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NAVY OCCUPATIONAL HEALTH
INFORMATION MANAGEMENT SYSTEM

NOHIMS

MEDICAL EXAM SCHEDULING MODULE
PROGRAM MAINTENANCE MANUAL

JUNE 1987

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Prepared by
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Medical Exam Scheduling Module
Program Maintenance Manual

June 1987



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PREFACE

Since August 1984, The MITRE Corporation has been supporting the Naval Sea Systems Command (NAVSEA) and the Naval Medical Command (NAVMEDCOM) in their joint efforts to enhance the Navy Occupational Health Information Management System (NOHIMS). NOHIMS, whose initial version was developed at the Naval Health Research Center (NHRC), is a composite of two subsystems: an industrial subsystem and a medical subsystem. The goal of the enhancement effort was to create a comprehensive occupational health and safety system for Navy industrial facilities by expanding upon the original NOHIMS functions and adding modules for hazard deficiency abatement, hazardous material control, injury claims and compensation, and safety and health training. To meet this goal, MITRE developed an enhanced industrial subsystem, referred to as the Occupational Safety and Health Record Keeping System (OSHRKS), using a prototyping approach and a public domain data base management software package, the Veterans Administration's (VA's) FileManager (FileMan).

OSHRKS consists of the following seven modules:

- Environmental Exposure
- Medical Exam Scheduling
- Hazardous Materials Control
- Hazard Deficiency Abatement
- Injury and Compensation Claims
- Safety and Health Training
- Administration

Each NAVSEA facility will use from four to seven of these modules depending on its information needs. The NAVMEDCOM sites require three of the industrial modules and the Administration module in addition to the medical subsystem.

Complete and accurate technical and non-technical documentation was required for each of these modules. This documentation was to describe clearly and accurately the capabilities of OSHRKS--an advanced, online, integrated system based on the use of a data base management system and a programmer tool kit--while also satisfying the Navy's documentation standards. Representatives from various groups within the Navy, working

with members of MITRE's technical staff, created a set of documentation guidelines for the OSHRKS modules. These guidelines specified the title of each document and its content and format.

The following three types of documents have been prepared for each of the first six modules listed above:

- Users' Manual - This manual describes, in non-technical terms, the module's major input and output processes. Examples of reports and displays produced by the module are included. This document is intended for use by the reader who is interested in understanding the module's capabilities.
- Operators' Guide - This guide explains how a user interacts with the module to enter or retrieve data. For each menu option in a module, an overview of the purpose of the option is presented, an example prompt sequence is displayed, and detailed explanations of the user's interactions to specific prompts are discussed. These documents are intended for use by those people who will be entering data into or retrieving data from the module.
- Program Maintenance Manual - This manual describes the software used by the module and is intended for use by the programmer who must maintain or enhance the module's software.

Three additional documents that provide documentation on the Administration module and on system-wide activity have also been prepared. The Primer describes, in general, how a user interacts with a FileMan-based system and enters and retrieves data from the Administration module. The System Manager's Guide provides instructions to the staff that must keep the system operational on a day-to-day basis. Largely, it serves as the Operators' Guide for the Administration module. System management functions needed to keep the other modules operational are also explained in this document. The System-Wide Program Maintenance Manual describes the software used in the Administration module and those software utilities that are used by all modules. This document is intended for use by the maintenance programmer.

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1.0 GENERAL

1.1 Purpose of the Program Maintenance Manual

→ This manual describes the software used by the Medical Exam Scheduling (MES) module of the Naval Sea Systems Command's (NAVSEA's) Occupational Safety and Health Record Keeping System (OSHRKS). An overview of the entire module is presented, followed by detailed descriptions of the routines that support each function in the module. The information in this document is intended to help computer support staff maintain the MES module software. For a management-level view of the MES module, the user is referred to the Medical Exam Scheduling Module Users' Manual. A detailed discussion of how the user interacts with the module is found in the Medical Exam Scheduling Module Operators' Guide.

1.2 References

The following references provide technical information related to the MES module:

- VA FileMan User's Manual, Version 17, Veterans Administration, March 1986
- VA FileMan Programmer's Manual, Version 17, Veterans Administration, March 1986
- OSHRKS System-Wide Program Maintenance Manual
- OSHRKS Primer
- The Medical Exam Scheduling Module Users' Manual
- The Medical Exam Scheduling Module Operators' Guide
- System Manager's Guide

The following publications provide background information on the MES module:

- NOHIMS Medical Exam Scheduling Module Functional Design Specifications
- Navy Occupational Safety and Health (NAVOSH) Program Manual, OPNAV Instructions 5100.23B
- Department of Defense Occupational Health Surveillance Manual, DoD 6055.5-M

1.3 Terms and Abbreviations

The following terms and abbreviations are used in this manual:

- Agency: An Executive Department, as defined in 5 U.S.C. 101, or any employing unit or authority of the Government of the United States not within an Executive Department, to which the provisions of Executive Order 12196 are applicable.
- Appointment: The name used in the text to refer to the Medical Appointment file and to identify fields as being part of that file.
- Appointment History: The name used in the text to refer to the Medical Appointment History file and to identify fields as being part of that file.
- Appointment Files: Both the Medical Appointment file and the Medical Appointment Scheduling file.
- Automated Scheduling System: A system which files all appointments into a schedule of dates and time slots. Each time slot included in an appointment is checked by the system for available capacity and for shift or program preferences.
- Date Next Exam: For periodic program enrollments, the date by which the employee is expected to be scheduled for an exam; for one-time enrollments or for removed programs, the month and year in which the one-time or removal exam should be given.
- Disposition: A determination of whether an appointment was attended, missed, or cancelled.
- Enrollment: The name used in the text to refer to the Medical Program subfile of the Employee file and to identify fields as being part of that subfile.
- Expiration Date: The date on which an employee's periodic program qualification expires. As adjusted by the clinic specified Qualification Grace Period, it is the program enrollment Date Next Exam or a scheduled appointment date, whichever is later.
- FileMan: The data base management package written by the Veterans Administration to interact with the MUMPS (see below) programming language. This package, also called FileManager, is used in OSHRKS to handle data manipulation needs.

- Inverse: A modified version of a field value or entry number that allows the system to readily process the values in order from highest to lowest. Typically, the modified version is produced by subtracting the original value from an appropriately large number (e.g., an inverse of a time could be 2400 minus the time).
- Kernel: A package of programming utilities written by the Veterans Administration for use with the MUMPS (see below) programming language. This package is used in OSHRKS for menu management, task management, security control, electronic mail, and related activities.
- Location: A four-tiered description of a physical place consisting of site, location, sublocation, and area.
- Manual Scheduling System: Indicates that all appointments will be scheduled by the user with no system scheduling or checking on clinic availability.
- Medical Surveillance Action Level (MSAL): Medical examination qualification is required for any employee expected to enter into areas where airborne concentration may regularly exceed the specified airborne action level. The MSAL includes both a specified stressor concentration (generally about one-half of the Permissible Exposure Limit (PEL) and a number of days or duration of exposure at or above the specified stressor concentration.
- MUMPS (Massachusetts General Hospital Utility Multi-Programming System): A programming language used to develop OSHRKS.
- NAVOSH: Navy Occupational Safety and Health.
- One-time: A program exam or enrollment that does not anticipate or require any periodic reexamination.
- Operation: A defined set of procedures, each with its own code, that is used to classify specific tasks performed by employees in the course of their work.
- Periodic: A program exam or enrollment indicating need for regular medical surveillance at the interval specified by the reexamination frequency. The exam results for these programs determine an employee's medical qualification status for related occupations, operations, locations, and stressors.

- Program: (1) A means of classifying employees for medical surveillance that specifies the medical protocol an employee should be subject to when working in an occupation, location, operation, or with a stressor, or when requiring evaluation based on past exposure to a stressor. Programs may be generic or specific to a stressor, operation, or occupation (e.g., site conservation, asbestos, fork lift operator).
- (2) The name used in the text to refer to the Medical Program file or a subfile that points to the Medical Program file and to identify fields that are part of the referenced file or subfile.
- Program Preference: A medical program that is to be given preferential treatment in scheduling during specified time periods, e.g., an exam needing the presence of a special practitioner who is available one morning each week.
- Protocol: The list of medical history items, physical examinations, and lab tests that an employee should be given during an examination for a medical program.
- Stressor: Any chemical substance, biological agent (bacteria, virus, fungus, etc.), or physical stress, noise, heat, cold, hypo-hyperbaric pressure, etc., which is:
 - (1) Regulated by any NAVOSH standard or Federal law or rule due to a hazard to health.
 - (2) Listed in the latest printed edition of the National Institute for Occupational Safety and Health (NIOSH) Registry of Toxic Effects of Chemicals.
- To Be Scheduled (TBS): The name used in the text to refer to the Programs To Be Scheduled subfile of the Employee file. It contains employee programs that await immediate scheduling by the clinic.
- VA: Veterans Administration.

1.4 Programming Language(s) and Conventions

The MES module software is written in the Massachusetts General Hospital Utility Multi-Programming System (MUMPS) programming language. MUMPS is a standard language (X11.1-1984) approved by the American National Standards Institute (ANSI), though non-standard dialects exist. Non-standard language features have been avoided as much as possible so that OSHRKS can run in any standard MUMPS environment.

Certain features of OSHRKS, such as error trapping, require the use of implementation-specific language features. When necessary, these features are implemented via M/VX, the InterSystems Corporation's MUMPS language product for the VAX computer. For each option in this manual using non-standard features, an explicit discussion of the feature is provided.

The OSHRKS software is based on the use of two MUMPS-based software packages: the VA FileMan data base management system and the VA Kernel system management packages. Knowledge of FileMan is essential to the maintenance programmer. Extensive use is made of FileMan input templates, sort templates, and print templates. Many OSHRKS options use direct calls to FileMan utility routines, e.g., DIC, DIP, DIQ, DIE, DIWF, within the MUMPS code to perform such activities as lookup, print, inquiry, input, and form letter print, respectively. Additionally, through the use of templates and data dictionaries, certain security features of FileMan are activated in the OSHRKS. Furthermore, ad hoc query in OSHRKS is done through the use of the FileMan Search (Option 3) and Print (Option 2) options. Also, the FileMan data dictionary* is used to define all of the files in this module. The reader must have carefully reviewed the FileMan User's Manual and the FileMan Programmer's Manual, published by the Veterans Administration (VA), before using this manual or some of the terminology, specific to FileMan, used in this manual will be unclear.

The Kernel package is used in OSHRKS to provide security (user and device levels), menu management, and task management. Where custom MUMPS code has been used, the Kernel sets FileMan variables and invokes a FileMan routine to perform the appropriate function. For a complete technical view of OSHRKS, this manual must be used in conjunction with the documentation provided by the VA on the FileMan and Kernel packages (see Section 1.2).

1.5 Organization of the Manual

Section 2.0 provides a non-technical overview of the module and an overview of the module's files. Section 3.0 presents the module's menus; for each menu option, the number of the section where the option is discussed is shown. Sections 4.0 through 7.0 describe the software used by the various menu options. Each section covers the options that perform related functions.

*If the maintenance programmer using this manual needs to review a file's data dictionary entries, he or she should use the FileMan List File Attributes option to generate the most current file data dictionary.

Each option's description in Sections 4.0 through 7.0 contains the following subsections:

- Purpose - Describes in non-technical terms the function(s) which the option performs.
- Overview - Describes the type of option and the templates, files, subfiles, and routines it uses. If the option is a routine option, i.e., it invokes the use of custom MUMPS code, the flow among routines and each routine's major function(s) are described.
- Globals Referenced - Lists by name and file number each file and subfile read or updated, the global referenced, and the module that has ownership of the global.
- Variables - Lists each variable name with a definition of its use.
- Remarks - Describes any special processing, special coding conventions, algorithms, interface consequences, triggers, computed fields, and input syntax checks that are specific to the option. If a module-specific utility routine or software feature is involved, the reader is referred to the appropriate section of the manual.

1.6 Routine Structure Diagram Conventions

Most of the options in the MES module are routine options, meaning that the Kernel invokes a custom-coded set of routines to perform the function(s) embodied in the routine. For each of these options, a routine structure diagram is included to describe the set of routines that are used. Each routine in the structure diagram is shown as a rectangle. The structure diagram indicates the control flow within the routine by both the positioning of the rectangles and the orientation of the connecting lines. When two rectangles are connected by vertical lines without arrows, the upper program is "calling" the lower program through the use of the MUMPS "DO" command. The "called" routine returns control back to the "calling" program when the "called" routine completes its work. When two rectangles are connected by a line with arrows, this means that one routine is passing control to the other by means of a MUMPS "GO TO" command; usually these routines appear horizontally in the diagram. The direction of the arrow indicates the direction in which control is transferred. When a module-wide utility routine is invoked as part of an option, the routine is marked with a single asterisk (*) on the routine structure diagram. The reader must refer to a later section of this manual for a complete description of the utility routine (and its internal flow). When a system-wide utility routine is used, e.g., T2GED (the

standard input driver program that performs completeness and consistency checking), the routine structure diagram shows this routine with a double asterisk ("**"). The reader must refer to the OSHRKS System-Wide Program Maintenance Manual for more detailed discussion of this routine and its internal flow.

2.0 MODULE DESIGN OVERVIEW

2.1 Module Design Summary

The Medical Exam Scheduling module tracks employee medical surveillance program exam requirements and medical qualification statuses, supports automatic or manual clinic scheduling with appointment notification and exam protocol generation, and provides data for monitoring employee's exam histories. Figure 2-1 illustrates the major inputs, processes, files, and outputs of the module.

The primary function of this module is to ensure that employees receive necessary medical surveillance. To accomplish this, the system uses the Medical Program file to identify surveillance needs and then tracks employee medical surveillance program enrollment, scheduling, and qualifications. Figure 2-2 illustrates the general flow of employee medical program data in this module. Where the line goes from bubble to bubble, program data is directly transferred by the system and the user can modify it as appropriate. One special piece of data that gets passed by this data flow is the Date Exposure Reported. This date is used at every stage of the data flow to remind the user that the employee needs an exposure related exam. When an employee is identified by the Environmental Exposure (EE) module as overexposed or over the MSAL for a stressor with mandatory or recommended medical monitoring, the date of the report compilation is filed in the enrollment Date Exposure Reported field. This date gets passed by the data cycle and is only deleted from the enrollment by the user or when an attended appointment history program has final results filed and has the same Date Exposure Reported as the enrollment.

The module first enables the user to establish medical programs that are linked to locations, stressors, occupations, operations, and medical exam protocols.

During Employee file updates under the Administration (ADMIN) module, if an employee is put in an occupation that is linked to medical programs, the system automatically enrolls the employee in the programs for periodic surveillance and files the newly required programs in the To Be Scheduled file. During compilation of the Over MSAL Report in the EE module, the system may set up a one-time enrollment for an employee who is overexposed or over the medical surveillance action level for a stressor, or may file entries in the To Be Schedule file for all programs linked to the stressor, depending on the monitoring recommended for that stressor and the employee's current enrollment. The user can also enroll employees into medical programs and modify existing enrollments. Enrollment is generally used for periodic programs with annual, semiannual, or other frequencies, but it can also be used to ensure that a one-time exam is conducted in the future.

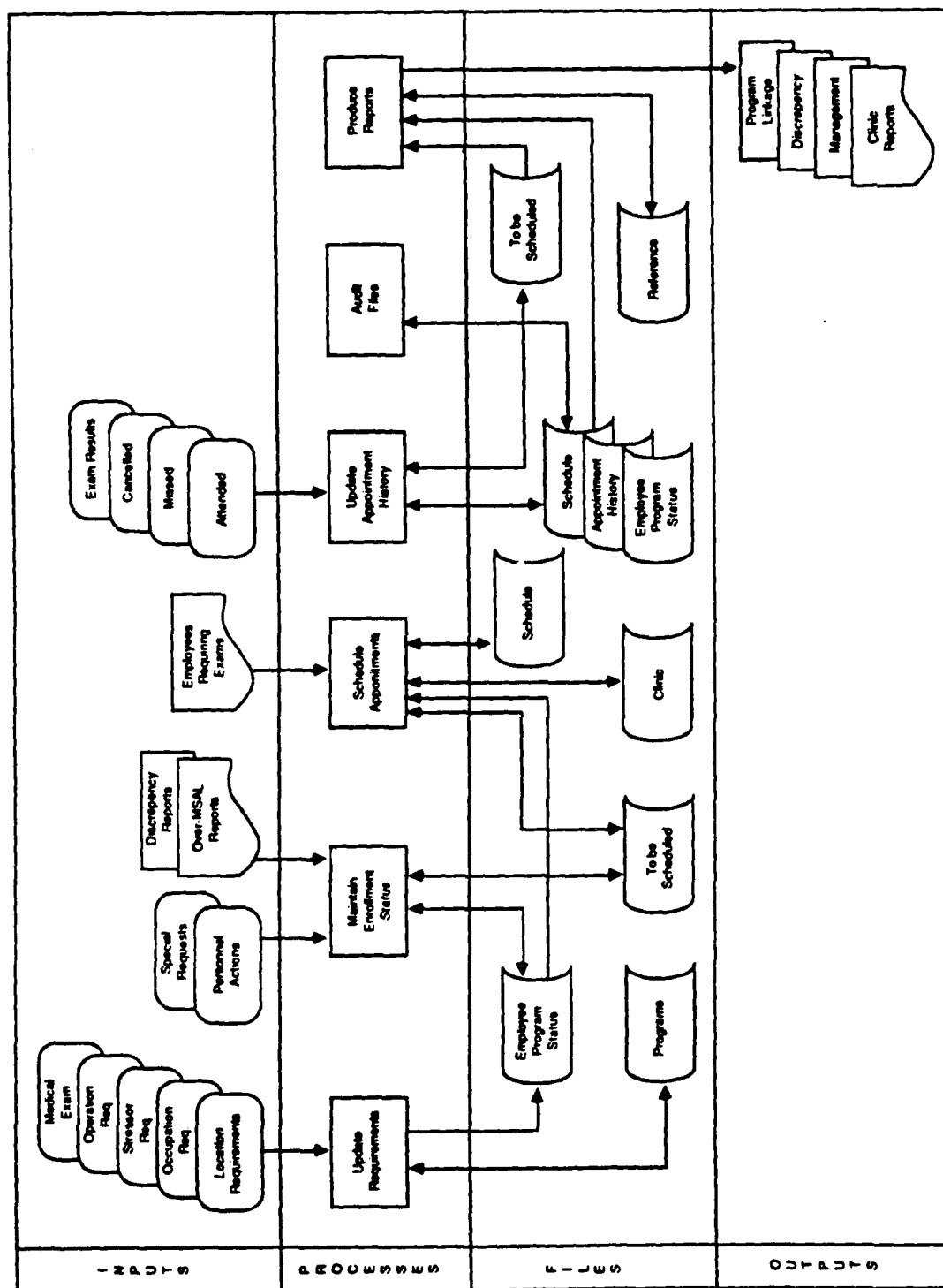


FIGURE 2-1
OVERVIEW OF MEDICAL EXAM SCHEDULING MODULE

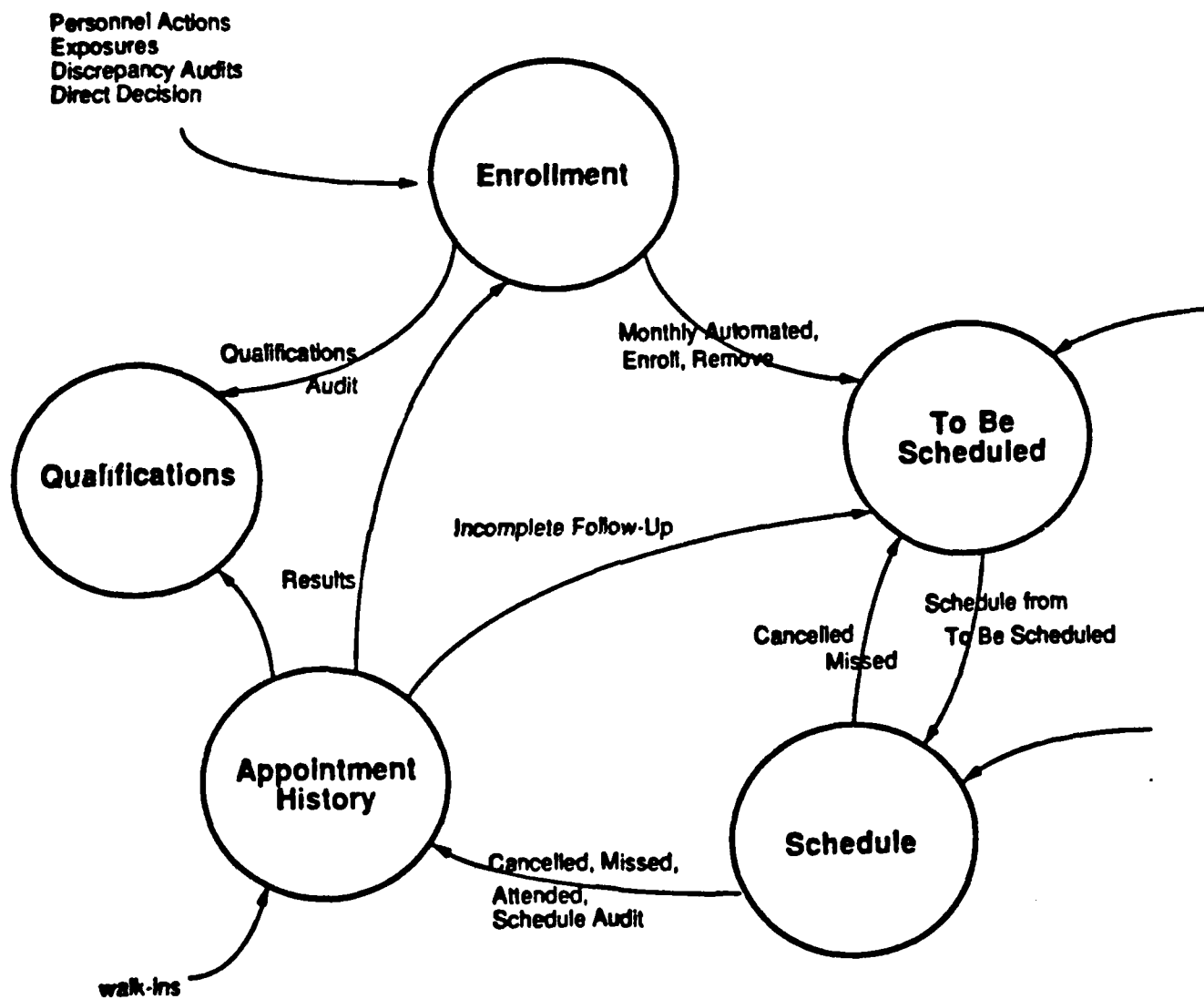


FIGURE 2-2
MEDICAL EXAM SCHEDULING DATA FLOW

The system automatically removes employees from enrollment in programs in the following circumstances: they are terminated; a program is deleted from their occupational requirements; the system determines that they have missed an excessive number of consecutive exams; or, for one-time enrollments, the program is moved to the To Be Scheduled file. The user can also remove an enrollment directly, at which time the user specifies whether a removal exam is to be performed.

Once a month the clinic will have the system review all employee records and identify those employees having enrollments that need an exam in the specified month. These programs are filed in the To Be Scheduled file.

For scheduling purposes, each clinic uses either a manual scheduling system or an automated scheduling system. Under either system, the user can at any time schedule or reschedule appointments directly and either incorporate programs that are in the To Be Scheduled file or enter other desired program data. In addition, under an automated scheduling system, the user can have the system schedule appointments for programs that need to be scheduled or can have the system list the employees and programs that need to be scheduled and list blank time slots that are available by shop for scheduling. In the latter case, the shops will use the employee lists to assign appointments, and the clinic will enter the appointments directly. The system will distribute a shop's appointments or blank time slots over several days. System scheduling can be run more than once a month, if desired.

Under an automated scheduling system, the user can specify clinic holidays, administrative time, availability of time slots, time slot length, and preference for seeing employees from a specific shift or program at specific dates and times.

Whenever an appointment date, time, or program has been assigned or changed, the system prints out an appointment notice addressed to the employee, listing the appointment date and time, medical programs covered by the appointment, and any preexamination instructions that the employee should follow prior to the appointment. The clinic can, for a specific day or appointment, print individual appointment exam protocols that list exposure data, the employee's enrollments, the appointment programs and the medical history, physical exams, and lab tests appropriate to the employee's age and sex for the medical programs specified in the appointment. The physician will use this report to record program exam results of "qualified," "not qualified," or "incomplete." The clinic will enter missed, cancelled, or attended appointments directly or will flag an existing scheduled appointment as missed, cancelled, or attended. For cancelled or missed appointments, the clinic will be able to reschedule the appointment directly or file the programs in the To Be Scheduled

file. For attended appointments, the clinic can add information on the employee's arrival and departure time and can enter program exam results as they become available.

The system also tracks the medical qualification of each employee. When a user records an appointment as attended, a qualification of "pending" is filed in the employee record for each program covered by the appointment. When a program result is entered as "incomplete," the employee program qualification status is left as "pending," and the program is filed in the To Be Scheduled file for a follow-up exam. When results of "qualified" or "not qualified" are entered in the appointment history, the system also files them in the employee's program qualifications and increments the qualification expiration date by the reexamination frequency. For medical surveillance programs in which an employee is enrolled for periodic reexamination, the system will file a "not qualified" if the qualification expiration date is past. The system generates a regular report on employee qualifications, and the user may request a special report at any time.

2.2 File Overview

The 23 files listed in Table 2-1 are all created, read, or updated in the MES module. Where there is a name in parenthesis under the subfile column, that is the actual subfile name; the other name is used in the text.

The Clinic file is referenced during processing of the Agency Unit file in the Administration module. The Enrollment and To Be Scheduled files are subfiles of the Employee file which are modified when the Employee file is updated by the ADMIN module or when the Compiled New Over MSALs option in the EE module is used. During such updates the Medical Program file and Reason for Medical Visit/Exam file are referenced. With these exceptions, the files owned by the MES module are not used by any other module. The relationships between the files are illustrated in Figure 2-3.

