ 1,0 TO 9,79 DOUBLE COLOR B/W
153 SET COLOR TO W/N,N/W
154 @ 0, 0 SAY SPACE(80)
155 @ 0, 0 SAY "Record:"
156 @ 0,40 SAY DATE() COLOR N/W
157 @ 0,48 SAY - COLOR N/W
158 @ promptrow,0 SAY promptbar
159 @ 2, 1 SAY "<F1> for Help"
160 @ 2, 2 SAY "<F2> F1" COLOR GR/V
161 SET COLOR TO U/N,N/W
162 @ 3, 4 SAY "UIC"
163 @ 3,15 SAY "Activity Name"
164 @ 4, 4 SAY "Acronym"
165 @ 6, 40 SAY "Point of Contact"
166 RETURN

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[illegible][illegible]

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1321 READ
1322 CASE selc = "31405"
1323 0 12 1A CLEAR TO 13 78
1324 0 11 30 SAV "MPS Student."
1325 0 12 30 SAV "Curriculum Number = "
1326 0 12 45 SAV "MC."
1327 0 12 49 SAV " " - COLOR M/N
1328 0 12 49 SAV MC COLOR M/N
1329 0 12 40 GET scurr_name PICTURE "999" VALID (VAL (scurr_name )) ;
1330 ERROR "If MPS student, Curriculum Number required."
1331 READ
1332 IF LASTKEY() = 27
1333 ENDIF
1334 1344
1335 1344
1336 0 12 49 GET name PICTURE "name"
1337 0 13 35 SAV "Leave blank if unknown" - COLOR RB/Y/N
1338 1344
1339 READ
1340 ENDCASE
1341 RETURN
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406 FUNCTION val_brnch
407 n = ---Validation MEMBERS_BRANCH
408 PARAMETER brnch_d
409 ON KEY LABEL esc RETURN .F.
410 DO WHILE NOT (brnch="USA" - OR. brnch="USA" - OR. brnch="USAC" - OR. brnch="USMC")
411   brnch = " "
412   ACTIVATE POPUP brnch
413   brnch = brnch
414   IF brnch = " "
415     8 7:37 GET brnch
416   CLEAR GETS
417   RETURN .T.
418 ENDDO
419 ON KEY LABEL esc
420 n = ---Validation MEMBERS_BRANCH
421 PROCEDURE, VAL_PANO
422 n =
423 n =
424 n =
425 n =
426 n =
427 n =
428 ENDDO
429 ON KEY LABEL esc
430 n = ---Validation MEMBERS_BRANCH
431 PROCEDURE, VAL_UIC
432 n =
433 n =
434 n =
435 n =
436 n =
437 n =
438 ENDDO
439 ON KEY LABEL esc
440 n = ---Validation MEMBERS_BRANCH
441 PROCEDURE, VAL_UIC
442 n =
443 n =
444 n =
445 n =
446 n =
447 n =
448 n =
449 n =
450 PRIVATE curruca
451 curruca = RECORD()
452 SELECT activity
453 SEEK uicid
454 IF FOUND()
455   SELECT members
456   IF NOT APPX = T.
457     GO RECORD curruca
458   ENDIF
459   RETURN .T.
460 ENDDO
461 DO WHILE .T.
462   DO WHILE NOT FOUND()
463     brnch = " "
464     ACTIVATE POPUP populc
465     SEEK SUBSTR(brnch,1,5)
466   ENDDO
467 ON KEY = 315 RETURN .F.
468 SELECT members
469 IF NOT APPX = T.
470   GO RECORD curruca
471 ENDIF
472   multic = SUBSTR(brnch,1,5)
473   9 12:10 GET multic
474   CLEAR GETS
475   RETURN .T.
476 ENDDO
477 ON KEY = 315
478 n = ---Validation MEMBERS_CURR_MUN
479 n =
480 n =
481 n =
482 n =
483 n =
484 n =
485 FUNCTION val_curr
486 n = ---Validation MEMBERS_CURR_MUN against CURRICUL_CURR_MUN
487 PARAMETER curruca
488 PRIVATE curruca
489 curruca = RECORD()
490 SELECT curruca
491 SEEK curruca
492 IF FOUND()
493   SELECT members

```

NPS\_PROC.PRG 6 of 7

```

1575  ENDIF
1576  ENDIF
1577  RETURN w17, pass
1578  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1579  *
1580  * Procedure: PROCINC
1581  *
1582  * Called by: MPS.RECA.PRG
1583  * REC.LISTS
1584  * PROMPT
1585  *
1586  * Calls: GETKEY
1587  *
1588  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1589  PROCEDURE PROCINC
1590  CLEAR
1591  SET COLOR TO W/M,W/M
1592  8.24 TO 11.35 COLOR W/RB
1593  8.25 SAY - Check the printer ...
1594  9.25 SAY - Is the power on?
1595  10.25 SAY - Is it on-line?
1596  11.25 SAY - Is it set to 12-pitch?
1597  12.25 SAY - Is there enough paper?
1598  13.25 SAY - Is the ribbon OK?
1599  SET CURSOR ON
1600  16.25 SAY "Continue with print job? (y/n)"
1601  Choice = ""
1602  DO GETKEY WITH choice, "Y"
1603  IF choice = "Y"
1604  PRINT "Printed - Choice"
1605  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1606  *
1607  * Procedure: PROCSTOP
1608  *
1609  * Called by: MPS.RECA.PRG
1610  * RECIN
1611  * PROMPT
1612  *
1613  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1614  PROCEDURE PROCSTOP
1615  10.10 TO 11.75 CLEAR
1616  IF wprint = 1
1617  STORE .F. TO wprint
1618  EFFECT
1619  WAIT "Print job aborted." WINDOW TIMEOUT 2
1620  ENDIF
1621  RETURN
1622  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1623  *
1624  * Procedure: PROCJOB
1625  *
1626  * Called by: MPS.RECA.PRG
1627  * REC.LISTS
1628  * RECIN
1629  * PROMPT
1630  *
1631  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1632  PROCEDURE PROCJOB
1633  CLEAR
1634  STORE .F. TO wprint
1635  IF wprint = 1
1636  77 CHR(7)
1637  WAIT "Printer problem. Check the printer." WINDOW TIMEOUT 1
1638  ENDIF
1639  RETURN
1640  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1641  *
1642  * Procedure: SETPPIN
1643  *
1644  * Called by: GORECALLS
1645  * PROMPT
1646  *
1647  * I will choose whether to print the page or not based on the value of the variable PageNo. If PageNo is 1, I will print the page. If PageNo is 2, I will not print the page.
1648  PROCEDURE SETPPIN
1649  IF not .misc.printer = "IBM Proprinter"
1650  777 CHR(27) + CHR(58)
1651  ELSE
1652  777 CHR(27) + "n"
1653  ENDIF
1654  RETURN
1655  * EOF, MPS.PROC.PRG

```

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