The Clinic file identifies the clinics using the system and controls most of the scheduling and reporting done in the MES module. The file provides the clinic-specific grace periods and holds data on the type of scheduling system used by each clinic. For a clinic with an automated scheduling system, the entry contains the program preference list, time slot length, clinic start and stop times, and the generic weekly schedule (stored in the Clinic Day multiple) used by the system to build monthly templates. This file also has a Scheduled Month multiple that records the status of monthly scheduling for the clinic. The Identification (ID) field for a clinic entry is the clinic name. The lookup fields are the Clinic Name and Clinic Abbreviation. A Clinic cannot be deleted when there are records that reference it in the Agency Unit, the Medical Appointment History file, the Medical Appointment file, or the Medical Appointment Scheduling file.

TABLE 2-1
FILES AND GLOBALS USED BY
MEDICAL EXAM SCHEDULING MODULE

FILE NAME	SUBFILE NAME	FILE NUMBER	GLOBAL REFERENCE	MODULE
Clinic	---	1138	↑MED(0,	MES
Medical	---	1088	↑MED(1088,	MES
Program				
Employee	Enrollment	1004.05	↑EMPLOY(#,3,	MES
	(Medical Program)			
Employee	To Be Scheduled	1004.07	↑EMPLOY(#,8,	MES
	(Program To Be Scheduled)			
Employee	Medical Qual-ification	1004.08	↑EMPLOY(#,12,	MES
Medical	---	1134	↑MED(1134,	MES
Appointment	---			
Medical	---	1144	↑MED(1144,	MES
Appointment				
Scheduling				
Medical	---	1126	↑MED(1126,	MES
Appointment				
History				
Appointment	---	1145	↑MED(1145,	MES
Notices				
Preexam	---	1139	↑MED(1139,	MES
Instructions				
Medical	---	1129	↑MED(1129,	MES
Program Tests				
Program	---	1143	↑MED(1143,	MES
Changes				
Reason for	---	1128	↑MED(1128,	MES
Medical				
Visit/Exam				
Employee	---	1004	↑EMPLOY(	ADMIN
Agency Unit	---	1074	↑AGENCY(0,	ADMIN
Location	---	1073	↑AGENCY(1073,	ADMIN
Operation	---	1087	↑DIZ(1087,	ADMIN
Occupation	---	1001	↑DIZ(1001,	ADMIN
Stressor	---	1083	↑STRESS(0,	ADMIN
Employee	Current Course	1004.11	↑EMPLOY(#,10,	S/HT
Sample Survey	---	1124	↑ESAMP(	EE
Over MSAL	---	1137	↑EXP(1137,	EE
Results				
Counters	---	1141	↑EXP(1141,	EE

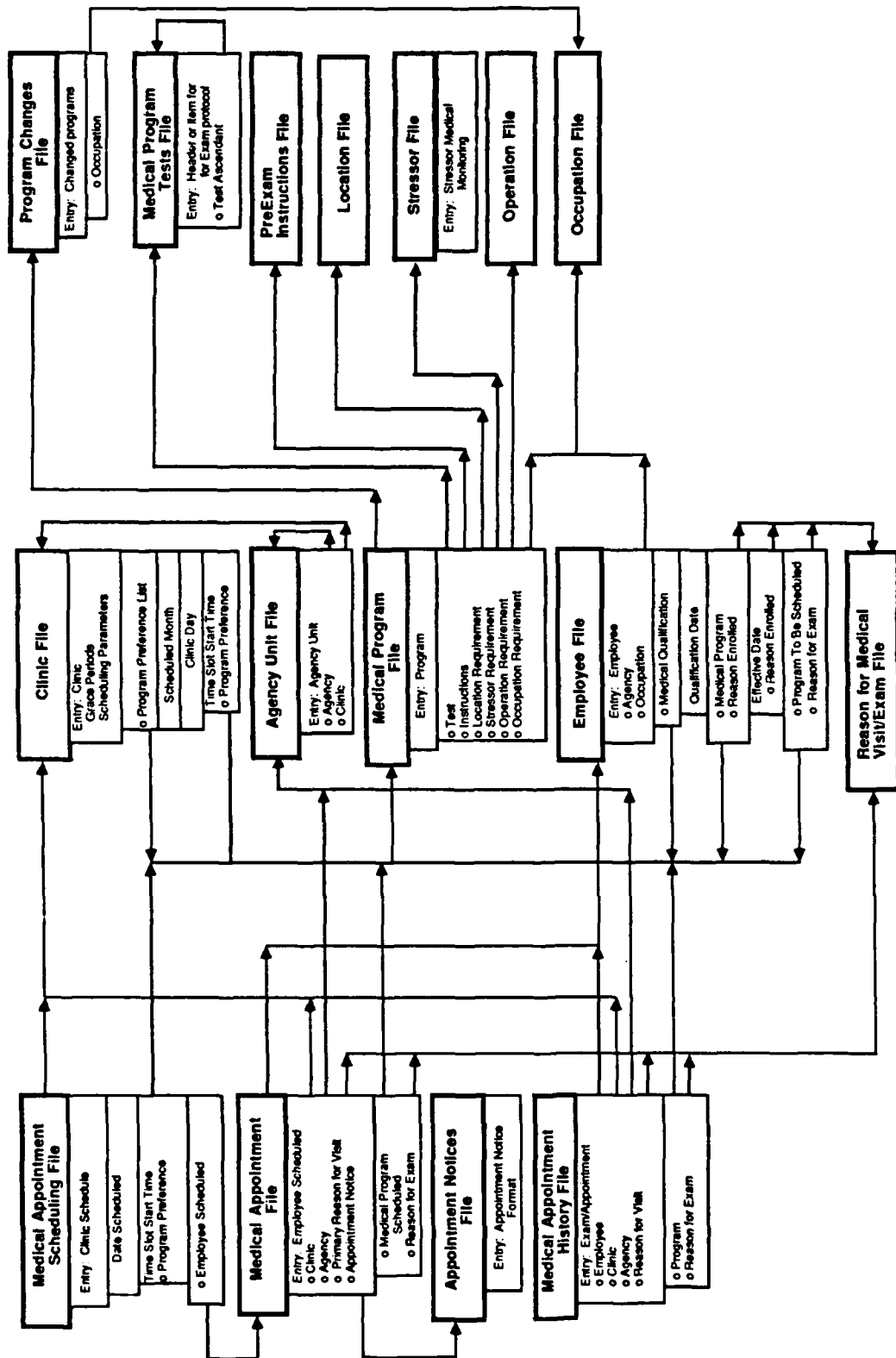


FIGURE 2-3
MEDICAL EXAM SCHEDULING FILE LINKAGES

A Medical Program file entry identifies a medical surveillance program and contains data on valid reexamination frequencies, exam protocols, preexam instructions, estimated exam length, and links to related occupations, stressors, operations, and locations. The file is referred to in the text as the "program" file. The ID field is the Name. The lookup fields are the Name and Program Code. Entries cannot be deleted.

The Enrollment file contains data on programs in which an employee is or has been enrolled. The file is actually the Medical Program subfile in the Employee file. This file is called the "enrollment" subfile in the text. For each employee, there can be multiple programs referenced (but only one occurrence of a specific program). The data consists of the most recent enrollment and removal for each program including information concerning the next examination needed. Keeping current data on both removals and enrollments facilitates the verification that data being filed is consistent with the employee's enrollment history. There is also an Effective Date multiple that contains a complete enrollment history.

There are two kinds of enrollments in the Enrollment subfile--periodic and one-time. A periodic enrollment has a non-zero Reexam Frequency. A one-time enrollment has a Reexam Frequency of zero and is used to ensure that an employee will be examined before a specified date. One-time enrollments are automatically removed by the system as soon as the program is filed in the To Be Scheduled subfile. The system may generate one-time enrollments as a result of an employee's exposure to a stressor. The system will generate periodic required enrollments with a Date Next Exam of the current date when an employee's occupation is entered or changed, or when the required programs for an occupation are changed.

Data reflecting a need for future periodic exams is put in the Enrollment subfile to avoid the complexities of having multiple To Be Scheduled file entries for the same program with an associated date for each entry, and to keep current data on the enrollment status in one place. Having done this, it followed that other future exams needs such as removal and one-time exams should also be kept in the Enrollment file.

The To Be Scheduled file consists of programs for which an employee is to be scheduled. This file is actually the Programs To Be Scheduled subfile of the Employee file. For each employee, there can be multiple programs referenced, but only one occurrence of a specific program. Each program entry contains information needed to schedule the program. This subfile serves as a holding area for employees with programs that await immediate scheduling by the clinic. Entries in this subfile will be deleted as they are scheduled for appointments either by the user or by the system. The bulk of the subfile entries will be the result of one of the following actions:

- Operator or system entry of an enrollment with a Date Next Exam in the current month. The system's entries will arise primarily in response to changes in an employee's occupation or occupational requirements as discussed above.
- Compilation of an Over MSAL Report, within the EE module, that identifies either an employee's overexposure to a stressor or exposure over the MSAL to a stressor requiring mandatory monitoring, whether or not the employee is enrolled in the stressor-related programs.
- Initiation of the monthly selection process which identifies any programs with a Date Next Exam in the month to be selected.
- Operator entry of a scheduled appointment as missed or cancelled with the appointment to be rescheduled at an unspecified date and time.
- Operator entry of an employee's program exam status as "incomplete". This will result in a follow-up entry.

A Medical Appointment file entry identifies an employee and the programs covered by the appointment. This file is referred to as the "appointment" file in the text. Appointment notices are printed from this file. The ID field is the Employee Scheduled (which references the Employee file). During file lookups, the Date Scheduled, Time Scheduled, and Medical Programs Schedules are listed as identifiers.

The Medical Appointment History file contains data on all cancelled, missed, and attended appointments, and the program exam results. This file is called the "appointment history" file in the text. The ID field is the Date of Exam/Appointment. File lookups are done on the Employee field with the Disposition, Clinic Time In, Reason for Visit, and Program subfile entries listed as identifiers.

The Medical Qualification file contains any programs for which an exam result or qualification status has been filed. The file is a subfile of the Employee file, with the Medical Qualification Program (which references the Medical Program file) as the ID field for the subfile. For each program, there are multiple Qualification Date entries which contain the date and the associated status. Each date occurs only once for a program and all dates are stored in inverse order.

The Medical Appointment Scheduling file contains scheduling templates and appointments data on clinics that use an automated scheduling system. The system uses this file to generate appointment capacity grids and to identify the unavailability of a day or time period because of capacity or

designation as administrative or holiday time. Text references to "appointment files" cover this file and the Medical Appointment file. The ID field is a pointer to the Clinic file. The Date Scheduled multiple contains entries for each Monday through Friday in the month. Under the Date Scheduled, there is a Time Slot Start Time multiple that has entries corresponding to the time slot start times in the clinic's generic weekly schedule when the templates were generated. Under the Time Slot Start Time, there is an Employee Scheduled multiple which points to entries in the Medical Appointment file that cover the time period of the time slot.

The Appointment Notices file contains the format for the appointment notices to be sent to employees. The provided entry specifies the text and the data items to be inserted from the Employee, Medical Appointment, and Preexam Instructions files. The ID field is Code and the Title field is an identifier. Both Code and Title are lookup fields. There currently is only one Appointment Notice entry used by the system. The Text word processing field contains the actual format used in printing the notices.

The Preexam Instructions file contains categories of instructions to appear on the employee's appointment notices. The ID field and lookup field is Name. Entries cannot be deleted.

The Medical Program Tests file contains the full exam protocol stored in a hierarchy. Test Number is the ID field and Test Name is an identifier. Either can be used for lookup. Each entry can also have a Test Ascendant which controls indentation and ensures that all pertinent higher level entries are included in a protocol listing. An entry can also be restricted by gender, so that only employees with the specific sex have an entry listed on their individual exam protocols. Entries cannot be deleted.

The Reason for Medical Visit/Exam file contains the controlled vocabulary used to specify an enrollment reason, or reason for a visit, or reason for an individual exam. This file was established to ensure continuity among the files that use it. This file should not be modified. The ID and lookup field is Name.

The Program Changes file contains modifications made to the Medical Program file that affect enrollment. Once the audit that is set off by such changes has been completed, all entries in this file are deleted. The file contains one entry for each program that has been modified. The ID and lookup field is Medical Program. Users do not have direct access to this file.

The Agency Unit file contains all agencies and their subordinate units. Each agency entry references the Clinic to be used for employees in the agency when scheduling appointments, filing appointment histories,

or printing reports. A change in this link will make the Medical Appointments and Medical Appointment History records for the old clinic inaccessible by Employee or Agency lookup.

The Location file contains all locations stored in a four-tiered format; site, location, sublocation, and area. Users who link an employee to a location will be notified if there are Medical Programs that have been linked to that location by the MES module.

The Operation file contains all operations with their codes, classes, and subclasses. Links between operations and programs are reported to users on the Operations Report.

The Stressor file contains all stressors with identifying data, medical monitoring recommendations, exposure limits, acute and chronic effects, and first-aid instructions. During compilation of the Over MSAL Report in the EE module, the system uses the stressor medical monitoring recommendations to determine when an employee's enrollment should be reviewed for programs linked to the stressor.

The Employee file contains all employees with identifying data, including terminated, prehire, and current employees. It is a reference file for most of the major MES module files.

2.3 Naming Conventions

The module files are all stored in the MES global, with the exception of those that are subfiles of the Employee file. All option names in the Kernel begin with "T2M" as do all module routines. In general, the fourth character in the routine names and option names fit the following conventions:

- A: Updates the Medical Appointment History file
- C: Updates the Clinic file
- E: Updates the Enrollment file
- I: Updates the Preexam Instruction file
- M: Performs scheduling handling required on a monthly basis
- P: Updates the Medical Program file or displays its linkage
- R: Generates a report

- S: Updates the Medical Appointment file
- T: Updates the To Be Scheduled file
- X: Updates the Medical Program Tests file

All module variables begin with "M". The following variables have standard definitions across the module except for occasionally unrelated use as described under the option:

- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MBD: An employee's birthdate
- MCL: A Clinic file entry number and the corresponding Medical Appointment Scheduling file entry number
- MDN: A Date Next Exam in FileMan format
- ME: A Medical Program entry number, and the corresponding entry number in the employee Enrollment subfile, employee To Be Scheduled subfile, employee Medical Qualifications subfile, Program Changes file, Program Preference List subfile in the Clinic file, Medical Programs Scheduled subfile in the Medical Appointment file, and Program subfile in the Medical Appointment History file
- MF: An array using as subscripts the valid reexamination frequencies for a program or an employee's current enrollment
- MIO: Characteristics for a selected device
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MPO: (1) The zero node of an Employee file entry
(2) The zero node of a Medical Program file entry
- MS: A Medical Appointment file entry number and the corresponding entry number in the Employee Scheduled subfile in the Medical Appointment Scheduling file
- MSC: The internal value of the Which Scheduling Used field in a Clinic file entry

- MTBS: The zero node of an employee To Be Scheduled file entry
- MTS: A Time Slot Start Time in the Clinic Day subfile of the Clinic file or the Date Scheduled subfile of the Medical Appointment Scheduling file and the corresponding subfile entry number

In addition to their basic definition, several variables are described as being a "corresponding" file or subfile entry number. In such cases, the internal ID field value for the file or subfile is also the entry number in the file or subfile. This was accomplished by including in the ID field input syntax check MUMPS code which sets the FileMan variable DINUM equal to the field value, often a pointer. This method helps ensure entry uniqueness and makes processing more efficient by eliminating the need for retrieval of the entry node to get the ID field value.

3.0 MODULE MENUS

The Medical Exam Scheduling module options are related to six processes:

- Maintain Enrollment Status - These options directly affect employee enrollment in medical surveillance programs. They include the Enrollment into Medical Programs option and the Remove Employees from Medical Programs option.
- Schedule Appointments - The Schedule Medical Appointments options, Appointment Notices and Medical Exam Protocols options, and Print Current Appointment Schedule options handle all aspects of appointment scheduling.
- Update Appointment History - The options for Record Attended Appointments, Exam Results Entry/Edit, Cancel Medical Appointments, and Missed Appointments are used to enter and edit all Appointment History data and modify employee enrollment qualification data.
- Medical Tables and Program/Test Linkages - These options are used to display program linkages and exam protocols. The options that display program linkages are discussed under the Maintain Enrollment Status process.
- Medical Exam Reports - These options produce reports on enrollment, qualifications, appointment histories, and program/operation links. The Removal Report Program List per Operation by Shop, Program History, and Report of Data Next/Birth Month Discrepancies relate to the Maintain Enrollment Status process. The rest of the reports are discussed under the Update Appointment History process.
- Medical Audit Functions--These options audit the module's files.

Table 3-1 shows the structure of the menus and the options. The section number in which each option is discussed is shown in parenthesis after the option name.

The flexibility of the Kernel's menu system will allow the menu structure to change frequently or be set individually as local sites become familiar with the system's capabilities. Because of this flexibility, the options are going to be presented in terms of the processes that have been discussed rather than the menu structure.

Appendix A cross references the option names with the option's text. Appendix B cross references the print templates with the options that use

TABLE 3-1
MEDICAL EXAM SCHEDULING MENU OPTIONS

1. Enrollment into Medical Programs (4.2)
2. Schedule Medical Appointments
 1. Enter/Edit Employees To Be Scheduled (5.2)
 2. Display/Print Personnel Requiring Exams (5.8)
 3. Manual Appointment Scheduling
 1. Schedule Appointments from To Be Scheduled (5.5)
 2. Direct Appointment Scheduling/Rescheduling (5.4)
 4. Automated Scheduling
 1. Generate Clinic Monthly Template (5.3)
 2. Monthly Automated Scheduling (5.6)
 3. Monthly Schedule Kill and TBS Refile (5.7)
 5. Available Capacity Grid Display (5.8)
3. Appointment Notices and Medical Exam Protocols
 1. Create/Edit Appointment Notice Text (5.9)
 2. Appointment Notices Print (5.10)
 3. Reprint Appointment Notice (5.11)
 4. Employee Medical Exam Protocol (5.8)
 5. Medical Exam Protocol for Program (5.8)
 6. Medical Exam List (5.8)
4. Record Attended Appointments (6.5)
5. Exam Results Entry/Edit (6.6)
6. Cancel Medical Appointments
 1. Cancel Individual Medical Appointments (6.2)
 2. Block Cancellation of Medical Appointments (6.3)
7. Missed Appointments (6.4)
8. Remove Employees from Medical Programs (4.3)

TABLE 3-1
MEDICAL EXAM SCHEDULING MENU OPTIONS
(CONTINUED)

9. Medical Tables and Program/Tests Linkages

1. Set Up Medical Tables

1. Clinic Table Entry/Edit (7.5)
2. Pre-exam Instructions Table Entry (7.2)
3. Medical Program Table Entry/Edit (7.4)
4. Medical Test Table Entry/Edit (7.3)

2. Set Up/Display Medical Program Linkages

1. Occupation/Medical Program Linkage (7.5)
2. Occupation/Medical Program Display (4.4)
3. Location/Medical Program Linkage (7.7)
4. Location/Medical Program Display (4.4)
5. Operation/Medical Program Linkage (7.8)
6. Operation/Medical Program Display (4.4)
7. Stressor/Medical Program Linkage (7.9)
8. Stressor/Medical Program Display (4.4)

10. Print Current Appointment Schedule

1. Appointment List by Clinic (5.8)
2. Appointment List by Shop (5.8)

11. Medical Exam Reports

1. Qualification Status Report (6.7)
2. Appointment History Details (6.7)
3. Appointment History Summary (6.7)
4. Performance Summary (6.7)
5. Missed Appointments Report (6.7)
6. Cancellation Report (6.7)
7. Removal Report (4.4)
8. Cost Accounting Report (6.7)
9. Program List per Operation by Shop (4.4)
10. Program History (4.4)
11. Report of Date Next/Birth Month Discrepancies (4.4)
12. Full Qualification Status Report (6.7)

TABLE 3-1
MEDICAL EXAM SCHEDULING MENU OPTIONS
(CONCLUDED)

i2. Medical Audit Functions

1. Discrepancy Audit of Personnel File (8.2)
2. Qualification Audit (8.3)
3. Schedule Audit (8.4)
4. Discrepancy Audit for Prgm/Occ Changes (8.5)

them. Appendix C cross references the sort templates with the options. Appendix D cross references routine entry points with the options or routines that call them.

4.0 MAINTAIN ENROLLMENT STATUS

4.1 Introduction

The options discussed in this section are used to identify an employee's one-time and periodic medical surveillance program enrollments, determine what they should be, and enter, modify, or correct enrollments. The Enrollment subfile contains current employee enrollment and removal data. As mentioned in Section 2.1, enrollment data is automatically changed by the system during Employee file updates under the ADMIN module and during compilation of new Over MSALs under the EE module. Figure 4-1 illustrates all the options that affect enrollment data and the files read or updated. As indicated in the description of the To Be Scheduled subfile and illustrated by the figure, changes in enrollment can affect the To Be Scheduled subfile by creating, updating, or deleting program entries.

4.2 Enrollment into Medical Programs Option

4.2.1 Purpose

This option allows users to enroll an employee in a program for the first time, reenroll an employee who has been removed, modify an existing enrollment, or delete and replace an existing enrollment that had an error.

4.2.2 Overview

This option is performed by routine T2MEE. Figure 4-2 illustrates the routine structure for the option. The routine first calls T2PL to look up an employee. Next, the routine locks the Enrollment file for the employee and sets the subfile zero node, if necessary. The call to DIP using print template PROGRAM HISTORY allows the user to display the current enrollment data. The routine then loops as it selects an active Medical Program file entry using routine DIC, sets up valid frequencies, and calls line tag DET which is the Enrollment Update utility that does the enrollment data prompting and filing.

4.2.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update

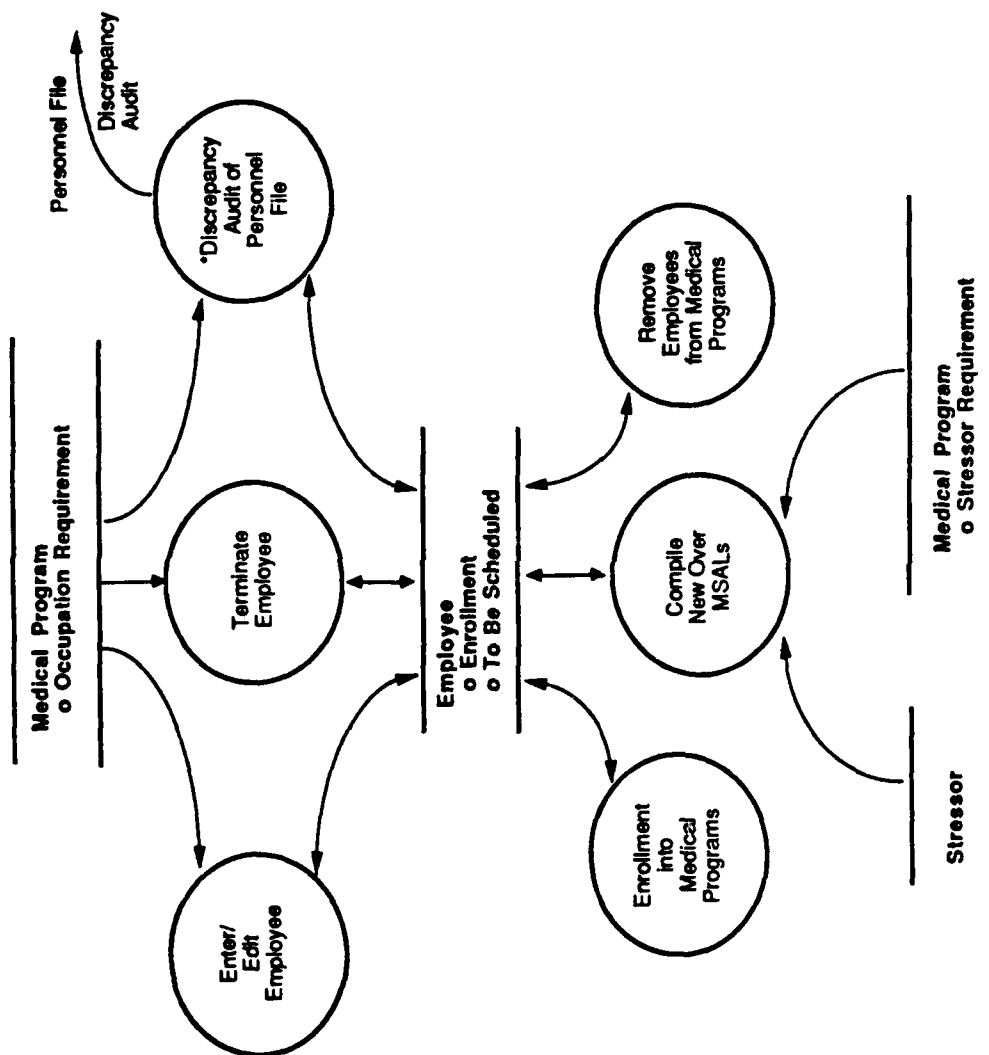


FIGURE 4-1
ENROLLMENT OVERVIEW

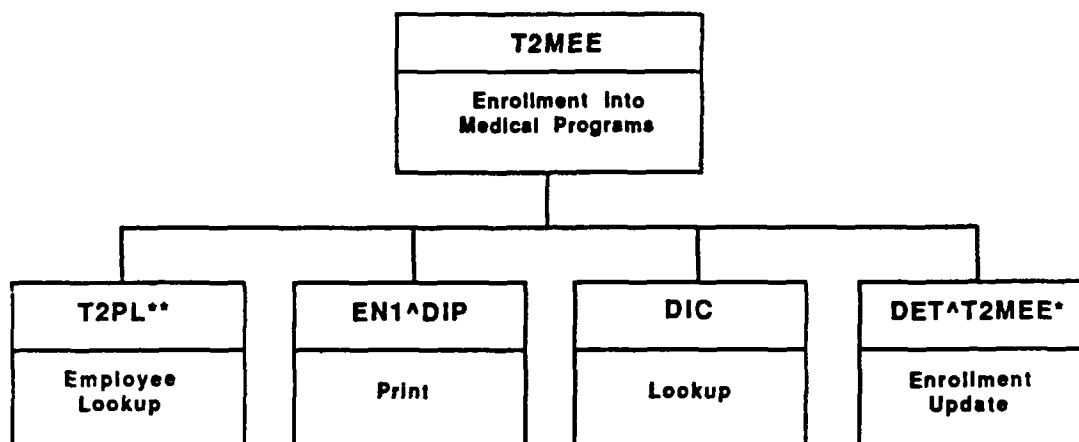


FIGURE 4-2
ENROLLMENT INTO MEDICAL PROGRAMS
ROUTINE STRUCTURE

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

4.2.4 Variables

In addition to standard FileMan variables, routine T2MEE uses the following variables:

- MBD: An employee's birthdate
- MDN: An employee's next birthday
- ME: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry number
- MF: An array using valid reexamination frequencies for the selected program as the subscripts
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MPQ: The zero node of the selected employee Enrollment subfile entry
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format

4.2.5 Remarks

The section of routine T2MEE from line DET to the end is the Enrollment Update utility which is discussed in Section 9.2.

4.3 Remove Employees from Medical Programs Option

4.3.1 Purpose

This option enables users to remove an employee from a program or modify an existing removal. It allows users to indicate if and when a removal exam is to be given.

4.3.2 Overview

Routine T2MER performs this option. Figure 4-3 shows the option's routine structure. The routine T2MER calls T2PL to look up an employee and then display additional employee data. After locking the Enrollment subfile for the employee and, if needed, setting the subfile zero node, the routine calls DIP using print template PROGRAM HISTORY to display the current enrollment data. The routine then loops as it selects an active Medical Program file entry using routine DIC and calls line tag DET, which is the Enrollment Removal utility that does the removal data prompting and filing.

4.3.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Employee	--- Enrollment (Medical Program)	1088 1004.05	↑MED(1088, ↑EMPLOY(#,3,	MES MES	Read Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

4.3.4 Variables

In addition to standard FileMan variables, routine T2MER uses the following variables:

- ME: A pointer to a Medical Program file and the corresponding employee Enrollment subfile entry number

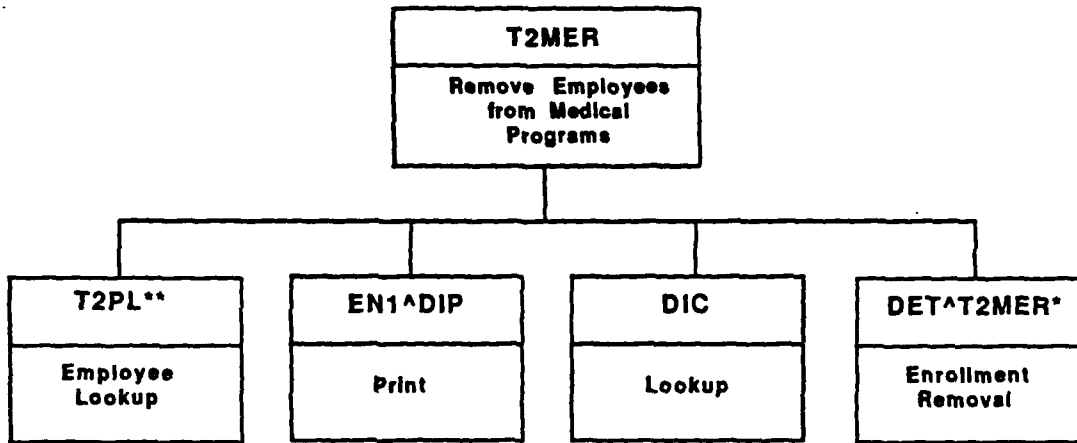


FIGURE 4-3
REMOVE EMPLOYEES MEDICAL PROGRAMS
ROUTINE STRUCTURE

- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format

4.3.5 Remarks

Line DET to the end of routine T2MER is the Enrollment Removal utility which is discussed in Section 9.3.

4.4 Maintain Enrollment Status Output Options

4.4.1 Purpose

The following eight options produce reports that assist the user in maintaining employee enrollment:

- Program History
- Removal Report
- Report of Date Next/Birth Month Discrepancies
- Occupation/Medical Program Display
- Location/Medical Program Display
- Operation/Medical Program Display
- Stressor/Medical Program Display
- Program List Per Operations by Shop

4.4.2 Overview

All of the options are routine options. The Program History option is produced by routine T2MRP2 which calls routine T2PL to select an employee and routine DIP using print template PROGRAM HISTORY to display the employee's current enrollment data. Figure 4-4 illustrates the routine structure for this option.

The Removal Report option is produced by routine T2MRR which calls routine DIP using print and sort templates named REMOVAL REPORT to generate the report. After each report, the user is asked if another report is desired. The routine structure is illustrated in Figure 4-5.

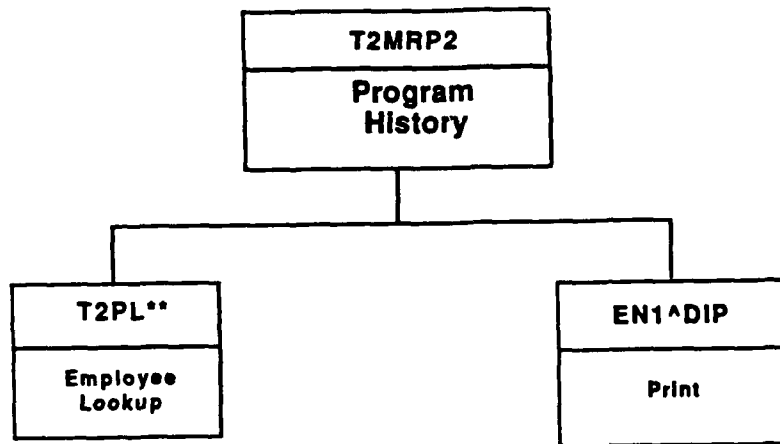


FIGURE 4-4
PROGRAM HISTORY OPTION
ROUTINE STRUCTURE

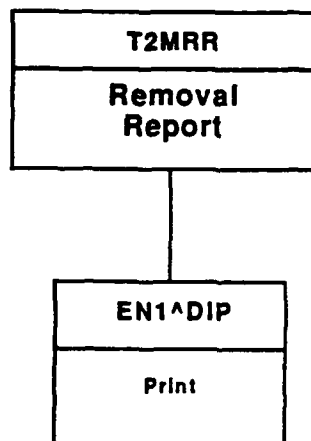


**FIGURE 4-5
REMOVAL REPORT OPTION
ROUTINE STRUCTURE**

Routine T2MRE2 produces the Report of Date Next/Birth Month Discrepancies option. Figure 4-6 illustrates the routine structure for this option. First, this routine calls routine DIC to select an agency. Then control is transferred to routine T2GQTASK which queues the routine to be run on a selected device at a specified time. Control is then passed back to T2MRE2 at line EX and processing is complete. If a job was queued, the system Task Manager will reenter the routine at line tag GO. To produce the report in alphabetical order, the routine processes the Employee file using the cross index, eliminating terminated employees and those from the wrong agency. If an employee entry is found that is missing the birthdate or has an enrollment program Date Next Exam that is out of phase with the birthdate as adjusted by the Reexam Frequency, an entry is printed on the report showing the employee's current enrollment and removal data and the pertinent error messages.

The Occupation/Medical Program Display option is produced by routine T2MPOCP. The routine structure is illustrated in Figure 4-7. If the user wants to display a single program or occupation, the routine calls routine DIC to look up an entry in the specified file. The display is produced by a call to routine DIP, using print template OCC if the display is by occupation or PROG/OCC if the display is by program.

Routine T2MPLOP produces the Location/Medical Program Display option. The routine structure for this option is illustrated in Figure 4-8. If the user wants the display for a single program or location, the routine calls routine DIC to look up an individual program or routine T2GL to look up a single location. The display is produced by a call to routine DIP using print template LOC/MED when the display is by location, or PROG/LOC when the display is by program.

The Operation/Medical Program Display option is produced by routine T2MPOPP. Figure 4-9 presents the routine structure. If the user wants the display produced for a single program or operation, the routine calls DIC to look up an entry in the specified file. The display is generated by a call to routine DIP using print template OP/MED if the display is by operation or PROG/OPP if the display is by program.

Routine T2MPSP produces the Stressor/Medical Program Display option. The routine structure is illustrated in Figure 4-10. A display by stressor is generated by a call to routine T2SP. Routine DIC is called to select a single program, as appropriate. Displays by program are generated using print template PROG/STR in a call to routine DIP.

The Program List Per Operations by Shop is produced by routine T2MRO. Figure 4-11 illustrates the routine structure. This routine first

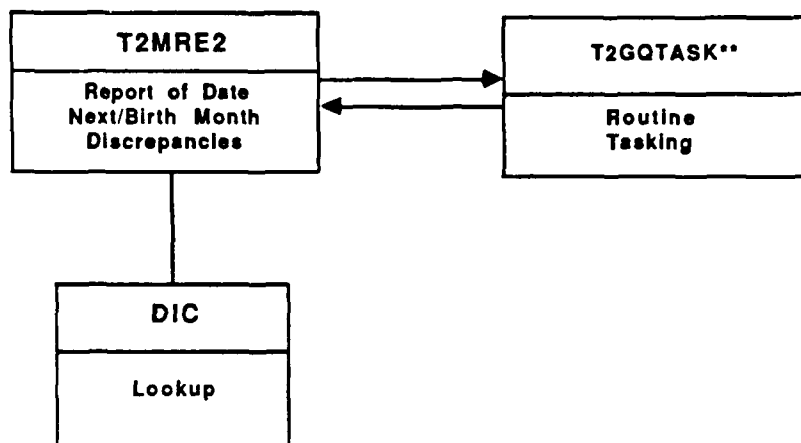


FIGURE 4-6
REPORT OF DATE NEXT/BIRTH MONTH DISCREPANCIES
OPTION ROUTINE STRUCTURE

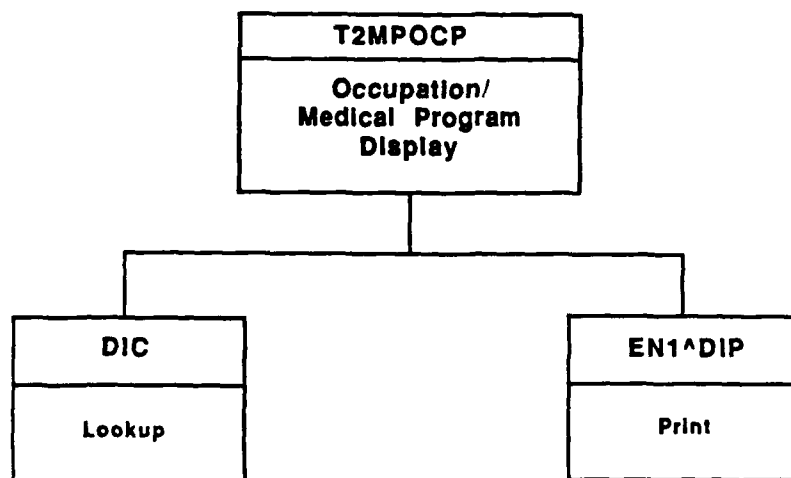


FIGURE 4-7
OCCUPATION/MEDICAL PROGRAM DISPLAY OPTION
ROUTINE STRUCTURE

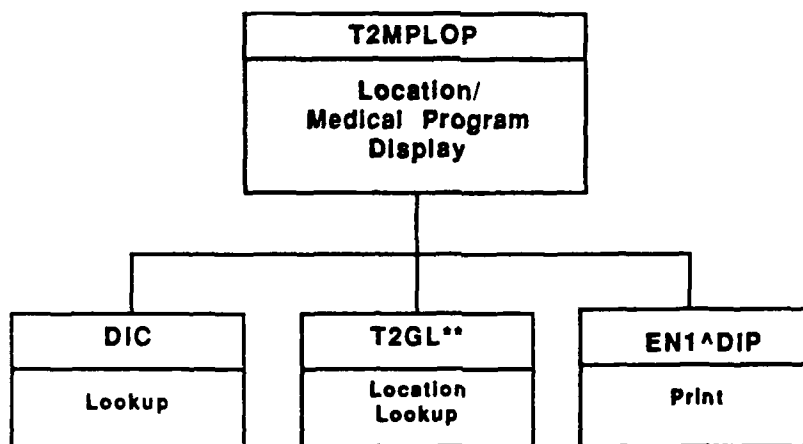


FIGURE 4-8
LOCATION/MEDICAL PROGRAM DISPLAY OPTION
ROUTINE STRUCTURE

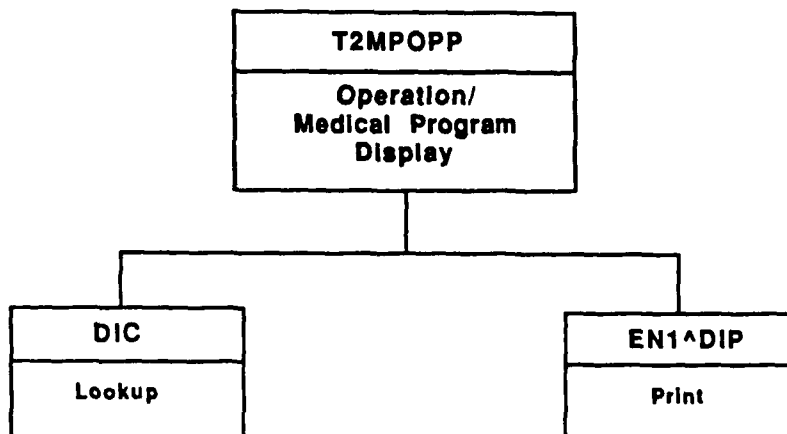


FIGURE 4-9
OPERATION/MEDICAL PROGRAM DISPLAY OPTION
ROUTINE STRUCTURE

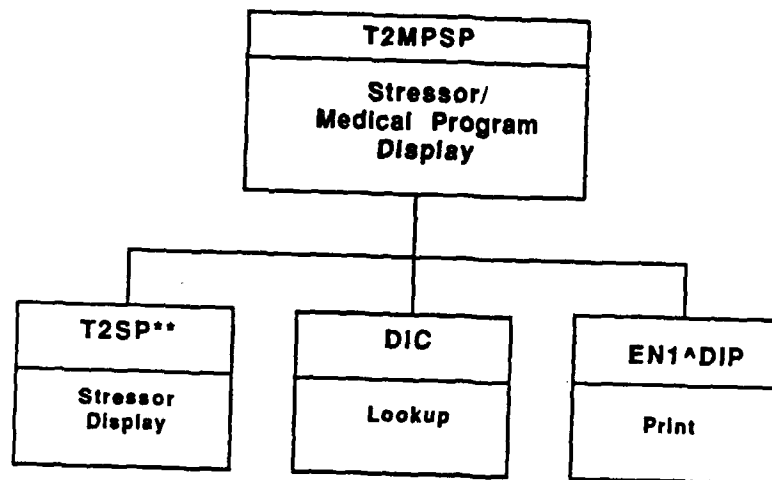


FIGURE 4-10
STRESSOR/MEDICAL PROGRAM DISPLAY OPTION
ROUTINE STRUCTURE

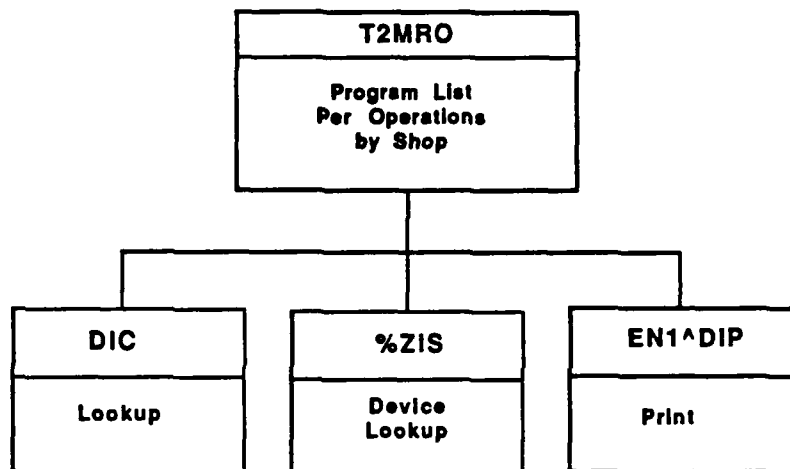


FIGURE 4-11
PROGRAM LIST PER OPERATIONS BY SHOP OPTION
ROUTINE STRUCTURE

calls routine DIC to select an agency and then prompts for an operation range. After calling routine %ZIS to select an output device, the routine loops through the Agency Unit file for units in the specified agency. For each Agency Unit, it calls routine DIP using print template OPERATIONS REPORT to generate a report.

4.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Location	---	1073	↑AGENCY(1073,	ADMIN	Read
Operation	---	1087	↑DIZ(1087,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read
Stressor	---	1083	↑STRESS(0,	ADMIN	Read

4.4.4 Variables

Routines T2MRR, T2MPOCP, T2MPLOP, T2MPOPP, and T2MPSP only use standard FileMan and utility variables. Routine T2MRP2 uses variable MP, for an Employee file entry number, in addition to standard FileMan variables. The variables used in routine T2MRE2 are standard FileMan or utility variables with the following additional variables:

- M1: An employee's name as an index
- MAG: The selected agency's entry number
- MAGP: The selected agency's Code/Abbreviation
- MBD: An employee's birth month
- MDN: The month of the next exam for an employee's program
- ME: An employee Enrollment subfile entry number and a pointer to a Medical Program file entry, used for searching

- MEX: An employee Enrollment subfile entry number and a pointer to a Medical Program file entry, used for printing
- MF: If the value is one, the employee's data has already been printed; otherwise, the value is zero
- MFQO: The Reexam Frequency for an employee Enrollment subfile entry
- MOCC: The pointer to an employee's occupation code
- MP: An Employee file entry number
- MREAS: Message text
- MSTR: The zero node for an Employee file entry
- MSTR1: The zero node of an employee Enrollment subfile entry being printed
- MX0: The zero node of an employee Enrollment subfile entry being searched

Routine T2MRO uses the following variables in addition to the standard FileMan variables:

- MA: An Agency Unit file entry number
- MAG: The selected agency's entry number
- MAGENCY: The selected agency's Code/Abbreviation
- MFROM: The starting operation code of an Operation Report
- MIO: The device characteristics for the Operation Report, saved for repeated calls to %ZIS
- MSHOP: An Agency Unit Code/Abbreviation
- MT0: The ending operation code for an Operation Report

5.0 SCHEDULE APPOINTMENTS

5.1 Introduction

The schedule appointments process allows the user to track, schedule, and notify employees who need to have medical examinations. In addition, the system can generate appointment lists for use by the shops or clinics and detailed exam protocols for each appointment.

Figure 5-1 illustrates the files and options used to enter data under this process. (An "x" at the end of an arrow indicates that data is deleted from a file when it is used by the option.) The Clinic file actually is an input to all scheduling options since it specifies whether a clinic uses a manual scheduling system or an automated scheduling system.

All appointments are entered into the Medical Appointment file, from which appointment notices are printed. Appointments under an automated scheduling system are also linked to the Medical Appointment Scheduling file. Options that are shown as interacting with the Medical Appointment Scheduling file are only used by clinics with an automated scheduling system. The clinic monthly template must be established before a month starts and before any appointments can be scheduled.

5.2 Enter/Edit Employees To Be Scheduled Option

5.2.1 Purpose

This option allows users to add, modify, or delete a program from an employee's To Be Scheduled subfile entries.

5.2.2 Overview

Routine T2MTE performs this option. Figure 5-2 illustrates the routine structure for this option. After calling routine T2PL to look up an employee, the routine locks the To Be Scheduled subfile, displays additional employee data, and sets the To Be Scheduled subfile zero node, if needed. Then the routine does a subfile lookup or add using routine DIC, sets up defaults based on the employee's corresponding Enrollment subfile entry, sets up valid frequencies for the program, and edits the To Be Scheduled subfile entry using routine T2GED. The routine will also call routine DIE to stuff the Date Exposure Reported from the corresponding employee Enrollment subfile entry, as necessary. The routine repeats the subfile lookup and processing until no entry is selected.

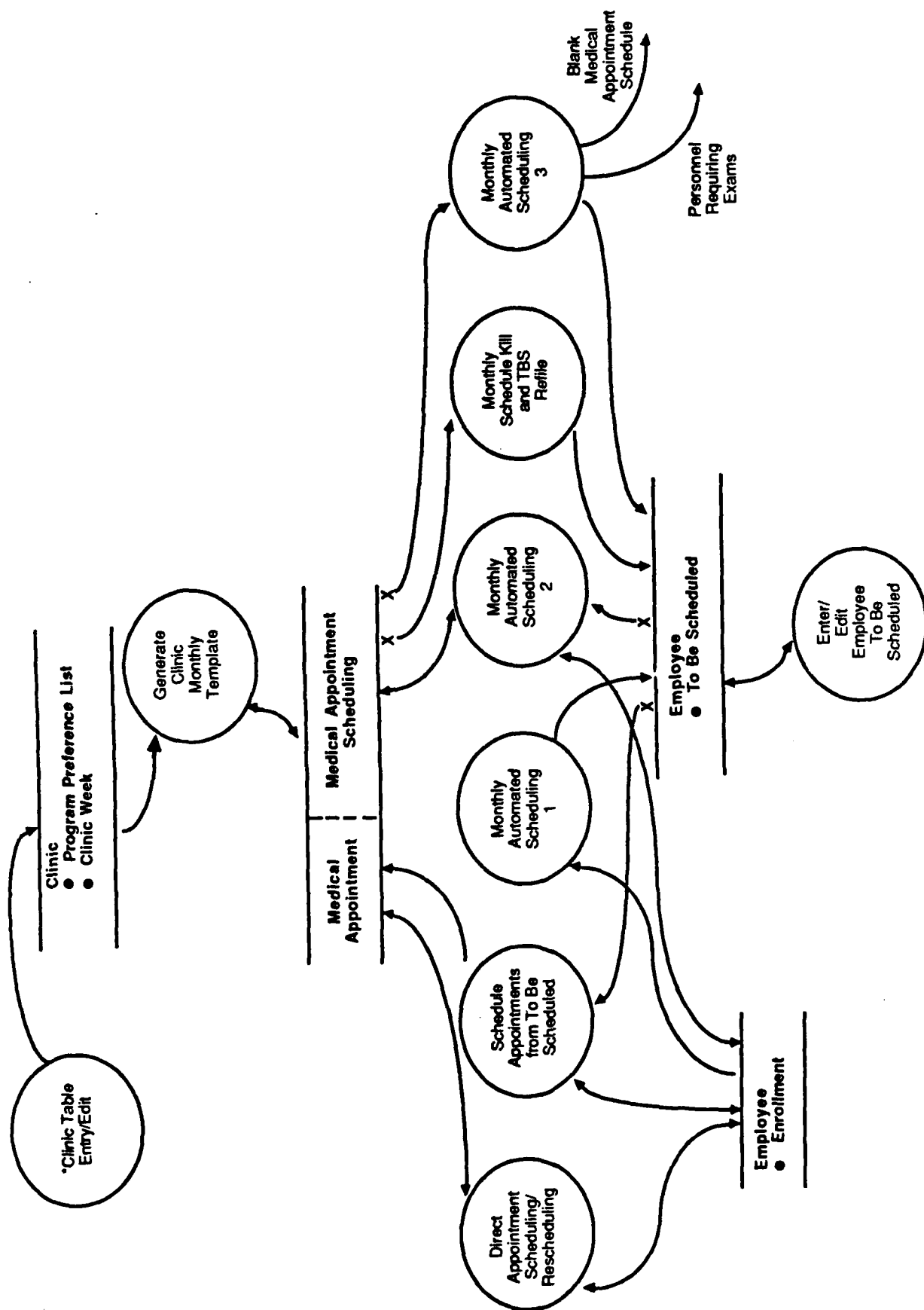


FIGURE 5-1
SCHEDULE APPOINTMENTS

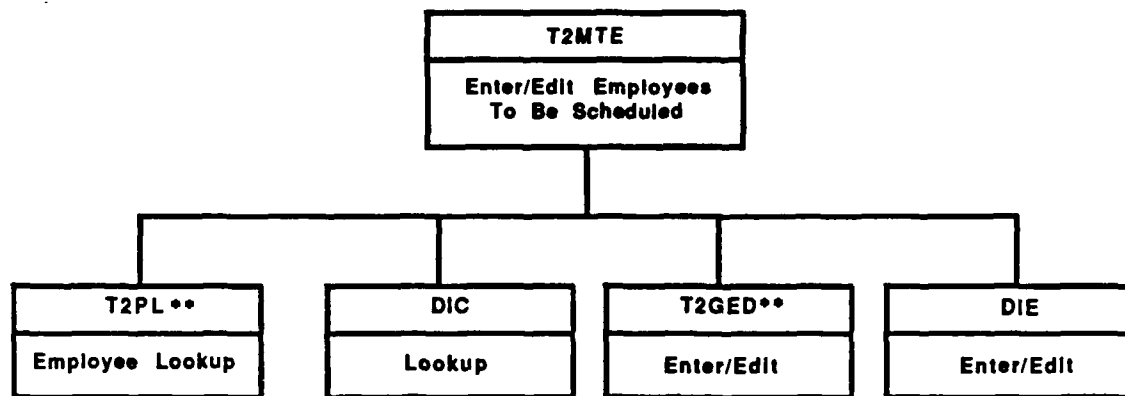


FIGURE 5-2
ENTER/EDIT EMPLOYEES TO BE SCHEDULED
OPTION ROUTINE STRUCTURE

5.2.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

5.2.4 Variables

In addition to the standard FileMan and T2GED variables used in this routine, the following variables are used:

- ME: A pointer to a Medical Program file entry and the corresponding employee To Be Scheduled subfile and Enrollment subfile entry numbers
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment
(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MP0: The zero node of the selected Medical Program file entry
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program

- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format
- MY0: The zero node of the employee Enrollment subfile entry for the selected program

5.3 Generate Clinic Monthly Template Option

5.3.1 Purpose

For clinics with automated scheduling systems, this option builds the empty monthly schedule for the specified month. It is also used to kill a template and regenerate it. The option can be used to create a template before the month begins or to edit it after the month has started.

5.3.2 Overview

This option is performed by routine T2MMT. Figure 5-3 illustrates the routine structure. The routine calls routine DIC to select a clinic and recalls DIC to create or look up the clinic entry in the Medical Appointment Scheduling file. After locking the Clinic and Medical Appointment Scheduling file entries, the routine sets up the zero node for the Date Scheduled subfile in the Medical Appointment Scheduling file. If the user wants to edit an existing template, control is passed to line DAY where the editing is done. Otherwise, a call to routine DIE edits the Next Month To Be Scheduled, which must be a future month. If appointments have been scheduled for that month, control is passed to line DAY to allow template editing. At line ASK, the user is given the option to build a template and, if the template exists without appointments, to delete the existing template. Deletion is done by repeated calls to routine DIK. A new template is built by lines DT through MTS which use routine JIC to create the Date Scheduled and Time Slot Start Time entries on subfile lookups, and routine DIE to stuff appropriate data from the Clinic file generic weekly schedule.

Starting at line DAY, the user is first allowed to review any existing template entries through a call to routine T2MAD. The template edit process uses a subfile call to routine DIC to select a date and routine DIE to edit data for that date. If the date is designated as a holiday or administrative day, all the time slots for that day are also stamped with the same designation using routine DIE and control is passed back to line DAY to get another day. For a date that is not a holiday or administrative day, control passes to line TS. Here the routine gets a time, edits it using routine T2GTIM, and calls routine DIC to provide a question mark response or to look up a subfile entry. A selected subfile entry is then edited using routine T2GED.

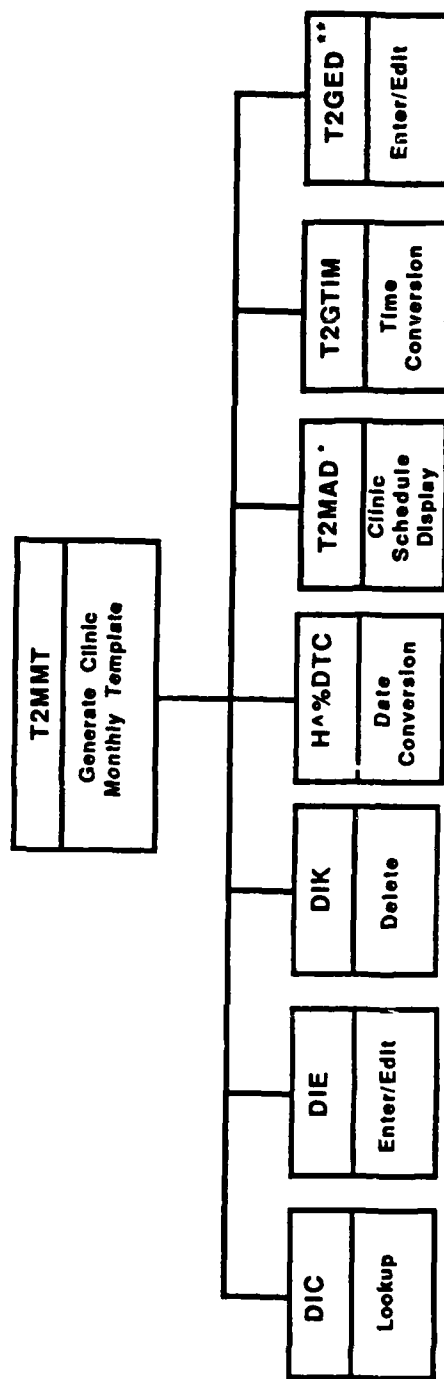


FIGURE 5-3
GENERATE CLINIC MONTHLY TEMPLATE
OPTION ROUTINE STRUCTURE

5.3.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Update
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update

5.3.4 Variables

The following variables are used by routine T2MMT in addition to standard FileMan and utility variables:

- MCE: The end of the clinic day
- MCL: A Clinic file entry number and the corresponding Medical Appointment Scheduling file entry number
- MDT: The last day of the Next Month To Be Scheduled
- MDY: (1) In FileMan format, the first date found in a clinic Medical Appointment Scheduling file entry that is in or after the clinic Next Month To Be Scheduled field value
(2) The internal value and entry number of a day in the clinic's generic weekly schedule
- MH: The internal value of the field which designates a day or time slot as holiday, administrative, or clinic in session
- MMT: (1) The month and year of the Next Month To Be Scheduled in FileMan format
(2) A Date Scheduled entry in FileMan format and the corresponding subfile entry number in the Medical Appointment Scheduling file
- MSC: The internal value of a clinic Which Scheduling Used field
- MT0: The zero node for a time slot entry in the clinic's generic weekly schedule

- MTS: A Time Slot Start Time under either the clinic's Clinic Day subfile or the Date Scheduled subfile of the Medical Appointment Scheduling file. This is also the corresponding entry number.

5.3.5 Remarks

Changes in the Clinic, Holiday, or Administrative Time field will set off FileMan triggers that are used to zero out time slot capacities and adjust available capacities accordingly. The Program Preference field under a time slot uses the entries in the clinic's Program Preference List to screen for valid entries. The T2GED edit on time slots only allows a non-zero capacity if the time slot is not a holiday or administrative time.

5.4 Direct Appointment Scheduling/Rescheduling Option

5.4.1 Purpose

This option allows a user to schedule an appointment without using To Be Scheduled subfile entries. It also can be used to modify an appointment's date or time and edit other appointment data such as programs. Changes to a date, time, or included programs will result in a new appointment notice being generated.

5.4.2 Overview

Routine T2MSE performs this option. Figure 5-4 illustrates the routine structure for the option. First, the routine calls routine DIC to select a clinic and locks the clinic schedule entry. Next, an employee covered by the clinic is selected using routine T2PL, additional employee data is displayed, and the user is warned if the employee has To Be Schedule subfile entries. The routine then calls routine DIC to add a Medical Appointment file entry or select an existing entry that has a current or future Date Scheduled. Next, the file entry is locked, as is the clinic's Medical Appointment Scheduling entry, if appropriate. Then the entry is edited using routine T2GED and the program subfile zero node is set. For the selected appointment, the routine then loops on the Medical Program Scheduled subfile, adding or selecting an entry using DIC, setting up defaults based on the employee's corresponding Enrollment subfile entry, setting up valid frequencies for the program, and calling T2GED to edit the subfile entry. The routine will also call routine DIE to stuff the Date Exposure Reported in the subfile entry from the corresponding employee Enrollment subfile entry, as necessary.

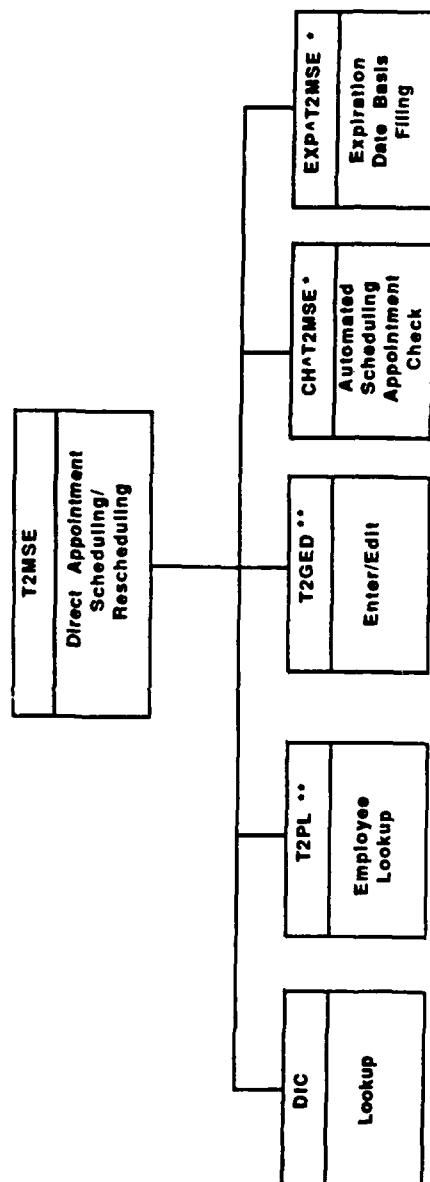


FIGURE 5-4
DIRECT APPOINTMENT SCHEDULING/RESCHEDULING
OPTION ROUTINE STRUCTURE

If the clinic uses the automated scheduling system, then once the user stops the program subfile loop, the routine calls the Automated Scheduling Appointment Check utility to do the necessary additional checking and filing. The routine also calls the Expiration Date Basis Filing utility to process the Expiration Date Basis in the employee's Enrollment subfile entry. Finally, the routine returns control to line ENT to process the next employee appointment.

5.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Appointment Notices	---	1145	↑MED(1145,	MES	Read
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

5.4.4 Variables

In addition to the standard FileMan and T2GED variables, this routine uses the following variables:

- MAG: A pointer to an employee's agency
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number

- MDO: The original appointment Date Scheduled in FileMan format
- MDS: The edited appointment Date Scheduled in FileMan format
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment subfile and the appointment Medical Program Scheduled subfile
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment
(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero
- ML: The internal value for the length of the clinic's time slots or zero if the length is a day
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MPO: The zero node of the selected Medical Program file entry
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program
- MS: A Medical Appointment file entry number
- MSC: The internal value of a clinic Which Scheduling Used field
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format
- MTB: An appointment Time Scheduled
- MY: The variable GDA value for the Medical Appointment file entry being processed
- MYO: The zero node of the employee Enrollment subfile entry for the selected program

5.4.5 Remarks

Lines CH through EX constitute the Automated Scheduling Appointment Check utility that verifies and files appointment data for a clinic with an automated scheduling system. This utility is discussed in Section 9.4.

The Expiration Date Basis Filing utility includes lines EXP through the end and processes the Expiration Date Basis for an employee's Enrollment file entries. This utility is discussed in Section 9.5.

5.5 Schedule Appointments from To Be Scheduled Option

5.5.1 Purpose

This option enables users to schedule a new appointment or add to an existing appointment using the programs in an employee's To Be Scheduled subfile. The To Be Scheduled subfile entries can be processed for a selected employee or in the order in which the employees occur in the file.

5.5.2 Overview

This option is performed by routine T2MTS. Figure 5-5 presents the routine structure. First, the routine calls routine DIC to select a clinic and locks the clinic schedule entry. In line ASK, the user selects the processing order. If the records are to be processed in Employee file order, line NX will find the next employee covered by the specified clinic and, with entries in the To Be Scheduled subfile, call line NXE to process the employee and return control to line ASK. If the user wants to select an employee, control is passed to line EMP, which uses routine T2PL to select an employee covered by the specified clinic, calls line NXE to process the employee, and repeats until no employee is selected.

The employee processing starting in line NXE first locks the employee's Enrollment subfile and, as appropriate, the clinic's Medical Appointment Scheduling entry. Then, additional employee data is displayed. If there are no To Be Scheduled subfile entries for the employee, the user is told and processing for the employee is stopped. Otherwise, the routine displays the To Be Scheduled entries, by calling routine DIP using print template EMP REQ EXAMS-DISP, and continues processing. Next, routine DIC is called to show the employee's existing future or current appointments and allow the user to select an existing entry or add a new entry. The file entry is then added to the locked files. Line NEW edits a new entry using routine T2GED. Finally, the routine uses the Move To Be Scheduled to Appointment utility to either incorporate the To Be Scheduled file entries into a new or existing appointment and delete them from the To Be Scheduled file or, at the user's request, leave them in the To Be Scheduled file.

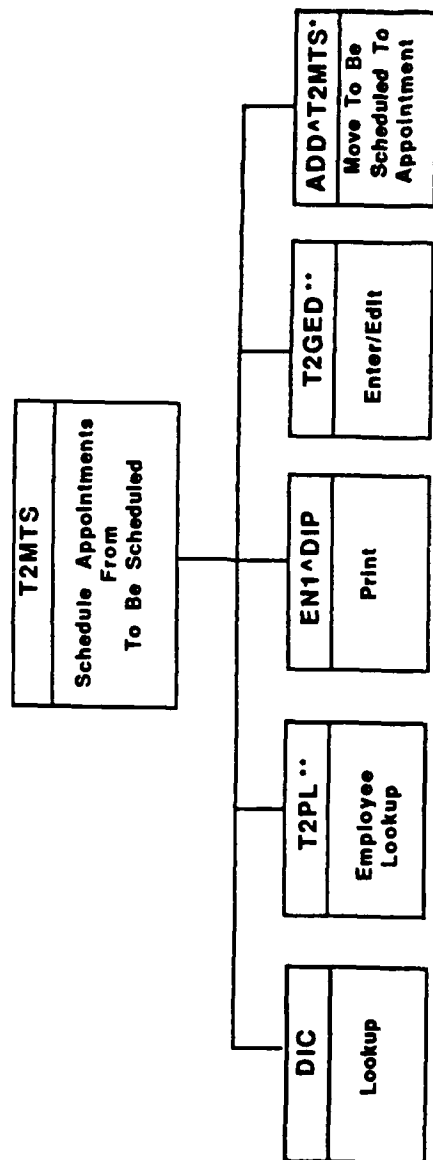


FIGURE 5-5
SCHEDULE APPOINTMENTS FROM TO BE SCHEDULED
OPTION ROUTINE STRUCTURE

5.5.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Appointment Notices	---	1145	↑MED(1145,	MES	Read
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

5.5.4 Variables

In addition to standard FileMan and T2GED variables, this routine uses the following variables:

- MAG: A pointer to an employee's agency
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling entry number
- MDS: The edited appointment Date Scheduled, in FileMan format
- ML: The internal value for the length of the clinic's time slots or zero if the length is a day
- MOCC: A pointer to an employee's occupation code

- MP: An Employee file entry number
- MS: A Medical Appointment file entry number
- MSC: The internal value of a clinic Which Scheduling Used field
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format

5.5.5 Remarks

Lines ADD through EX1 are the Move To Be Scheduled To Appointment utility that processes the To Be Scheduled file entries in light of the selected appointment. This utility is discussed in Section 9.7.

See Section 9.6 for a discussion of some standard triggers and edits on appointment data.

5.6 Monthly Automated Scheduling Option

5.6.1 Purpose

Use of this option varies depending on the clinic scheduling system. For a clinic using a manual scheduling system, this option is used once each month to select the enrollment programs that have a Date Next Exam in the month being selected. In Figure 5-1, this selection step is labelled Monthly Automated Scheduling 1.

For a clinic using an automated scheduling system with the filled time slot capability, this option is used at least once a month to select enrollment programs and to schedule any programs in the To Be Scheduled subfile. This option can be rerun to do more scheduling using the To Be Scheduled subfile. In Figure 5-1 the scheduling step is labelled Monthly Automated Scheduling 2.

For a clinic with an automated scheduling system and the blank time slot capability, this option is used to do the monthly selection, do preliminary scheduling, generate the reports used by shops in scheduling, and move the preliminary appointments back to the To Be Scheduled subfile. In Figure 5-1, the final step, which generates reports and moves appointment data back to the To Be Scheduled subfile, is labelled Monthly Automated Scheduling 3.

This option cannot be used while anyone is processing the Employee, Clinic, or Medical Appointment files.

5.6.2 Overview

Routine T2MMS performs this option. The option routine structure is illustrated in Figure 5-6. First, the routine calls routine DIC to select a clinic and locks the Clinic file entry, clinic schedule, and the full Employee file. Next, the user is asked to specify the Next Month to be Selected using routine DIE. If the specified month has been selected already, the next action depends on the clinic scheduling system. For a manual scheduling system, the user will be returned to line MS to repeat the Next Month to be Selected prompt. For an automated scheduling system, the routine will ask if a second scheduling run is needed. If not, the routine will exit unless the Clinic Assignment Flag indicates that it is a blank time slot system in which case the user is asked if reports are to be generated and the schedule reset.

Whatever the selected process is, the next step for an automated scheduling system is a call to routine DIE to select the Next Month to be Scheduled. For either scheduling system, the routine next displays the clinic parameters using print template CLINIC PARAMETERS and routine DIP. For automated scheduling systems, the clinic schedule for the month is also displayed through a call to routine T2MAD. If the parameters are verified as correct, control is passed to routine T2GQTASK which queues the routine to be run on a selected device at a specified time and passes control back to T2MMS at line EX. If a job was not queued, control is passed back to line ASK. Otherwise, processing is complete until the system Task Manager returns control to T2MMS at line GO.

Starting at line GO, the routine relocks the pertinent files (which were unlocked when the task was filed), reestablishes the device parameters by calling routine %ZIS, and does a Scheduled Month subfile lookup or add in the Clinic file. If the subfile entry indicates that selection has been done, the selection process is bypassed.

Lines AG through DL perform the selection process. For each agency covered by the clinic, the agency's employee Enrollment subfile entries are reviewed. If an Enrollment subfile entry has a Date Next Exam in the month being selected, the Enrollment subfile data for that employee's program is filed in the To Be Scheduled subfile using the To Be Scheduled Filing utility. If the program is a periodic enrollment, the routine simply loops back to review the next program. If the program is one-time or periodic but is removed, the Date Next Exam is deleted from the Enrollment entry using routine DIE. For one-time enrollments, the enrollment is removed using routine DIE and the removal history is filed using the Enrollment History Filing utility. Once the selection process is completed, the Today's Date is filed in the clinic Scheduled Month subfile entry for the month selected using routine DIE.

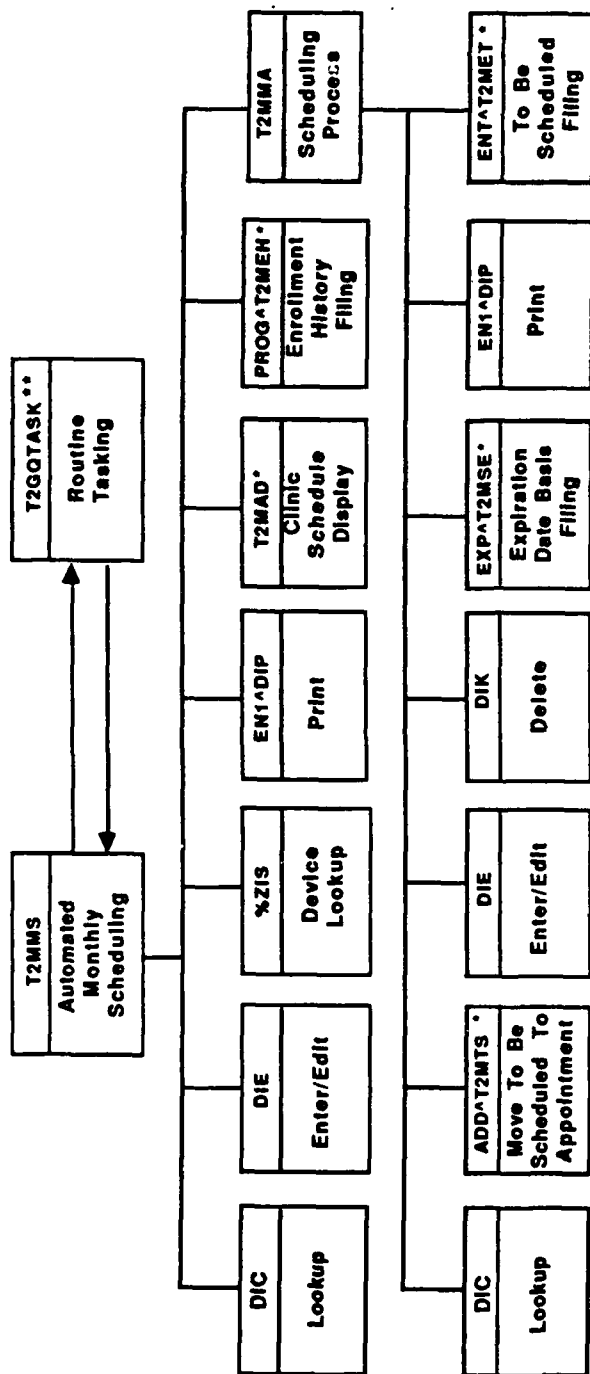


FIGURE 5-6
AUTOMATED MONTHLY SCHEDULING
OPTION ROUTINE STRUCTURE

Next, control is passed to routine T2MMA, which will pass control back to T2MMS for a manual scheduling system. For an automated scheduling system, if the user has asked for report generation and schedule reset, routine T2MMA passes control to line END. Routine DIP then generates the report using print templates BLANK APPT HEAD and BLANK APPT LIST and sort template SHOP APPT BY DATE. Next, the appointments scheduled for the clinic in the month being processed by the Automated Monthly Scheduling option are deleted from the Medical Appointment Scheduling file using routine DIK, are moved to the To Be Scheduled file using the To Be Scheduled Filing utility, and finally are deleted from the Medical Appointment file using routine DIK. Once the moves and deletions are completed, another report is printed using print templates EMP REQ EXAMS and EMP REQ EXAMS HEAD, sort template EMP REQ EXAMS, and routine DIP. Then control is passed back to routine T2MMS.

For a scheduling run under an automated scheduling system, routine T2MMA will first load pertinent data for all the employees with To Be Schedule file entries into a scratch file. Then lines SCH through K process the scratch file entries by adding the programs to an existing appointment using the Move To Be Scheduled to Appointment utility or by scheduling a new appointment. If an appointment is scheduled, the To Be Scheduled entries are deleted; otherwise, they are left as is. After the scratch file entries have been processed, control is passed back to routine T2MMS, and processing is complete.

5.6.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Update
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Appointment Notices	---	1145	↑MED(1145,	MES	Read
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read
Scratch	---	---	↑U(\$J,	---	---

5.6.4 Variables

In addition to the standard FileMan, T2GOTASK, and T2GED variables, this option uses the following variables:

- M0: The zero node of an Employee file entry
- MAF: A zero value indicates that the To Be Scheduled subfile entries were added to the existing appointment; a one indicates that they were not added
- MAG: A pointer to an employee's agency
- MAU: A pointer to an employee's agency unit
- MB: Existence of this variable indicates that the system should perform report generation and reset the schedule
- MCA: The internal value of the Clinic Assignment Flag field
- MCE: The end of a clinic day
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDAT1: The starting date in FileMan format for the month being processed
- MDAT2: The end date in FileMan format for the month being processed
- MDI: The month and year for the month being scheduled, in FileMan format

- MDS: (1) A clinic Date Scheduled in FileMan format and the entry number within the Date Scheduled subfile in the Medical Appointment Scheduling file; this is used to loop through the possible dates
(2) The appointment Date Scheduled, in FileMan format
- MDT: An existing appointment Date Scheduled, in FileMan format, and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- MDX: The end date for the month being displayed, in FileMan format
- MF: A pointer to a Medical Program file entry and the corresponding entry numbers in an employee Enrollment subfile, an employee To Be Scheduled subfile, a clinic Program Preference List subfile, and an appointment Medical Program Scheduled subfile
- MIO: The device characteristics saved for repeated calls to %ZIS
- ML: The internal value for the length of the clinic's time slots or zero if the length is a day
- MMS: The month and year portion of the FileMan format for the month being selected
- MP: An Employee file entry number
- MPN: If null, there are no entries in the employee To Be Scheduled subfile; if "N", none of the entries was in the clinic Program Preference List subfile; otherwise, it is a pointer to the first program in the employee To Be Scheduled subfile that was also in the clinic Program Preference List subfile
- MPP: The internal value of a clinic Program Preference Flag field
- MS: A Medical Appointment file entry number and the corresponding Employee Scheduled subfile entry number in the Medical Appointment Scheduling file
- MSB: In FileMan format, the first date in the clinic schedule template for the month being scheduled
- MSC: The internal value of a clinic Which Scheduling Used field

- MSD: The starting and ending date in FileMan format, used in the search for an available appointment
- MSE: In FileMan format, the last date of the month being scheduled
- MSH: The internal value of an employee's shift or zero if there is no shift in the employee entry
- MT: The number of consecutive time slots needed to schedule an employee To Be Scheduled subfile entry
- MTB: (1) A clinic Time Slot Start Time, in FileMan format, and the entry number within the Time Slot Start Time subfile in the Medical Appointment Scheduling file; this is used to loop through the possible times
(2) The appointment Time Scheduled, in FileMan format
(3) The inverse of the Time Slot Start Time entry number used to delete appointments from a time slot
- MTBS: (1) The data in an employee To Be Scheduled subfile entry
(2) The data to be filed in a To Be Scheduled subfile entry
- MTH: A subscript in the scratch file that stands for 1E7-MT, i.e., an inversion of the number of consecutive time slots needed to schedule the employee To Be Scheduled file entries
- MTI: (1) The starting time for a clinic schedule display
(2) A counter used to file the appointment pointer into all the covered time slots in the Medical Appointment Scheduling file
- MTIM1: The starting time for the appointments being listed
- MTIM2: The end time for the appointments being listed
- MTQ: The starting time for the search for an available time slot that meets the program preference criteria and can be used as an appointment's first time slot
- MTS: (1) The total of the Estimated Minutes for Exam fields of the Medical Program file entries corresponding to employee To Be Scheduled subfile entries
(2) A Time Slot Start Time and the corresponding Time Slot Start Time subfile entry number used in the Medical Appointment Scheduling file to search for additional available time slots

- (3) The inverse of a Time Slot Start Time subfile entry number, used to delete appointments from a time slot
- (4) The End of Appointment

- MTX: The end time for a clinic schedule display
- MX: (1) The clinic Scheduled Month subfile entry for the month being selected
(2) The number of consecutive time slots needed to schedule employee To Be Scheduled file entries
- MY0: The zero node of an employee Enrollment file entry

5.6.5 Remarks

The Clinic Schedule Display utility is discussed in Section 9.8. The To Be Scheduled Filing utility is reviewed in Section 9.9. The Enrollment History Filing utility is discussed in Section 9.10. The Move To Be Scheduled to Appointment utility is discussed in Section 9.7. Section 9.5 discusses the Expiration Date Basis Filing utility. See Section 9.6 for a discussion of some standard triggers and edits on appointment data.

The system processes scratch file entries in lines SCH through K of routine T2MMA as follows. First the system looks at entries with a program preference, then the system processes entries by shift. Within a program preference and shift, the system handles the longest appointments first and, for appointments of the same length, processes entries for a specific agency unit. Thus, the system schedules the most restricted appointments first, i.e., those with program preferences or requiring considerable time, and then takes shop appointments for the same shift and spreads them out over the month so that not all personnel are missing from the shop at one time.

The spreading out of shop appointments is accomplished by the algorithm that selects the appointment date and time. For each scratch file entry, the system first identifies existing appointments for the employee using routine DIC. If there is only one appointment, the system will try to add the entry being processed to the appointment using the Move To Be Scheduled to Appointment Filing utility. If the attempt to add is not successful or if there is more than one existing appointment, the scratch file entry processing is by-passed, leaving the To Be Scheduled subfile entries as is. If there are no appointments, the system tries to schedule one by searching the month being scheduled. Each time an appointment is scheduled, the next search will start on the day after the appointment date to avoid scheduling employees from the same shop and shift on the same day.

When an appointment is scheduled using routines DIC and DIE, the employee's To Be Scheduled subfile entries are deleted using routine DIK and the Expiration Date Basis filing utility is run to process the Expiration Date Basis for the employee's Enrollment subfile entries. When an appointment is not scheduled, the To Be Scheduled subfile entries are left as is.

After scheduling is completed, there will still be entries in the To Be Scheduled subfile if the system could not schedule them for one of the following reasons:

- The employee had more than one existing appointment already
- The employee had one existing appointment, but the appointment could not accommodate automatically the added programs
- The programs include a program preference and the clinic's Program Preference Flag indicates that preferred programs are to be scheduled manually, i.e., directly
- During the month being scheduled, there were not enough contiguous available time slots to accommodate the length of the exams
- Sufficient contiguous available time slots were found, but one of the time slots was assigned a shift that did not match the employee's shift
- The employee had a preferred program and the clinic's Program Preference Flag specified that the system was to do the scheduling, but the system could not find an available time slot that matched the employee's program preference with sufficient contiguous available time slots that matched the employee's shift

The EMP REQ EXAMS sort template uses the Count To Be Scheduled computed field from the Employee file to identify and select only employees that have To Be Scheduled subfile entries.

5.7 Monthly Schedule Kill and TBS Refile Option

5.7.1 Purpose

For a clinic with an automated scheduling system, this option allows users to delete all scheduled appointments for a month and move the programs into the employee's To Be Scheduled subfile.

5.7.2 Overview

This option is performed by routine T2MMK. Figure 5-7 presents the routine structure. First, a clinic is selected using routine DIC and the

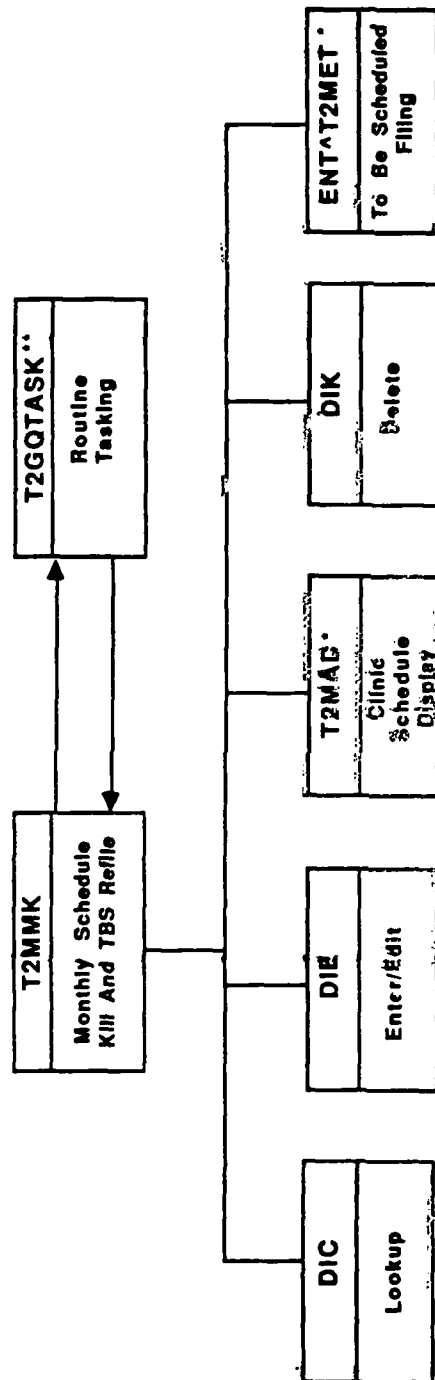


FIGURE 8-7
MONTHLY SCHEDULE KILL AND TBS REFILE
OPTION ROUTINE STRUCTURE

system locks the Clinic file entry, clinic schedule, and the full Employee file. Using routine DIE, the system gets the Next Month To Be Scheduled, which in this case is the month to be reset. After verifying that there is a monthly template for the month and that it is a future month, the system calls the Clinic Schedule Display utility to produce the clinic schedule for the month. If the user indicates that the option is to be run, control is passed to routine T2GQTASK which queues the routine to be run on a selected device at the specified time and passes control back to T2MMK at line EX. If a job was not queued, control is passed back to line ASK. Otherwise, processing is complete until the system Task Manager returns control to T2MMK at line GO.

Starting at line GO, the routine relocks the pertinent files (which were unlocked when the task was queued). Then, the clinic's appointments for the selected month are deleted from the Medical Appointment Scheduling file using routine DIK, are moved to the To Be Scheduled file using the To Be Scheduled Filing utility, and finally are deleted from the Medical Appointment file using routine DIK.

5.7.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Update
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read

5.7.4 Variables

This option uses the following variables, in addition to the standard FileMan and utility variables:

- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling entry number
- MDI: The month and year for the month being reset in FileMan format
- MDT: An appointment Date Scheduled in FileMan format and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- MDX: The end date, in FileMan format, for the month being displayed
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in an employee To Be Scheduled subfile and an appointment Medical Program Scheduled subfile
- MP: An Employee file entry number
- MS: A Medical Appointment file entry number and the corresponding Employee Scheduled subfile entry number in the Medical Appointment Scheduling file
- MSB: In FileMan format, the first date in the clinic's schedule template for the month being reset
- MSC: The internal value of a clinic Which Scheduling User field
- MSE: In FileMan format, the last day of the month being reset
- MTBS: The data to be filed in a To Be Scheduled entry
- MTI: The starting time for a clinic schedule display
- MTS: The inverse of a Time Slot Start Time subfile entry number
- MTX: The end time for a clinic schedule display

5.7.5 Remarks

The To Be Scheduled Filing utility is discussed in Section 9.9. The Clinic Schedule Display utility is reviewed in Section 9.8. See Section 9.6 for a discussion of some standard triggers on appointment data.

5.8 Scheduling Output Options

5.8.1 Purpose

The following seven options produce reports that help the user manage appointment scheduling and identify exam protocols for an appointment, a program, or overall:

- Display/Print Personnel Requiring Exams
- Available Capacity Grid Display
- Employee Medical Exam Protocol
- Medical Exam Protocol for Program
- Medical Exam List
- Appointment List by Clinic
- Appointment List by Shop

5.8.2 Overview

All of the options are routine options. The Display/Print Personnel Requiring Exams option is produced by routine T2MRP1, which calls routine DIC to select a clinic and then calls routine DIP, using sort template EMP REQ EXAMS and print templates EMP REQ EXAMS and EMP REQ EXAMS HEAD, to generate the report. Figure 5-8 presents the routine structure for this option.

The Available Capacity Grid Display option is produced by routine T2MAD which is the Clinic Schedule Display utility discussed in Section 9.8.

The Employee Medical Exam Protocol option is generated by routine T2MRS1. Figure 5-9 illustrates the routine structure. If the user wants the protocols for a clinic day, the routine uses routine DIC to select a clinic and routine %DT to select a date. If the user wants the protocol for one appointment, routine DIC is used to select an appointment. In either case, routine %ZIS is used to select a device and then routine T2MRS1A is called. Routine T2MRS1A sets up several report variables, selects the tests appropriate for the appointment programs and the appointment program exam types and for the employee's age and sex, and sets up a scratch file with all the identified tests and the tests' ascendants. Routine T2MRS1C is called to print the appointment protocol. It prints the report header, the employee's program enrollment data,

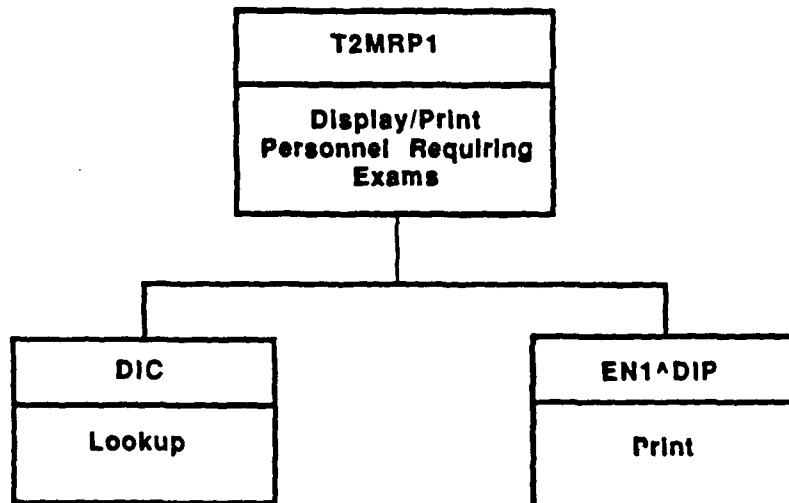


FIGURE 5-8
DISPLAY/PRINT PERSONNEL REQUIRING EXAMS
OPTION ROUTINE STRUCTURE

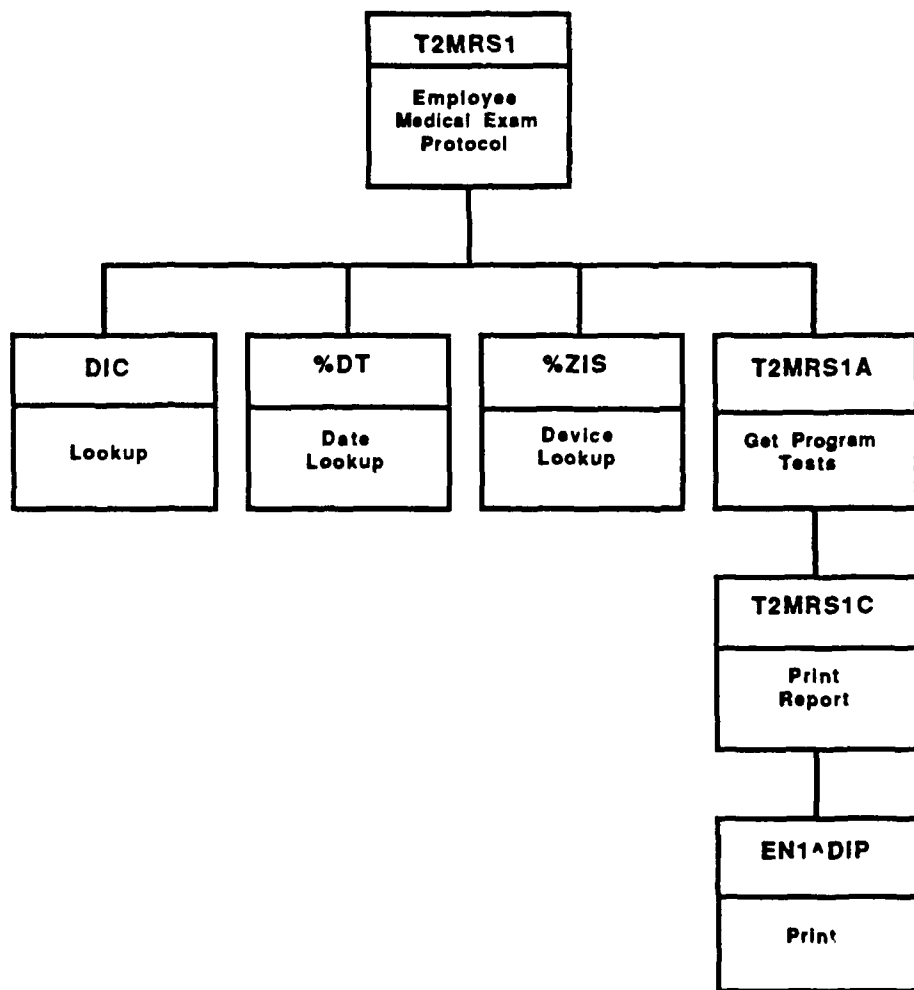


FIGURE 5-9
EMPLOYEE MEDICAL EXAM PROTOCOL
OPTION ROUTINE STRUCTURE

and the identified protocol and finally calls routine DIP, using sort template OVER EXP and print template T2SF600 (some installations may use EXPOSURES FOR MEDICAL PROTOCOL), to print the employee's exposure history. Once the report is completed, routine T2MRS1 will go on to the next appointment, for clinic day processing, or will go back to the start of the routine.

The Medical Exam Protocol for Program option is performed by routine T2MRS3. The routine structure is illustrated in Figure 5-10. This routine calls routine DIC to select a program, calls routine %ZIS to select a device, calls routine DICD to warn the user that the system will take some time to process the data, sets up a scratch file with the program tests and their test ascendants, and prints the report using routine T2MRS3A.

Routine T2MRS2 performs the Medical Exam List option. It uses routine %ZIS to select a device and then prints the report. The routine structure is presented in Figure 5-11.

The Appointment List by Clinic option is performed by routine T2MRA6, which uses routine DIC to select a clinic, routine %DT to verify start and end dates, routine T2GTIM to verify start and end times, and routine DIP to print the report with print templates APPT LIST and APPT LIST HEAD1. Figure 5-12 presents the routine structure.

Routine T2MRA7 does the Appointment List by Shop option using routine DIC to select a clinic, routine %DT to verify start and end dates, routine T2GTIM to verify start and end times, and routine DIP to print the report with sort template SHOP APPT LIST and print templates APPT LIST and APPT LIST HEAD2. The routine structure is illustrated in Figure 5-13.

5.8.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Read
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Read

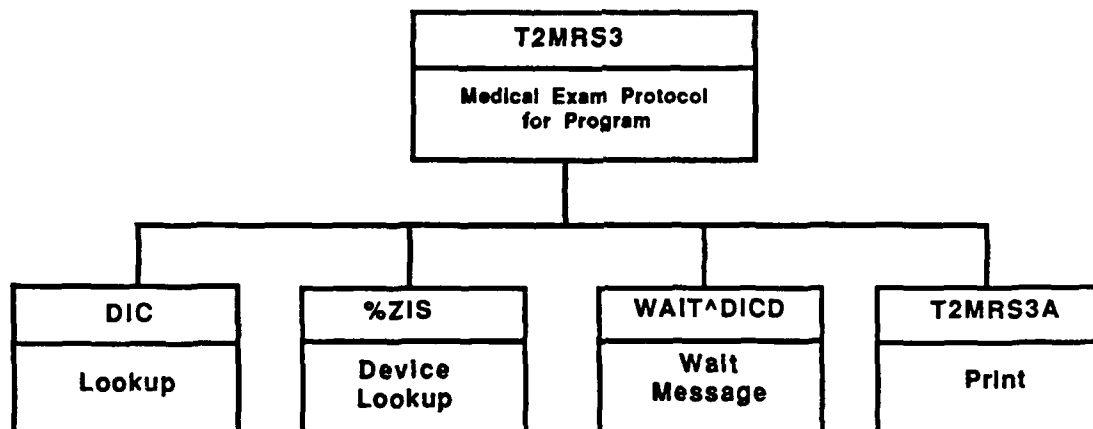


FIGURE 5-10
MEDICAL EXAM PROTOCOL FOR PROGRAM
OPTION ROUTINE STRUCTURE

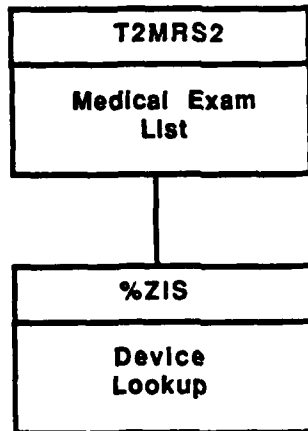


**FIGURE 5-11
MEDICAL EXAM LIST OPTION
ROUTINE STRUCTURE**

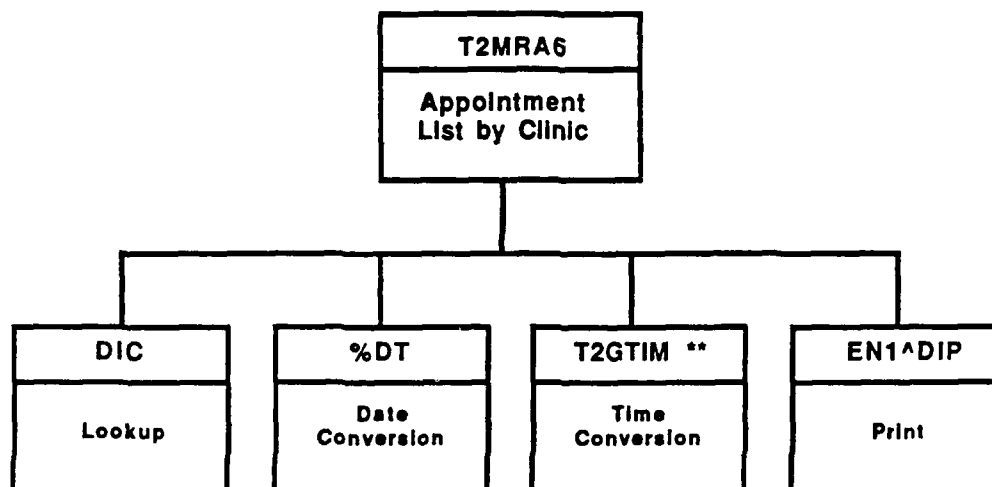


FIGURE 5-12
APPOINTMENT LIST BY CLINIC OPTION
ROUTINE STRUCTURE

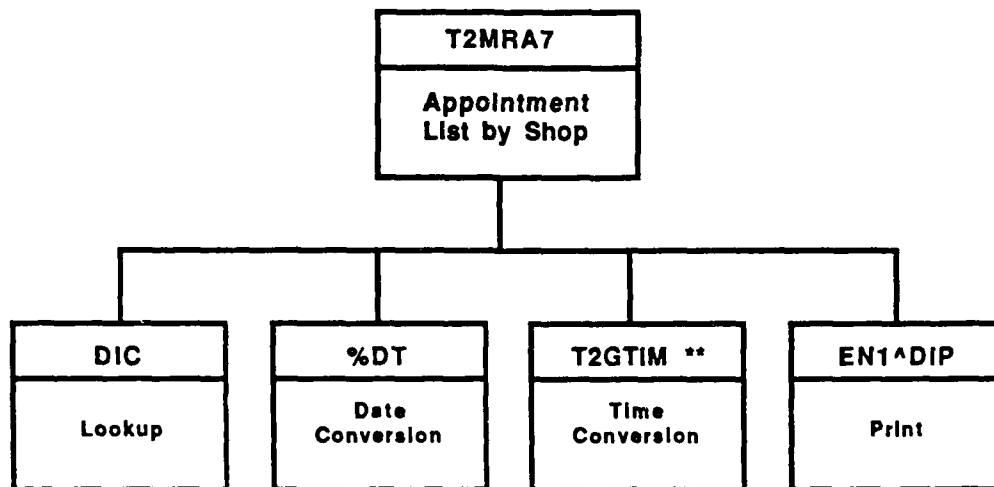


FIGURE 5-13
APPOINTMENT LIST BY SHOP OPTION
ROUTINE STRUCTURE

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Tests	---	1129	↑MED(1129,	MES	Read
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read
Stressor	---	1083	↑STRESS(0,	ADMIN	Read
Sample Survey	---	1124	↑ESAMP(	EE	Read
Scratch	---	---	↑UTIL(\$J,	---	Update

5.8.4 Variables

In addition to standard FileMan variables, routine T2MRP1 uses variable MCL which is a pointer to a Clinic file entry.

Routines T2MRS1, T2MRS1A, and T2MRS1C use the following variables which are not standard FileMan or utility variables:

- M1: A Medical Program Tests file entry and the corresponding scratch file entry number
- MA: A pointer to an ascendant of a Medical Program Tests file entry
- MAG: A pointer to an employee's agency
- MAGE: An employee's age
- MBADG: An employee's local badge number
- MCL: A Clinic file entry number
- MCLIN: A pointer to an appointment's clinic
- MCOD: A pointer to an employee's agency unit
- MCUT: In FileMan format, the date for one year earlier than the current date, used to limit survey data shown

- MDAT: The selected clinic date in FileMan format
- MDATE: An appointment date in FileMan format
- MDOB: An employee's birthdate in FileMan format
- ME: A Medical Program file entry number and the corresponding entry number in an appointment Medical Program Scheduled subfile
- MEN: A pointer to an Employee file entry
- MIQ: The device characteristics saved for repeated calls to %ZIS
- MJOB: An employee's job title
- MNAM: An employee's name
- MOCC: A pointer to an employee's occupation code
- MP: A pointer to an Employee file entry
- MS: A Medical Appointment file entry number
- MSEX: An employee's sex in internal format
- MSHF: An employee's shift in internal format
- MSSN: An employee's social security number
- MST: The zero node of an appointment Medical Program Scheduled subfile entry
- MSTR: The zero node of an Employee file entry
- MT: A Medical Program Tests file entry number and the corresponding entry number in a program Test subfile
- MTQ: The zero node for a program Test subfile entry
- MTAB: (1) The number of indents to be made before printing a Medical Program Tests entry; this is the same as the number of ascendant entries
(2) The column in which to print
- MTIME: An appointment's scheduled time

- MTYPE: The internal value for an appointment program exam type
- MX: (1) A sex limitation for a Medical Program Tests file entry
(2) The piece of MT0 where the appropriate exam type restrictions are stored
(3) The zero node of an ascendant to a Medical Program Tests file entry

In addition to standard FileMan variables, routines T2MRS3 and T2MRS3A use the following variables:

- MA: A pointer to an ascendant of a Medical Program Tests file entry
- MCOD: A program's code
- ME: A Medical Program file entry number
- MN: A Medical Program Tests file entry
- MST: The zero node for a program Test subfile entry
- MST1: A sex limitation for a Medical Program Tests file entry
- MT: A Medical Program Tests file entry number and the corresponding entry number in a program Test subfile
- MTAB: (1) The number of indents to be made before printing a Medical Program Tests entry; this is the same as the number of ascendant entries
(2) The column in which to print

Routine T2MRS2 uses the following variables in addition to standard FileMan variables:

- MA: A pointer to an ascendant of a Medical Program Tests file entry
- MT: A Medical Program Tests file entry number
- MT0: The zero node for a Medical Program Tests file entry
- MTAB: (1) The number of indents to be made before printing a Medical Program Tests entry; this is the same as the number of ascendant entries
(2) The column in which to print
- MX: A Medical Program Tests file entry

In addition to standard FileMan variables, routines T2MRA6 and T2MRA7 use the following variables:

- MCL: A Clinic file entry number
- MDAT1: The starting date for the report, in FileMan format
- MDAT2: The ending date for the report, in FileMan format
- MTIM1: The first appointment Time Scheduled to be selected for the report
- MTIM2: The last appointment Time Scheduled to be selected for the report

5.8.5 Remarks

The OVER EXP sort template called under the Employee Medical Exam Protocol option uses computed field Select for Medical Protocol. This field, located in the Page Number subfile of the Sample Survey file, calls routine T2MS1D to identify whether the sample should be included on the report. The EMP REQ EXAMS sort template, called under the Display/Print Personnel Requiring Exams option, uses the Count To Be Scheduled computed field from the Employee file to identify and select only employees that have To Be Scheduled entries.

5.9 Create/Edit Appointment Notice Text Option

5.9.1 Purpose

This option allows users to modify the standard appointment notice into a format preferred by the local clinics and agencies.

5.9.2 Overview

Routine T2MRN4 performs this option. The routine structure is illustrated in Figure 5-14. The routine modifies the existing entry by calling routine T2GED.

5.9.3 Globals Referenced

The following global is read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Appointment Notices	---	1145	↑MED(1145,	MES	Update

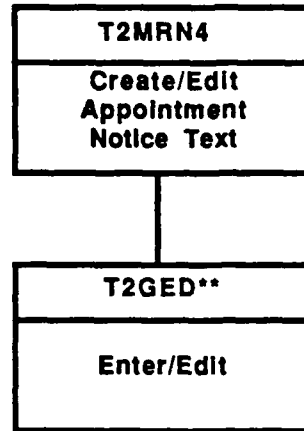


FIGURE 5-14
CREATE/EDIT APPOINTMENT NOTICE TEXT
OPTION ROUTINE STRUCTURE

5.9.4 Variables

All the variables used in routine T2MRN4 are standard FileMan and utility variables.

5.9.5 Remarks

See Section 9.11 for a discussion of the special computed fields used by this option.

5.10 Appointment Notices Print Option

5.10.1 Purpose

This option allows the user to print appointment notices for new appointments or those appointments with a changed date, time, or set of programs.

5.10.2 Overview

This option is performed by routine T2MRN2. Figure 5-15 illustrates the routine structure. This routine prints the notices using routine DIWF, sort template NOTICE, and the Appointment Notices file entry.

5.10.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Appointment Notices	---	1145	↑MED(1145,	MES	Read
Preexam Instructions	---	1139	↑MED(1139,	MES	Read
Medical Program Tests	---	1129	↑MED(1129,	MES	Read
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

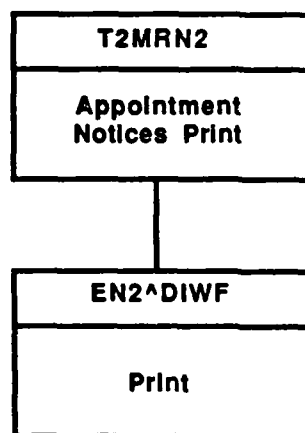


**FIGURE 5-15
APPOINTMENT NOTICES PRINT OPTION
ROUTINE STRUCTURE**

5.10.4 Variables

The only variable used by routine T2MRN2 that is not a standard FileMan variable is MCOD, which is the Appointment Notices file entry.

5.10.5 Remarks

See Section 9.11 for a discussion of the special computed fields used by this option.

5.11 Reprint Appointment Notice

5.11.1 Purpose

This option allows users to reprint notices that have already been printed, in case they were lost or the printer malfunctioned during the original print run.

5.11.2 Overview

Routine T2MRN3 performs this option. The routine structure is presented in Figure 5-16. This routine prints notices using routine DIWF, sort template REPRINT, and the Appointment Notices file entry.

5.11.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical	---	1134	↑MED(1134,	MES	Read
Appointment					
Appointment	---	1145	↑MED(1145,	MES	Read
Notices					
Preexam	---	1139	↑MED(1139,	MES	Read
Instructions					
Medical Program	---	1129	↑MED(1129,	MES	Read
Tests					
Reason for	---	1128	↑MED(1128,	MES	Read
Medical Visit/ Exam					
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

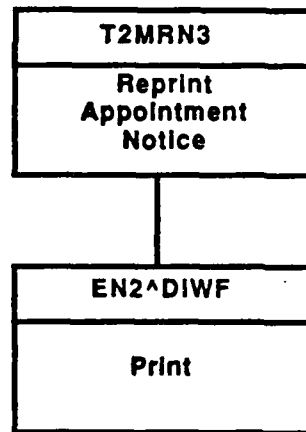


FIGURE 5-16
REPRINT APPOINTMENT NOTICE
OPTION ROUTINE STRUCTURE

5.11.4 Variables

The only variable used by routine T2MRN3 that is not a standard FileMan variable is MCOD, which is the Appointment Notices file entry.

5.11.5 Remarks

See Section 9.11 for a discussion of the special computed fields used by this option.

6.0 UPDATE APPOINTMENT HISTORY

6.1 Introduction

Options under this process are used to record and retrieve data in the Medical Appointment History file on missed, cancelled, and attended appointments and data in the Medical Qualifications file. Figure 6-1 illustrates the options that affect appointment history and qualifications and the data sets that are updated. (The two audit options are discussed in Section 8.0.) The Clinic file is also an input to all these options since it is used to specify which clinic is being processed. Each of the options that files data into appointment history from the Medical Appointment file will also delete the moved appointment from the Medical Appointment file and, for automated scheduling clinics, the Medical Appointment Scheduling file. These options also allow the user to edit existing appointment history entries by modifying existing data or adding programs.

Appointment history entries cannot be deleted, programs cannot be deleted from appointment history entries, and an appointment history entry cannot be changed from one disposition type to another.

6.2 Cancel Individual Medical Appointments Options

6.2.1 Purpose

This option allows users to create and edit individual Medical Appointment History entries for cancelled appointments and, if desired, to reschedule them or file them in the employee's To Be Scheduled subfile.

6.2.2 Overview

Routine T2MAC performs this option. The routine structure is illustrated in Figure 6-2. First, this routine uses routine DIC to select a clinic and routine T2PL to select an employee. After the routine displays additional employee data, routine DIC is called to display the employee's existing future or current appointments and have the user select one. If an appointment is selected, routine DIC is used to ask if an appointment history entry for the appointment date and time is to be added. If so, the entry is locked, routine T2GED is called to prompt for data on the cancellation, and routines DIC and DIE are used to move the appointment programs into the new appointment history entry. Next, the user specifies what is to be done with the existing appointment. If it is not rescheduled, the appointment entry is deleted from the appointment files, starting at line DL using routine DIK. If the appointment is to be scheduled at an unspecified date and time, line TBS moves the program data into the employee's To Be Scheduled subfile using the To Be Scheduled Filing utility and then deletes the old entry, as discussed above, at line

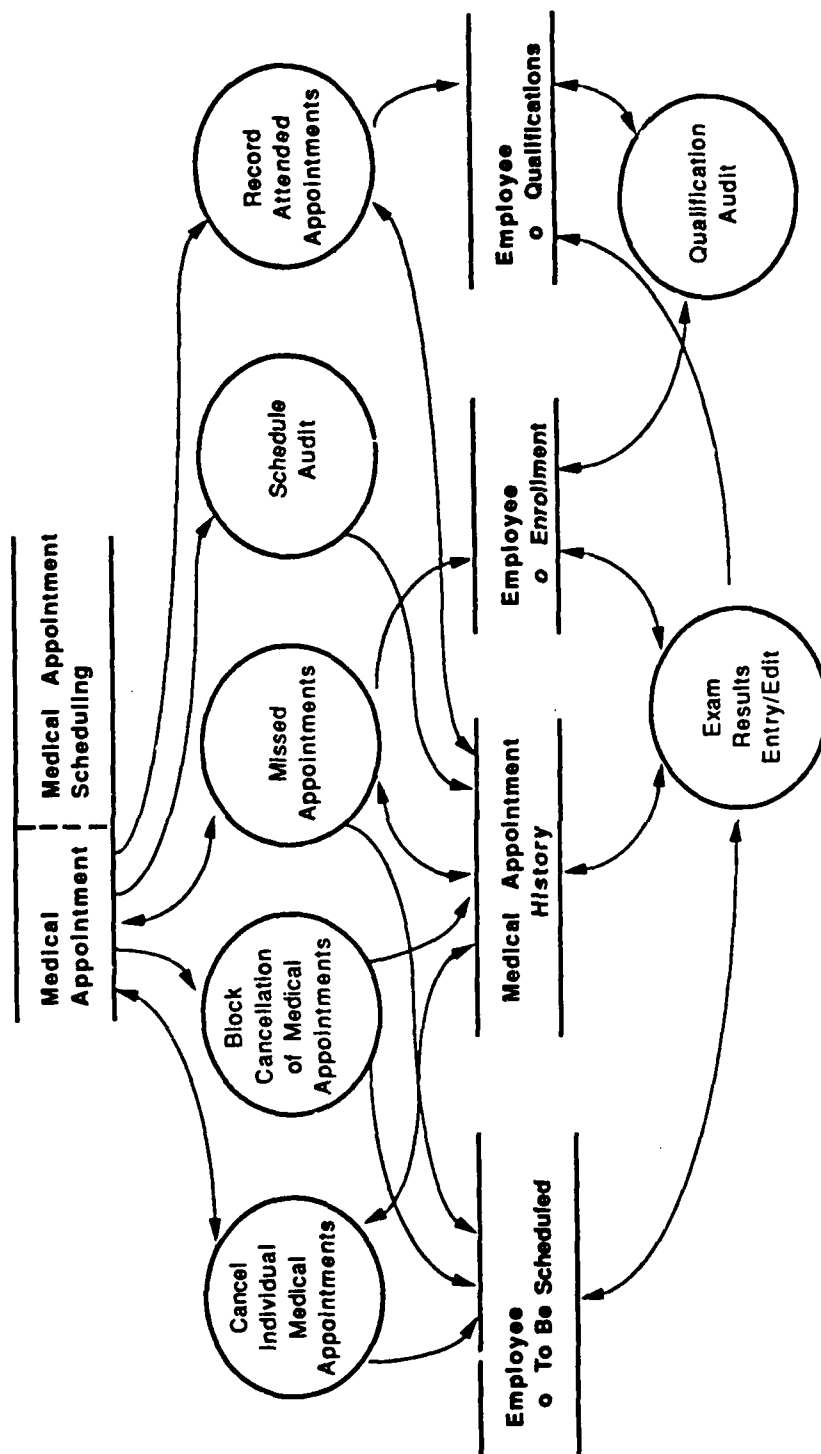
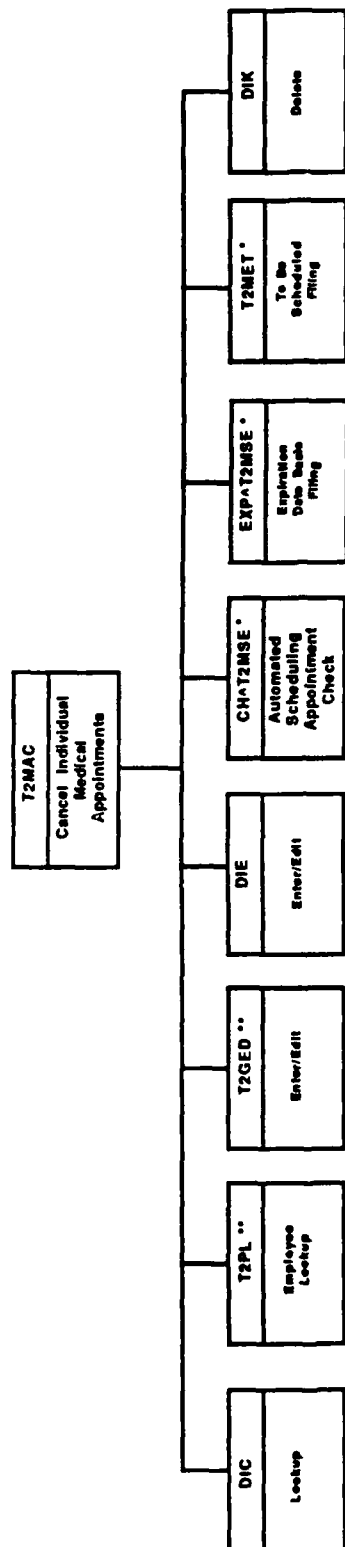


FIGURE 6-1
APPOINTMENT HISTORY



6-3

FIGURE 6-2
CANCEL INDIVIDUAL MEDICAL APPOINTMENTS
OPTION ROUTINE STRUCTURE

DL. If a rescheduled date and time is to be specified, routine T2GED is used to get the new date and time and, for automated scheduling clinics, the Automated Scheduling Appointment Check utility is called to verify the appointment and file the data as needed. If the appointment is for a manual scheduling clinic or is verified under an automated scheduling system, the Expiration Date Basis Filing utility is called. If the appointment is not verified, the appointment programs are moved to the employee's To Be Scheduled subfile and the appointment is deleted.

When no appointment is selected, the routine goes to line ADD where routine DIC allows the user to add or select a cancelled appointment history entry for the past year. If an entry is added or selected, the entry is locked and the cancellation data can be edited using routine T2GED. Next, Program subfile data is added or looked up using routine DIC, defaults are set up based on the employee's corresponding Enrollment subfile data, the valid program frequencies are established, and the Program subfile data is edited using routine T2GED. The routine repeats the Program subfile lookup and processing until no subfile entry is selected.

6.2.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical	---	1134	↑MED(1134,	MES	Update
Appointment	---	1144	↑MED(1144,	MES	Update
Medical	---	1126	↑MED(1126,	MES	Update
Appointment	---	1128	↑MED(1128,	MES	Read
History	---				
Reason for	---				
Medical Visit/	---				
Exam	---	1004	↑EMPLOY(	ADMIN	Read
Employee	---	1074	↑AGENCY(0,	ADMIN	Read
Agency Unit	---	1001	↑DIZ(1001,	ADMIN	Read
Occupation	---				

6.2.4 Variables

The following variables are used in addition to standard FileMan and utility variables:

- MA: A Medical Appointment History file entry number
- MAF: A zero indicates that the appointment is verified; a one indicates that it is not
- MAG: A pointer to an employee's agency
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDO: The original appointment Date Scheduled, in FileMan format
- MDS: The edited appointment Date Scheduled, in FileMan format
- MDT: The last day of the Next Month To Be Scheduled
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment subfile, the employee To Be Scheduled subfile, the appointment Medical Program Scheduled subfile, and the appointment history Program subfile
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment
(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero
- ML: The internal value for the length of the clinic's time slots or zero if the length is a day
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MP0: The zero node of the selected Medical Program file entry
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program
- MS: A Medical Appointment file entry number

- MSC: The internal value of a clinic Which Scheduling Used field
- MSCH: (1) The zero node of a Medical Appointment History entry
(2) The zero node of an appointment history Program subfile entry
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format
- MTB: The edited appointment Time Scheduled
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MTO: The original appointment Time Scheduled
- MTS: The inverse of a Time Slot Start Time subfile entry number in the Medical Appointment Scheduled file
- MX: Indicates what is to be done with an appointment; "R" to reschedule; "Y" to file in To Be Scheduled and delete; "N" to delete

6.2.5 Remarks

The Automated Appointment Scheduling Check utility is reviewed in Section 9.4. The To Be Scheduled Filing Utility is covered in Section 9.9. The Expiration Data Basis Filing utility is discussed in Section 9.5. See Section 9.6 for a discussion of some standard triggers and edits on appointment data. In addition to the standard edits, this routine will not allow an appointment to be rescheduled at the same date and time as it was originally scheduled. This does allow a different starting time on the same day or a different day.

6.3 Block Cancellation of Medical Appointments Option

6.3.1 Purpose

This option enables users to cancel all appointments that start during a specified time period. At the user's discretion, the option will file the program data for the cancelled appointments into the To Be Scheduled subfile. The option will also flag the specified time slots as administrative time if directed to do so.

6.3.2 Overview

This option is performed by routine T2MAB. Figure 6-3 illustrates the routine structure. First, routine DIC is used to look up a clinic.

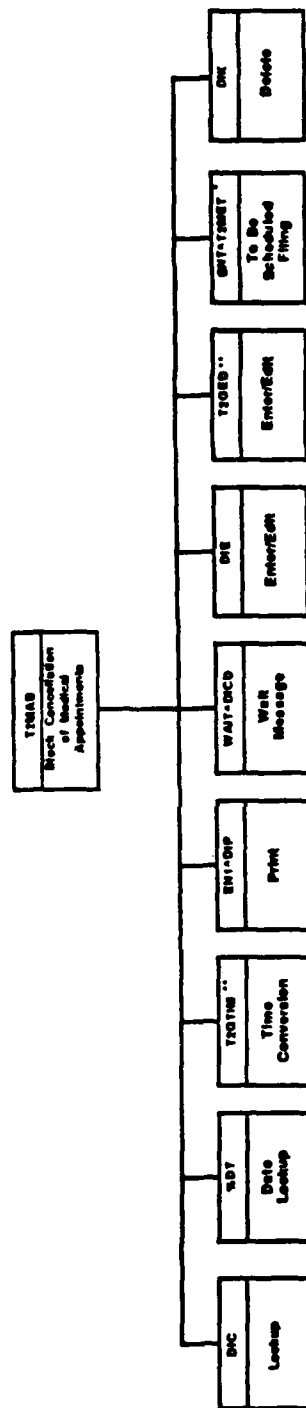


FIGURE 6-3
BLOCK CANCELLATION OF MEDICAL APPOINTMENTS
OPTION ROUTINE STRUCTURE

Then, the clinic entries in the two appointment files and the appointment history file are locked. Next, the date to be cancelled is selected using routine %DT, the specified start and stop times are verified using routine T2GTIM, and the appointments to be cancelled are listed using routine DIP and print template APPT LIST-DISP. If the user wants to proceed, the routine asks whether the appointments are to be rescheduled and, for automated scheduling clinics, whether the time slots covered are to be made unavailable. Next, routine DICD is called to notify the user that the system is busy processing data. Then the routine loops through the appointments and uses routines DIC and T2GED to set up the appointment history entry, with repeated calls to routine DIC and DIE that move the program data into the appointment history entry. If the user wants to reschedule, line TBS will use the To Be Scheduled Filing utility to move the program data into the To Be Scheduled subfile. Next, the appointment is deleted from the appointment files using routine DIK. Once all the appointments have been processed, the routine will use calls to DIE to make the time slots unavailable, if appropriate.

6.3.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Medical Appointment History	---	1126	↑MED(1126,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

6.3.4 Variables

In addition to standard FileMan and utility variables, routine T2MAB uses the following variables:

- MA: A Medical Appointment History file entry number
- MAG: A pointer to an employee's agency
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDS: The date, in FileMan format, of appointments to be cancelled and the corresponding entry number in the Date Scheduled subfile of the Medical Appointment Scheduling file
- MDT: The last day of the Next Month To Be Scheduled
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment subfile, the employee To Be Scheduled subfile, the appointment Medical Program Scheduled subfile, and the appointment history Program subfile.
- MS: A Medical Appointment file entry number
- MSC: The internal value of a clinic Which Scheduling Used field
- MSCH: (1) The zero node of a Medical Appointment History entry
(2) The zero node of an appointment history Program subfile entry
- MTB: The earliest starting time for appointments being cancelled
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MTE: The latest starting time for appointments being cancelled
- MTS: (1) A Time Slot Start Time covered by the cancellation time span and the corresponding entry number in the Time Slot Start Time subfile of the Medical Appointment Scheduling file
(2) The inverse of a Time Slot Start Time entry number
- MU: A value of "Y" indicates that the covered time slots are to made unavailable
- MX: A value of "Y" indicates that programs for cancelled appointments are to be filed in the To Be Scheduled subfile

6.3.5 Remarks

The To Be Scheduled Filing utility is discussed in Section 9.9.

6.4 Missed Appointments Option

6.4.1 Purpose

This option allows users to create and edit Medical Appointment History entries for missed appointments and, if desired, to reschedule them or file them in the employee's To Be Scheduled subfile.

6.4.2 Overview

Routine T2MAM performs this option. The routine structure is illustrated in Figure 6-4. First, this routine uses routine DIC to select a clinic and routine T2PL to select an employee. After the routine displays additional employee data, routine DIC is called to display the employee's existing past or current appointments and have the user select one. If an appointment is selected, routine DIC is used to ask whether an appointment history entry for the appointment date and time is to be added. If so, the entry is locked, routine T2GED is called to prompt for data on the missed appointment, and routines DIC and DIE are used to move the appointment programs into the new appointment history entry. Next, the user specifies what is to be done with the existing appointment. If it is not rescheduled, the appointment history is deleted from the appointment files starting at line DL using routine DIK. If the appointment is to be scheduled at an unspecified date and time, line TBS moves the program data into the employee's To Be Scheduled subfile using the To Be Scheduled Filing utility and then deletes the old entry, as discussed above, at line DL. If a reschedule date and time is to be specified, routine T2GED is used to get the new date and time and, for automated scheduling clinics, the Automated Scheduling Appointment Check utility is called to verify the appointment and file the data as needed. If the appointment is for a manual scheduling clinic or is verified under an automated scheduling system, the Expiration Date Basis Filing utility is called. If the appointment is not verified, the appointment programs are moved to the employee's To Be Scheduled subfile and the appointment is deleted.

Once the appointment has been processed, the routine counts the employee's consecutive missed appointments. If they exceed the clinic limit, the employee's enrollments are all removed, except for an asbestos program enrollment, using the Enrollment Removal utility.

When no appointment is selected, the routine goes to line ADD where routine DIC allows the user to add or select a missed appointment history entry for the past year. If an entry is added or selected, the entry is

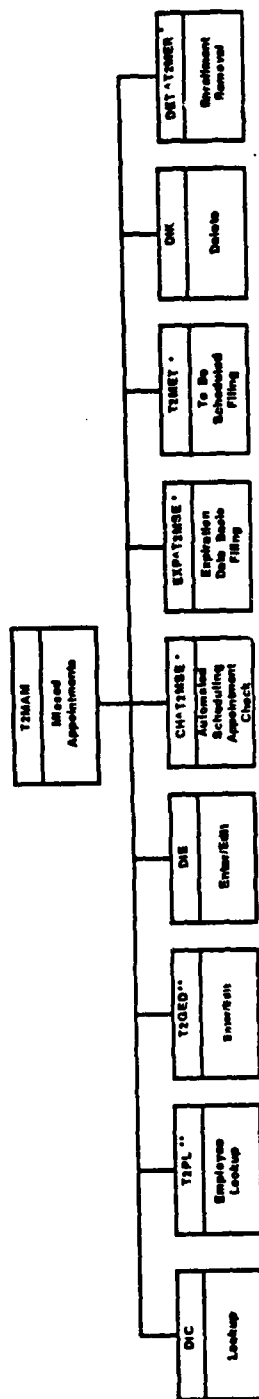


FIGURE 6-4
MISSED APPOINTMENTS OPTION
ROUTINE STRUCTURE

locked and the missed appointment data can be edited using routine T2GED. Next, Program subfile data is added or looked up using routine DIC, defaults are set up based on the employee's corresponding Enrollment subfile data, the valid program frequencies are established, and the Program subfile data is edited using routine T2GED. The routine repeats the Program subfile lookup and processing until no subfile entry is selected.

6.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Medical Appointment History	---	1126	↑MED(1126,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

6.4.4 Variables

Routine T2MAM uses the following variables in addition to standard FileMan and utility variables:

- MA: A Medical Appointment History file entry number
- MAF: A zero indicates that the appointment is verified; a one indicates that it is not

- MAG: A pointer to an employee's agency
- MASB: A pointer to the asbestos program
- MC: A count of an employee's consecutive missed appointments
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDO: The original appointment Date Scheduled, in FileMan format
- MDS: The edited appointment Date Scheduled, in FileMan format
- MDT: The last day of the Next Month To Be Scheduled
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment subfile, the employee To Be Scheduled subfile, the appointment Medical Program Scheduled subfile, and the appointment history Program subfile
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment
(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero
- MISC: The number of consecutive missed appointments at a clinic for which an employee will be removed from program enrollments
- ML: The internal value for the length of the clinic's time slots or zero if the length is a day
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MPO: The zero node of the selected Medical Program file entry
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program
- MS: A Medical Appointment file entry number
- MSC: The internal value of a clinic Which Scheduling Used field

- MSCH: (1) The zero node of a Medical Appointment History entry
(2) The zero node of an appointment history Program subfile entry
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format
- MTB: The edited appointment Time Scheduled
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MT0: The original appointment Time Scheduled
- MTS: The inverse of a Time Slot Start Time subfile entry number in the Medical Appointment Scheduling file
- MX: Indicates what is to be done with an appointment; "R" to reschedule; "Y" to file in To Be Scheduled file and delete; "N" to delete

6.4.5 Remarks

The Automated Appointment Scheduling Check utility is reviewed in Section 9.4. The To Be Scheduled Filing utility is covered in Section 9.9. The Expiration Data Basis Filing utility is discussed in Section 9.5. See Section 9.6 for a discussion of some standard triggers and edits on appointment data. In addition to the standard edits, this routine will not allow an appointment to be rescheduled at the same date and time as it was originally scheduled. This does allow a different starting time on the same day or a different day.

6.5 Record Attended Appointments Option

6.5.1 Purpose

This option allows users to create and edit Medical Appointment History entries for attended appointments. The option will file a qualification status of pending for any programs entered in the appointment history.

6.5.2 Overview

Routine T2MAA performs this option. The routine structure is illustrated in Figure 6-5. First, this routine uses routine DIC to select a clinic and routine T2PL to select an employee. After the routine displays additional employee data, routine DIC is called to display the employee's existing past or current appointments and have the user select

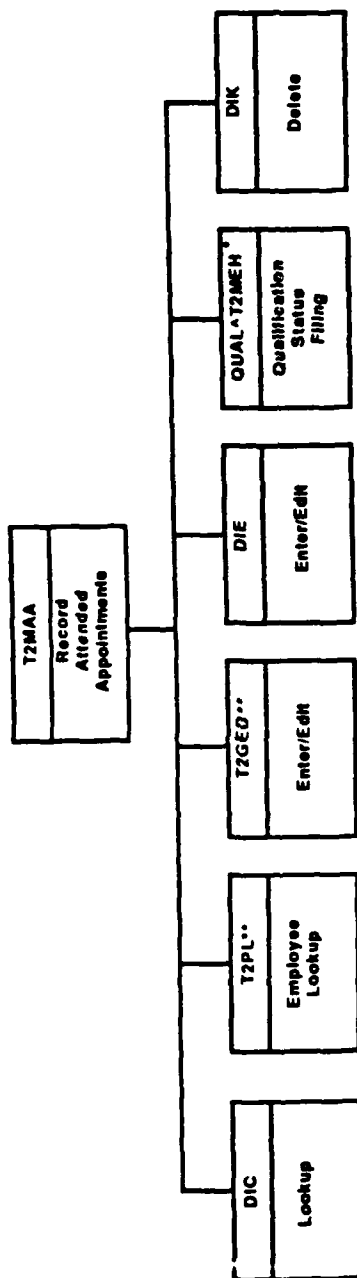


FIGURE 6-5
RECORD ATTENDED APPOINTMENTS OPTION
ROUTINE STRUCTURE

one. If an appointment is selected, routine DIC is used to ask if an appointment history entry for the appointment date and time is to be added. If so, the entry is locked, routine T2GED is called to prompt for data on the attended appointment, routine DIE is called to file the Clinic Time Out from the appointment's End of Appointment as available, and routines DIC and DIE are used to move the appointment programs into the new appointment history entry. For each program, the Qualification Status Filing utility is called to file a pending status as of the appointment date. Next, the appointment entry is deleted from the appointment files starting at line DL using routine DIK.

When no appointment is selected, the routine goes to line ADD where routine DIC allows the user to add or select an attended appointment history entry for the past year. If an entry is added or selected, the entry is locked and the attendance data can be edited using routine T2GED. Next, Program subfile data is added or looked up using routine DIC, defaults are set up based on the employee's corresponding Enrollment subfile data, the valid program frequencies are established, and the Program subfile data is edited using routine T2GED. If a program is added to the appointment history, a pending status is filed as of the appointment date, using the Qualification Status Filing utility. The routine repeats the Program subfile lookup and processing until no subfile entry is selected.

6.5.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	Medical Qualifica- tion	1004.08	↑EMPLOY(#,12,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Medical Appointment History	---	1126	↑MED(1126,	MES	Update

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

6.5.4 Variables

The following variables are used by routine T2MAA in addition to standard FileMan and utility variables:

- MA: A Medical Appointment History file entry number
- MAG: A pointer to an employee's agency
- MCF: The internal value of a clinic Cost Accounting Flag field
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling entry number
- MDT: The last day of the Next Month To Be Scheduled
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment subfile, the employee To Be Scheduled subfile, the appointment Medical Program Scheduled subfile, and the appointment history Program subfile
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment
(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MP0: The zero node of the selected Medical Program file entry
- MQ: The internal value for a qualification to be filed in the Medical Qualification file

- MQD: An appointment history date in FileMan format for use as the effective date of an employee's qualification status
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program
- MS: A Medical Appointment file entry number
- MSC: The internal value of a clinic Which Scheduling Used field
- MSCH: (1) The zero node of a Medical Appointment History entry
(2) The zero node of an appointment history Program subfile entry
- MST: (1) The zero node of the selected Employee file entry
(2) An employee's shift in internal format
- MTIO: An appointment's ending time
- MTS: The inverse of a Time Slot Start Time subfile entry number in the Medical Appointment Scheduling file

6.5.5 Remarks

The Qualification Status Filing utility is reviewed in Section 9.12.

The T2GED edit of the Clinic Time In field requires an entry if cost accounting data is being tracked. The End of Appointment is stuffed into the appointment history to serve as a default Clinic Time Out, provided it is after the entered Clinic Time In.

6.6 Exam Results Entry/Edit Option

6.6.1 Purpose

This option enables users to edit attended appointment records and to enter program exam results. In some cases, the option files employee Medical Qualifications subfile entries on programs for which results are reported and modifies employee Enrollment subfile entries. If a result of "incomplete" is filed, the option will also file a To Be Scheduled subfile entry for the employee.

6.6.2 Overview

This option is performed by routine T2MAR. Figure 6-6 illustrates the routine structure. First, the routine uses routine DIC to select a clinic and routine T2PL to select an employee. After the routine displays additional employee data, it calls routine DIC using the "C" cross

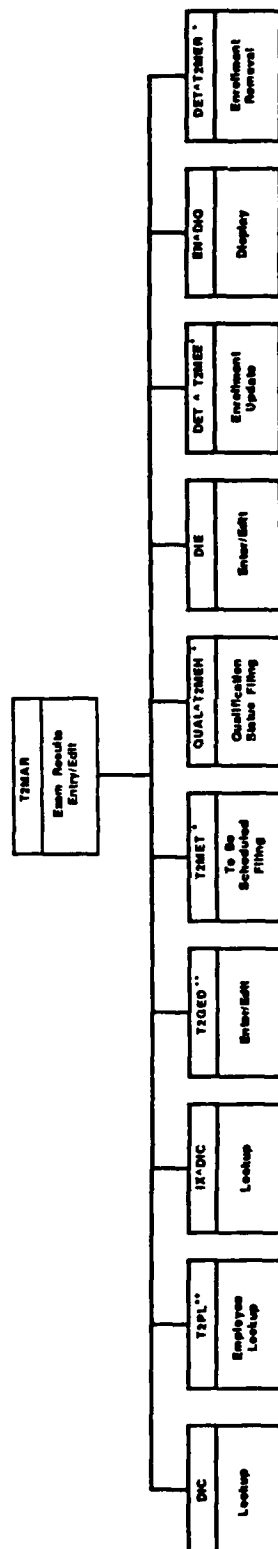


FIGURE 6-6
EXAM RESULTS ENTRY/EDIT OPTION
ROUTINE STRUCTURE

reference to show the employee's appointment history entries for the past year and have the user select one. Then the selected appointment history entry is locked and routine T2GED is called to edit the attendance data and enter or edit the Clinic Time Out.

Next, the user is asked to select an existing appointment history Program subfile entry using routine DIC. For each program, defaults are set up based on the employee's corresponding Enrollment subfile data, the valid program frequencies are established, and the Program subfile data is edited using routine T2GED.

When an appointment history program's Exam Status is changed, there is additional processing before looping back to ask for the next program. If the old status was "incomplete", the To Be Scheduled Filing utility is used to allow deletion of any existing employee To Be Scheduled subfile entry. If the new status is "incomplete", the To Be Scheduled Filing utility is used to file the program into the employee's To Be Scheduled subfile for a following exam and the status is considered to be "pending". Next, the Qualification Status Filing utility is called to file the new status as of the appointment date.

The remainder of the program processing is only concerned with changes in status that reflect initial filing of a final status (i.e., a change to "qualified" or "not qualified" from "pending" or "incomplete") or a reversal of a final status (i.e., a change from "qualified" or "not qualified" to "pending" or "incomplete". If there is a Date Exposure Reported in the appointment history, it is processed using routine DIE. In some circumstances, the user will be given the option of doing a periodic enrollment for the employee using the Enrollment Update utility. In some situations, routine DIE is called to change the enrollment Date Next Exam. In addition, or instead, the user is sometimes shown an existing enrollment using routine DIQ and is given the opportunity to editing it using routine T2GED. A user edit that deletes the Date Next Exam will result in enrollment removal by the Enrollment Removal utility.

6.6.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment History	---	1126	↑MED(1126,	MES	Update
Employee	Medical Qualification	1004.08	↑EMPLOY(#,12,	MES	Update
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

6.6.4 Variables

Routine T2MAR uses the following variables in addition to standard FileMan and utility variables:

- MA: A Medical Appointment History file entry number
- MBD: An employee's birthdate
- MCF: The internal value of a clinic Cost Accounting Flag field
- MCL: A pointer to a Clinic file entry
- MDN: The Date Next Exam for a program in FileMan format
- MDT: The appointment date or Date Next Exam in FileMan format used as a basis for determining the new enrollment Date Next Exam
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in the employee Enrollment file and the appointment history Program subfile
- MF: (1) An array using as subscripts the valid reexamination frequencies for the selected program or from the employee's current enrollment

(2) MF ("F") is one if the employee is enrolled in the selected program for periodic exams; otherwise, it is zero

- MFR: An appointment history program or enrollment reexamination frequency used to determine the new enrollment Date Next Exam
- MME: Part of a DR variable string used by the Enrollment Removal utility
- MOCC: A pointer to an employee's occupation code
- MODN: An entry to be filed as the enrollment Old Date Next
- MP: An Employee file entry number
- MPO: The zero node of the selected Medical Program file entry
- MQ: (1) The internal value for the new appointment history program Exam Status and the employee qualification status
(2) For the section of the routine dealing with initial filing or reversal of a final status, the value is "P" if the new status is not a final status; the value is "Q" if the new status is a final status
- MQD: An appointment history Date of Exam/Appointment in FileMan format for use as an effective date of an employee's qualification status
- MQO: (1) The internal value for the old appointment history program Exam Status
(2) For the section of the routine dealing with initial filing or reversal of a final status, the value is "P" if the old status is not a final status; the value is "Q" if the old status is a final status
- MRE: A variable set up and used by the Enrollment Update utility
- MRV: The reason for exam from the employee Enrollment subfile entry for the selected program
- MSCH: The zero node data for an appointment history Program subfile entry
- MSD: An employee's next birthday
- MSDR: The DR variable string to be used by the Enrollment Update utility

- MST: (1) The zero node of an Employee file entry
(2) An employee's shift in internal format
(3) The zero node of an employee Enrollment subfile entry
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MTI: An appointment history Clinic Time In
- MYO: The zero node of an employee Enrollment subfile entry

6.6.5 Remarks

The To Be Scheduled Filing utility is discussed in Section 9.9. The Qualification Status Filing utility is reviewed in Section 9.12. The Enrollment Update utility is presented in Section 9.2. The Enrollment Removal utility is discussed in Section 9.3.

When a final exam status is being reversed, the following will happen:

- If there is an appointment history program Date Exposure Reported and there isn't one for the corresponding Enrollment subfile entry, the date is filed in the enrollment
- If there is a corresponding periodic enrollment, the exam is periodic and not a removal, and the exam date is the same as the enrollment Date Last Periodic Exam, the enrollment Date Next Exam is reset to the Old Exam Date and the Old Exam Date is changed to the exam date

When a change in status reflects initial filing as final, processing follows these rules:

- If there is a corresponding periodic enrollment, and the exam is periodic and not a removal, and the exam date is the same as the enrollment Date Last Periodic Exam, the enrollment Date Next Exam is changed to the later of the Date Next Exam and the exam date as adjusted by the enrollment frequency.
- If there is a corresponding enrollment, the user will be given the opportunity to change the Date Next Exam. If the enrollment is one-time, the user can delete the Date Next Exam to force a removal.
- If there is no corresponding enrollment or there is a one-time enrollment and the exam is periodic and not a removal, the user will be given the chance to do an enrollment with a default Date Next Exam based on the exam date adjusted by the exam frequency.

6.7 Appointment History Output Options

6.7.1 Purpose

The following eight options under this process produce details and summaries of appointment history and qualification data for use by management:

- Full Qualification Status Report
- Qualification Status Report
- Appointment History Details
- Appointment History Summary
- Performance Summary
- Missed Appointments Report
- Cancellation Report
- Cost Accounting Report

6.7.2 Overview

The Full Qualification Status Report option is a print option which uses the QUAL STATUS AUTO HEAD and QUAL STATUS-BOTH print templates and the QUAL STATUS sort template to generate a report on both medical and training qualifications.

Routine T2MRQ1 performs the Qualification Status Report option. The routine structure is shown in Figure 6-7. The routine first selects an agency using routine DIC and asks which report is desired. If the report is to include programs, the user is allowed to specify all programs or to select a program using routine DIC. The different report options are produced at different lines, but each calls routine DIP to generate the report. The report options and the templates used are listed in Table 6-1.

The Appointment History Details option is produced by routine T2MRA1. Figure 6-8 presents the routine structure. The routine lists the report options and has the user select one. If the selected option is for an employee report, routine T2PL is called to select an employee; otherwise, routine DIC is used to select a clinic. In any case, routine DIP is called to produce the report. The report options and the templates used are listed in Table 6-1.

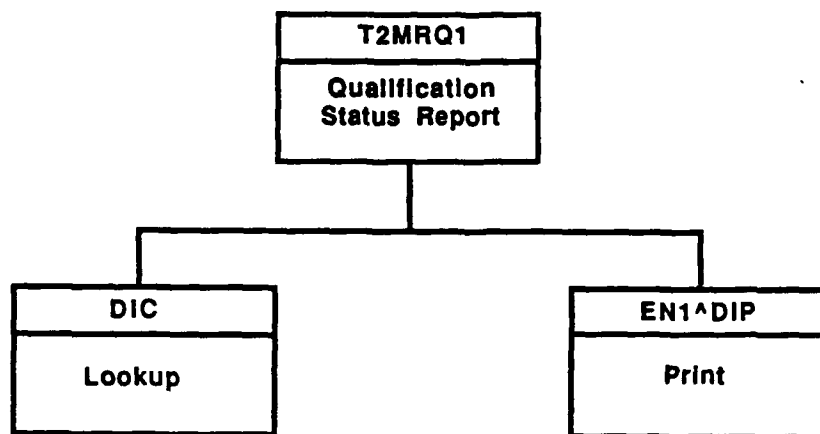


FIGURE 6-7
QUALIFICATION STATUS REPORT OPTION
ROUTINE STRUCTURE

TABLE 6-1
PRINT AND SORT TEMPLATES FOR APPOINTMENT
HISTORY OUTPUT OPTIONS

OPTION	PRINT TEMPLATE	SORT TEMPLATE
Full Qualification Status Report	QUAL STATUS AUTO HEAD QUAL STATUS-BOTH	QUAL STATUS
Qualification Status Report: Training Only	QUAL STATUS HEAD QUAL STATUS-TRAIN	QUAL STATUS
Medical Only-All Programs	QUAL STATUS HEAD QUAL STATUS-MED	QUAL STATUS
Medical Only-Selected Program	QUAL STATUS HEAD-MED QUAL STATUS-MED	QUAL STATUS
Both-All Programs	QUAL STATUS HEAD QUAL STATUS-BOTH	QUAL STATUS
Both-Selected Program	QUAL STATUS HEAD-MED QUAL STATUS-BOTH	QUAL STATUS
Appointment History Details: Employee	APPT HIST HEAD-EMP APPT HISTORY	BY EMP/DATE
Shop	APPT HIST HEAD APPT HISTORY	BY SHOP/EMP/ DATE
Occupation	APPT HIST HEAD APPT HISTORY	BY OCC/SHOP/ EMP/DATE

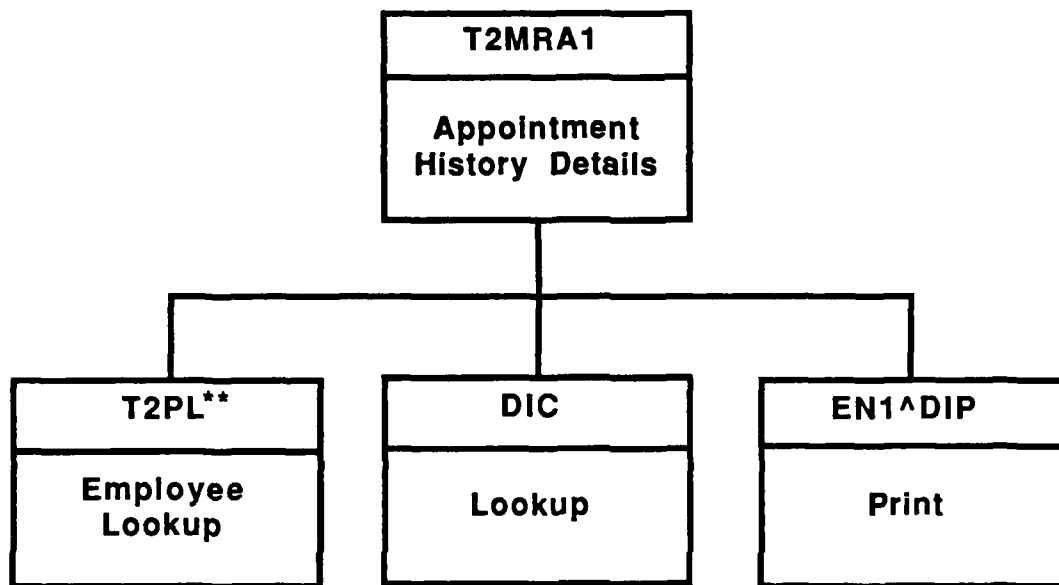


FIGURE 6-8
APPOINTMENT HISTORY DETAILS OPTION
ROUTINE STRUCTURE

Routine T2MRA2 generates the Appointment History Summary Option. The routine structure is illustrated in Figure 6-9. Routine %DT is used to verify user entered dates and routine DIC is called to select an agency. After asking for a shop range, T2MRA2 calls routine %ZIS to select a device and then loops through the Appointment History file and accumulates total information in a scratch file by shop. The report is generated by processing the scratch file.

The Performance Summary option is performed by routine T2MRA3. Figure 6-10 illustrates the routine structure. Routine DIC is called to select a clinic and then to select an agency. Routine %DT is used to verify user entered dates. After asking for a program name range, T2MRA3 calls routine %ZIS to select a device and then loops through the appointment history file and accumulates totals in an array by program. The report is produced by processing the array.

Routine T2MRA4 produces the Missed Appointments Report option. The routine structure is presented in Figure 6-11. The Cancellation Report option is generated by routine T2MRA5. Figure 6-12 illustrates the routine structure. Both T2MRA4 and T2MRA5 operate in the same manner. First, routine DIC is used to select an agency and then routine DIC is called again to select a shop unless all shops are to be processed. Next, routine %DT is used to verify user entered dates. Then routine %ZIS is called to select a device and routine T2MRA5A is called to count appointments that are still on the schedule. Next, the appointment history file is processed and selected appointment and summary data is stored in a scratch file. Then the scratch file is processed, individual missed or cancelled appointments are listed, as appropriate, and the shop summary is printed, with an end-of-report summary of the shop data and overall data.

Routine T2MRA8 produces the Cost Accounting Report option. The routine structure is illustrated in Figure 6-13. Routine DIC is called to select an agency and then, unless all shops are to be processed, to select a shop. After routine %DT is used to verify user entered dates, routine %ZIS is used to select a device. Then, the appointment history file is processed and summary data is stored in a scratch file, as are the zero node entries that had data problems affecting the time and cost calculations. Finally, the scratch file is processed to generate the report with error lines and summary totals.

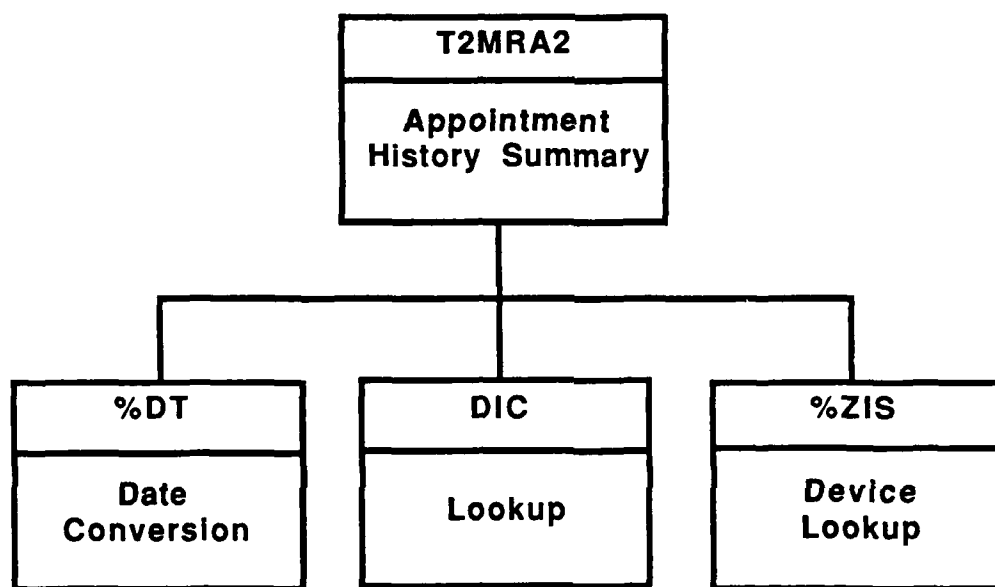


FIGURE 6-9
APPOINTMENT HISTORY SUMMARY OPTION
ROUTINE STRUCTURE

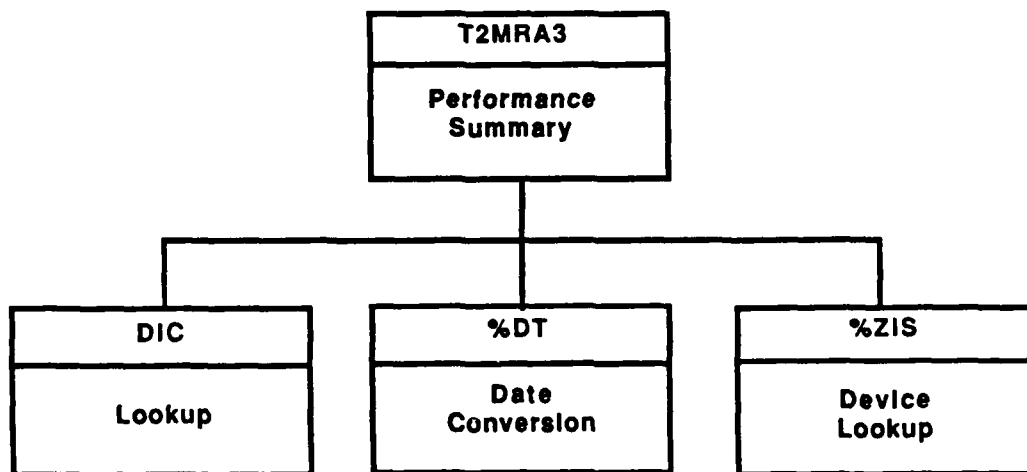


FIGURE 6-10
PERFORMANCE SUMMARY OPTION
ROUTINE STRUCTURE

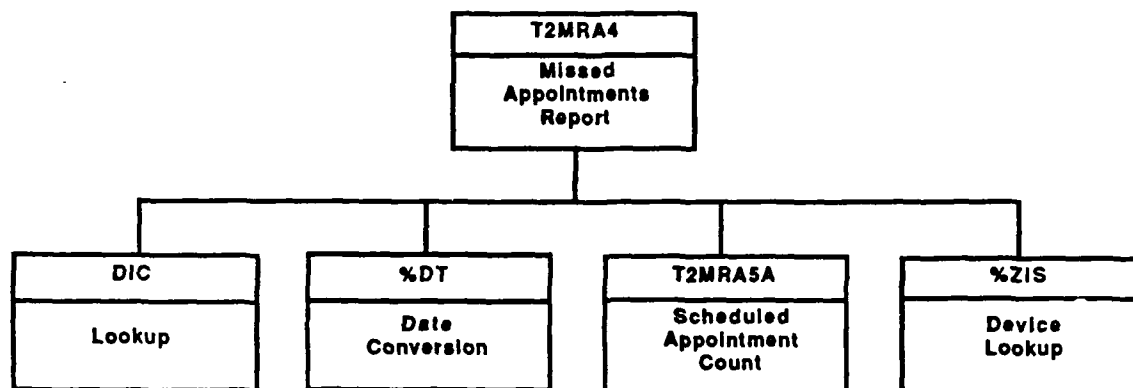


FIGURE 6-11
MISSED APPOINTMENTS REPORT OPTION
ROUTINE STRUCTURE

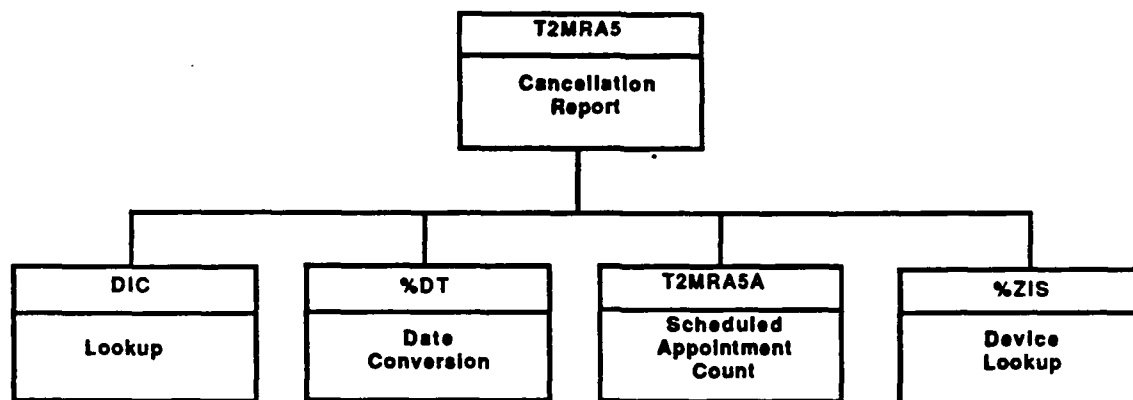


**FIGURE 6-12
CANCELLATION REPORT OPTION
ROUTINE STRUCTURE**

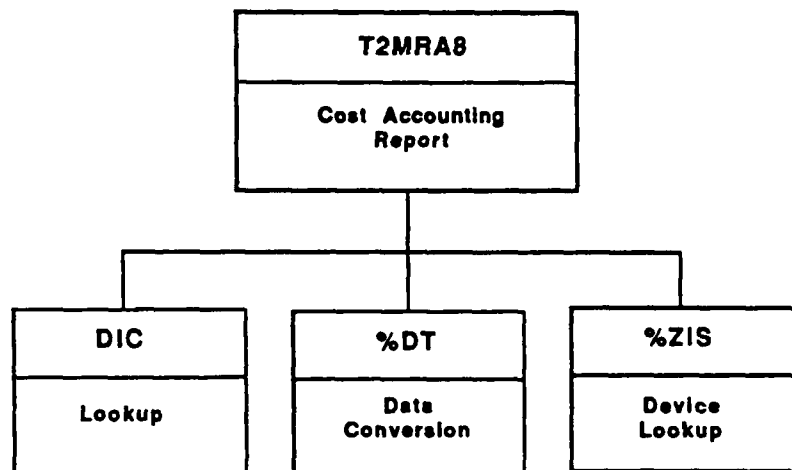


FIGURE 6-13
COST ACCOUNTING REPORT OPTION
ROUTINE STRUCTURE

6.7.3 Globals Referenced

The following globals are read:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Read
Medical Appointment History	---	1126	↑MED(1126,	MES	Read
Employee	Medical Qualifi- cation	1004.08	↑EMPLOY(#,12,	MES	Read
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read
Employee	Current Course	1004.11	↑EMPLOY(#,10,	S/HT	Read
Scratch	---	---	↑UTIL(\$J,		

6.7.4 Variables

Routine T2MRQ1 uses the following variables in addition to standard FileMan variables:

- MAG: A pointer to an agency
- MPROG: A pointer to a Medical Program file entry, or "A" for all programs
- MTYPE: An "M" indicates the report is for programs only; a "T" is for training only; a "B" is for both

The following variables are used by routine T2MRA1 in addition to standard FileMan variables:

- MCL: A Clinic file entry number
- MCLIN: A Clinic file entry

- MP: An Employee file entry number
- MR: A line tag corresponding to the report option to be done

In addition to standard FileMan variables, routine T2MRA2 use the following variables:

- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MAGP: An agency Code/Abbreviation
- MAPPT: The zero node for a Medical Appointment History file entry
- MATT: A shop count of attended appointments
- MATTI: An agency total of attended appointments
- MCAN: A shop count of cancelled appointments
- MCANCL: A shop count of clinic cancelled appointments
- MCANCT: An agency total of clinic cancelled appointments
- MCANS: A shop count of shop cancelled appointments
- MCANST: An agency total of shop cancelled appointments
- MCANT: An agency total of cancelled appointments
- MDAT: An appointment history Date of Exam/Appointment, in FileMan format
- MDET: A value of one indicates shop counts are being printed; a zero indicates agency totals are being printed
- MDISP: The internal value of an appointment history Disposition field
- MF1: The report starting date, in FileMan format
- MF2: The report starting shop value
- MISS: A shop count of missed appointments

- MISSJ: A shop count of justified missed appointments
- MISSJT: An agency total of justified missed appointments
- MISST: An agency total of missed appointments
- MISSU: A shop count of unjustified missed appointments
- MISSUT: An agency total of unjustified missed appointments
- MJUST: A non-zero value indicates that a missed appointment has a justification
- MP: An Employee file entry number
- MPATT: The percentage of appointments that were attended
- MPCAN: The percentage of appointments that were cancelled
- MPCANC: The percentage of cancelled appointments that were cancelled by the clinic
- MPCANS: The percentage of cancelled appointments that were cancelled by the shop
- MPMISS: The percentage of appointments that were missed
- MPMISSJ: The percentage of missed appointments that were justified
- MPMISSU: The percentage of missed appointments that were not justified
- MREAS: The internal value of an appointment history Reason for Cancellation field
- MS: A pointer to an employee's Agency Unit
- MSCH: The internal value of an appointment history Scheduled or Unscheduled field
- MSCHED: A shop count of appointment history entries
- MSCHEDT: An agency total of appointment history entries
- MSHOP: An agency unit Code/Abbreviation
- MT1: The report ending date in FileMan format

- MT2: The report ending shop value
- MTOT: A total of attended, cancelled, and missed appointments

Routine T2MRA3 uses the following variables in addition to standard and FileMan variables:

- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MAGP: An agency Code/Abbreviation
- MB: A pointer to a Medical Program file entry and the corresponding appointment history Program subfile entry number
- MC: A pointer to a Medical Program file entry and the corresponding appointment history Program subfile entry number
- MCL: A Clinic file entry number
- MDAT: An appointment history Date of Exam/Appointment, in FileMan format
- MDISP: The internal value of an appointment history Disposition field
- MF1: The report starting date in FileMan format
- MF2: The report starting program value
- MLIN: The line number being printed
- MNAM: A Medical Program file entry
- MNUM: An appointment history entry pointer to a clinic
- MP: An Employee file entry number
- MPAPP: A program count of exams
- MPAPPT: A total of exams
- MPATT: A program count of attended exams

- MPATTT: A total of attended exams
- MPCANC: A program count of clinic cancelled exams
- MPCANCT: A total of clinic cancelled exams
- MPCANS: A program count of shop cancelled exams
- MPCANST: A total of shop cancelled exams
- MPEMP: A program count of incomplete exams because the employee left
- MPEMPT: A total of incomplete exams because the employee left
- MPINC: A program count of incomplete exams because of inconclusive results
- MPINCT: A total of incomplete exams because of inconclusive results
- MPMACH: A program count of incomplete exams because of machine malfunction
- MPMACHT: A total of incomplete exams because of machine malfunction
- MPMISS: A program count of missed exams
- MPMISST: A total of missed exams
- MPNOR: A program count of incomplete exams because there are no results
- MPNORT: A total of incomplete exams because there are no results
- MPOPER: A program count of incomplete exams because of operator absence
- MPOPERT: A total of incomplete exams because of operator absence
- MPPEND: A program count of pending exams
- MPPENDT: A total of pending exams
- MPREAS: The internal value of the Reason Incomplete field for an appointment history Program subfile entry

- MPREC: A program count of incomplete exams because the shop recalled the employee
- MPRECT: A total count of incomplete exams because the shop recalled the employee
- MPROG: An array of totals for a program
- MREAS: The internal value of an appointment history Reason for Cancellation field
- MSCH: The value is "S" if only entries for scheduled appointments are to be on the report; "U" if only entries for unscheduled exams are included; "A" if all are included
- MSCHED: The internal value of an appointment history Scheduled or Unscheduled field
- MT1: The report ending date in FileMan format
- MT2: The report ending program value

In addition to standard FileMan variables, routine T2MRA4 uses the following variables:

- M1: A pointer to an agency
- M2: An agency unit Code/Abbreviation
- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MAGENCY: A pointer to an employee's agency
- MAGP: An agency Code/Abbreviation
- MAPP: A shop count of appointments
- MAPPT: A total of appointments
- MBADG: An employee's local badge number
- MC: A pointer to a Medical Program file entry and the corresponding entry number in an appointment history Program subfile

- MCOD: A program Program Code
- MDAT: An appointment history Date of Exam/Appointment in FileMan format
- MDOB: An employee's birthdate in FileMan format
- MEMP: The zero node of an Employee file entry
- MF1: The report starting date in FileMan format
- MFOL: An appointment history entry Visit Following Flag
- MISS: A shop count of missed appointments
- MISSJ: A shop count of justified missed appointments
- MISSJT: An agency total of justified missed appointments
- MISST: An agency total of missed appointments
- MISSU: A shop count of unjustified missed appointments
- MISSUT: An agency total of unjustified missed appointments
- MJOB: An employee's Job Title
- MNAM: An employee's Name
- MNUM: A pointer to an employee's Agency Unit
- MOC: An employee's occupation code
- MP: (1) An Employee file entry number
(2) A Medical Program file entry number
- MPROG: A Medical Program file entry
- MR: A pointer to an appointment history reason for exam
- MREAS: A Reason for Medical Visit/Exam entry
- MSH: An agency unit Code/Abbreviation
- MSH0: A value of "ALL" indicates that the report is to be done for all agency units in an agency

- MSHF: The internal value of an employee's shift
- MSHOP: An employee's agency unit
- MSSN: An employee's social security number
- MSTR: (1) The counts for a shop
(2) The zero node of a Medical Appointment History file entry
(3) The zero node of an appointment history Program subfile entry
(4) A line from an appointment history Missed Appointment Justification entry
- MT1: The report ending date in FileMan format
- MTYPE: An appointment history Program subfile entry Enrollment Type
- MX: An entry number for a line of an appointment history Missed Appointment Justification

In addition to standard FileMan variables, routine T2MRA5 uses the following variables:

- M1: A pointer to an agency
- M2: An agency unit Code/Abbreviation
- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MAGENCY: A pointer to an employee's agency
- MAGP: An agency Code/Abbreviation
- MAPP: A shop count of appointments
- MAPPT: A total of appointments
- MBADG: An employee's local badge number
- MC: A pointer to a Medical Program file entry and the corresponding entry number in an appointment history Program subfile
- MCAN: A shop count of cancelled appointments
- MCANC: A shop count of clinic cancelled appointments

- MCANCT: An agency total of clinic cancelled appointments
- MCANS: A shop count of shop cancelled appointments
- MCANST: An agency total of shop cancelled appointments
- MCANT: An agency total of cancelled appointments
- MCOD: A program Program Code
- MDAT: An appointment history Date of Exam/Appointment in FileMan format
- MDOB: An employee's birthdate in FileMan format
- MEMP: The zero node of an Employee file entry
- MF1: The report starting date in FileMan format
- MFOL: An appointment history entry Visit Following Flag
- MJOB: An employee's Job Title
- MNAM: An employee's Name
- MNUM: A pointer to an employee's Agency Unit
- MOC: An employee's occupation code
- MP: (1) An Employee file entry number
(2) A Medical Program file entry number
- MPROG: A Medical Program file entry
- MR: A pointer to an appointment history reason for exam
- MREAS: A Reason for Medical Visit/Exam entry
- MSH: An agency unit Code/Abbreviation
- MSHO: A value of "ALL" indicates that the report is to be done for all agency units in an agency
- MSHF: The internal value of an employee's shift
- MSHOP: An employee's agency unit

- MSSN: An employee's social security number
- MSTR: (1) The counts for a shop
(2) The zero node of a Medical Appointment History file entry
(3) The zero node of an appointment history Program subfile entry
- MT1: The report ending date in FileMan format
- MTYPE: An appointment history Program subfile entry Enrollment Type

Routine T2MRA5A uses the following variables:

- M1: An appointment Date Scheduled in FileMan format
- M2: A Medical Appointment file entry number
- MA: A pointer to an employee's agency
- MB: An employee's Agency Unit

Routine T2MRA8 uses the following variables:

- M1: (1) An appointment history Date of Exam Appointment in File-Man format
(2) A flag used to print a header for a new shop
(3) The hours in a time
- M2: The minutes in a time
- MA: A Medical Appointment History file entry number
- MAG: A pointer to an agency
- MAPP: A shop count of appointment history entries
- MAPPT: An agency total of appointment history entries
- MBADG: An employee's local badge number
- MBASE: The internal value of an employee's Pay Basis
- MCL: A Clinic file entry number

- MCOS: Total exam time cost for a shop
- MCOSO: The exam time cost of an appointment history entry
- MCOST: Total exam time cost for an agency
- MDAT: An appointment history entry Date of Exam/Appointment in FileMan format
- MDAT1: The report starting date in FileMan format
- MDAT2: The report ending date in FileMan format
- MDOB: An employee's birthdate in FileMan format
- ME: A Medical Program file entry
- MEMP: The zero node of an Employee file entry
- MHR: The total exam time in hours for an appointment history entry including the shipyard travel time
- MIN: The total exam time in minutes for an appointment history entry including the shipyard travel time
- MJOB: An employee's Job Title
- MNAM: An employee's Name
- MOC: An employee's occupation code
- MP: An Employee file entry number
- MRAT: An employee's Pay Rate
- MREAS: An appointment history Reason for Visit
- MSH: A pointer to an Agency Unit file entry or "A" for all shops
- MSHF: The internal value of an employee's shift
- MSHOP: A pointer to an employee's Agency Unit
- MSTR: The zero node of a Medical Appointment History file entry

- MTIM: The total exam time in minutes for a shop's appointment history entries
- MTIMO: The total exam time in minutes for an appointment history entry
- MTIM1: An appointment history Clinic Time In
- MTIM2: An appointment history Clinic Time Out
- MTIMT: The total exam time in minutes for an agency's appointment history entries
- MTR: The clinic Shipyard Travel Time
- MWAG: An employee's hourly wage
- MX: A pointer to a Medical Program file entry and the corresponding appointment history Program subfile entry number

6.7.5 Remarks

The QUAL STATUS-MED and QUAL STATUS-BOTH print templates use the Print Any Medical Programs computed field, which indicates whether there are current enrollments, and the Print Program Line computed field, which formats the line for a program. The Print Program Line computed field is discussed in Section 9.13.

All the reports that are generated from the appointment history file use the employee's current information on occupation, wages, and shop for selection and reporting.

7.0 MEDICAL TABLES AND PROGRAM/TESTS LINKAGES

7.1 Introduction

This process allows users to initialize and maintain the Preexam Instructions, Medical Program Tests, Medical Program, and Clinic files. In addition, users can initialize and modify the linkages between the Medical Program file and the Occupation, Stressor, Operation, and Location files. Figure 7-1 illustrates the files and data flow for the options that affect program/occupation links and program/location links. The options affecting program links to the Stressor and Operation files have data flow that is similar to the option on program/location links.

7.2 Pre-exam Instructions Table Entry Option

7.2.1 Purpose

This option is used to initialize and modify the Preexam Instructions file.

7.2.2 Overview

Routine T2MIE performs this option. The routine structure is shown in Figure 7-2. The routine calls routine DIC to look up or create an entry, locks the entry, and uses routine T2GED to edit the entry.

7.2.3 Globals Referenced

The following global is read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Preexam Instructions	---	1139	↑MED(1139,	MES	Update

7.2.4 Variables

Only standard FileMan and utility variables are used by routine T2MIE.

7.3 Medical Test Table Entry/Edit Option

7.3.1 Purpose

This option allows users to change the general medical protocol used to specify and print program protocols and employee medical exam protocols.

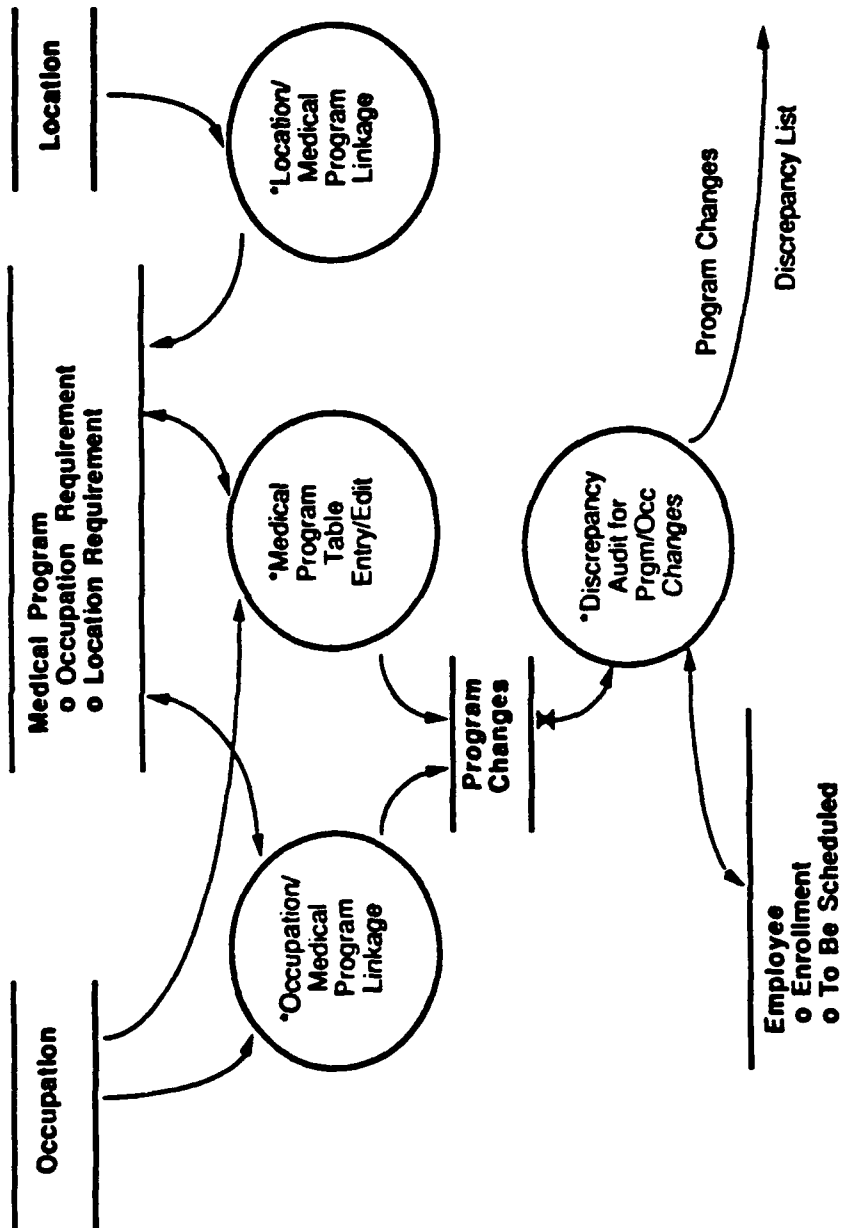


FIGURE 7-1
MEDICAL PROGRAM REQUIREMENTS

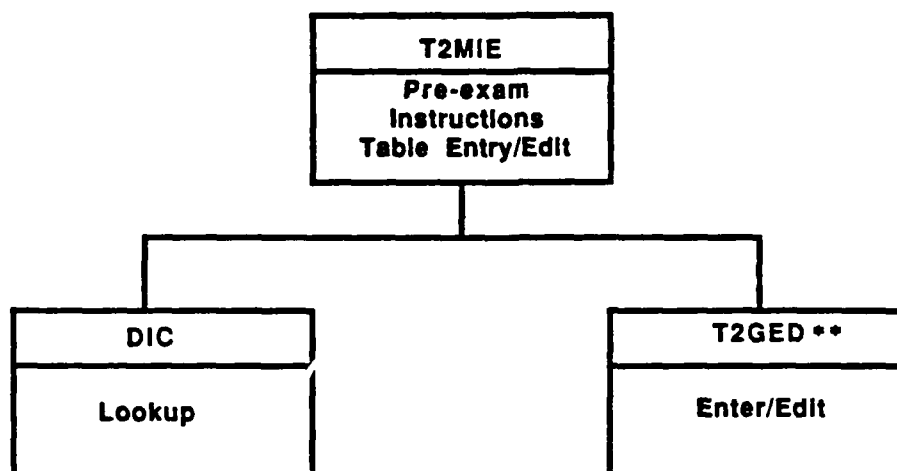


FIGURE 7-2
PRE-EXAM INSTRUCTIONS TABLE ENTRY/EDIT
OPTION ROUTINE STRUCTURE

7.3.2 Overview

This option is performed by routine T2MXE. Figure 7-3 presents the routine structure. The routine uses routine DIC to select or create an entry, locks the entry, and calls routine T2GED to edit the entry.

7.3.3 Globals Referenced

The following global is read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Tests	---	1129	↑MED(1129,	MES	Update

7.3.4 Variables

Routine T2MXE uses only standard FileMan and utility variables.

7.4 Medical Program Table Entry/Edit Option

7.4.1 Purpose

This option allows users to make changes to the Medical Program file entries that affect the allowed reexamination frequencies, the exam protocol listings, the instructions for appointment notices, the time allowed for the exam, the program description, and the program status. The option forces an audit of the employee Enrollment subfile if a reexam frequency is changed or deleted or if a program that is linked to an occupation is inactivated.

7.4.2 Overview

Routine T2MPE performs this option. The routine structure is illustrated in Figure 7-4. The routine first locks the full Employee, Program Changes, and Medical Program files. If there are Program Changes file entries, indicating an audit is in process, the routine is exited.

Routine DIC is used to select or create a program entry. If the program has been edited already by this routine, it cannot be selected again and another program must be selected. The selected program is edited using routine T2GED and several checks are made to see if changes occurred that affect employee enrollment. If so, the user is asked whether the changes are to remain, which will cause an audit, or whether the program needs further changes, possibly to restore it to its original status. If an audit is to occur, routine DIC is used to create a program entry in the Program Changes file and routine DIE files the identified

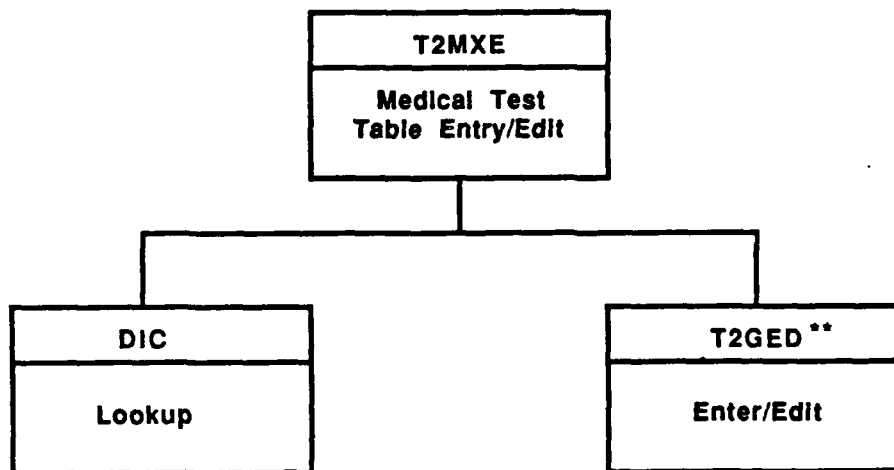


FIGURE 7-3
MEDICAL TEST TABLE ENTRY/EDIT OPTION
ROUTINE STRUCTURE

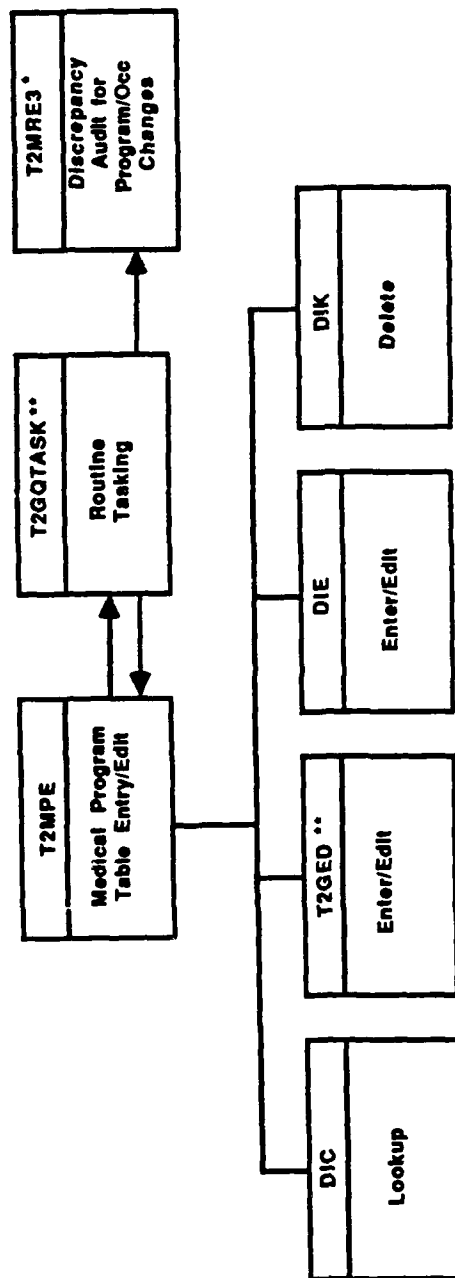


FIGURE 7-4
MEDICAL PROGRAM TABLE ENTRY/EDIT OPTION
ROUTINE STRUCTURE

changes. Routine DIK deletes stressor, location, operation, and occupation linkages for a newly inactivated program. If there are changes to program/occupation linkages, routine DIC is used to file the occupations in the Occupation subfile of the Program Changes file and routine DIE is used to record instances of newly added links.

If there are Program Changes file entries once all programs have been processed, the routine passes control to routine T2GQTASK which queues the Discrepancy Audit for Pgrm/Occ Changes option to be run on a selected device as soon as possible and then passes control back to T2MPE at line EX. If the job was not queued, control is passed back to line END to force queuing; otherwise, processing is complete until the system Task Manager passes control to the Discrepancy Audit for Pgrm/Occ Changes option.

7.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Update
Preexam	---	1139	↑MED(1139,	MES	Read
Instructions					
Medical Program	---	1129	↑MED(1129,	MES	Read
Tests					
Program Changes	---	1143	↑MED(1143,	MES	Update
Location	---	1073	↑AGENCY(1073,	ADMIN	Read
Operation	---	1087	↑DIZ(1087,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read
Stressor	---	1083	↑STRESS(0,	ADMIN	Read

7.4.4 Variables

In addition to standard FileMan and utility variables, routine T2MPE uses the following variables:

- ME: A Medical Program file entry number and the corresponding entry number in the Program Changes file
- MFO: A value of one indicates a change that disallows use of one-time exams for a program
- MFN: An array holding the new contents of the two Periodic Exam Frequency fields

- MFO: An array holding the original contents of the two Periodic Exam Frequency fields
- MIN: A value of one indicates a program is newly inactivated
- MND: The Medical Program file node holding linkages to the Occupation, Operation, Location, or Stressor file
- MPO: The original zero node of a Medical Program file entry
- MPN: The edited zero node of a Medical Program file entry
- MRA: An array with subscripts that are pointers to Occupation file entries that are newly linked to a program
- MRD: An array with subscripts that are pointers to Occupation file entries that have just had the linkage to a program deleted

7.4.5 Remarks

The Discrepancy Audit for Pgrm/Occ Changes option is discussed in Section 8.5. Section 9.14 reviews special triggers used by this routine to set up the MRA and MRD arrays.

The T2GED edit calls routine T2MPE at line CKF to verify that at least one frequency has been allowed for a program.

The complex logic concerning the MFN and MFO arrays is designed to reflect overall changes in a program's frequencies. For example, if the original frequencies are 6 and 12 with the 6 being changed to 9 and the 12 to 6, the net result is that 12 was changed to 9. Similarly, if the 6 is deleted and the 12 changed to 6, the net result is deletion of the 12. These net results are what will be used to audit employee Enrollment subfile data.

7.5 Clinic Table Entry/Edit Option

7.5.1 Purpose

This option allows users to change the grace periods, cost accounting, and scheduling parameters associated with a clinic.

7.5.2 Overview

This option is performed by routine T2MCE. Figure 7-5 illustrates the routine structure. Routine DIC is used to select or create a Clinic file entry, the entry is locked, and then it is edited using routine T2GED. For a manual scheduling clinic, no more processing is necessary

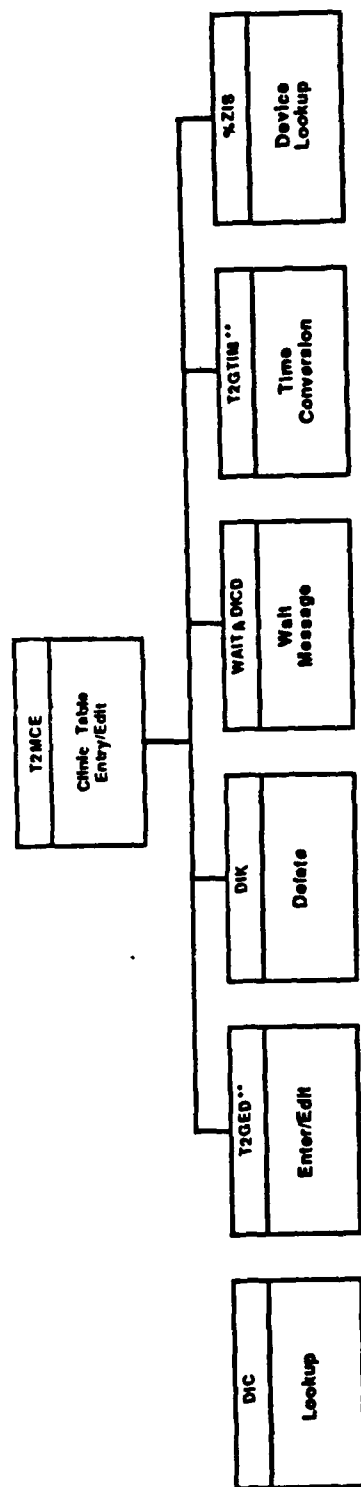


FIGURE 7-5
CLINIC TABLE ENTRY/EDIT OPTION
ROUTINE STRUCTURE

and control is passed back to get the next clinic. For a clinic with an automated scheduling system and no change in the day's start or end time or in the time slot length, the existing generic week is displayed on the calling device, with routine %ZIS setting the device parameters, and control is passed to line DAY. Otherwise, the generic week is deleted using routine DIK. Then, a wait message is displayed using routine DICD, a new generic week is generated using routine DIC, the new week is displayed, and control is passed to line DAY.

Starting at line DAY, a generic week entry is selected using routine DIC. Then a time slot is selected using routines T2GTIM and DIC and edited using routine T2GED. The time slot and day selections are continued until the user is finished.

7.5.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Update
Medical Program	---	1088	↑MED(1088,	MES	Read

7.5.4 Variables

Routine T2MCE uses the following variables in addition to standard FileMan and utility variables:

- MCO: The original zero node of a Clinic file entry
- MCE: The end of a clinic day
- MCL: A Clinic file entry number
- MCS: The start of a clinic day
- MD: The internal value and entry number of a Clinic Day subfile entry
- MDY: The internal value and entry number of a Clinic Day subfile entry
- MH: The hour from the Start of Clinic Day field
- MHX: The hour from the End of Clinic Day field
- MLD: The internal value of a clinic Length of Time Slots field

- MSC: The internal value of a clinic Which Scheduling Used field
- MTS: A Time Slot Start Time and the corresponding subfile entry number in the Clinic file

7.5.5 Remarks

The clinic edit using T2GED calls routine T2MCE at line CKT to verify that the start and end times are in order and that the time slot length will evenly divide into the time available.

7.6 Occupation/Medical Program Linkage Option

7.6.1 Purpose

This option enables users to establish and delete links between programs and occupations. These links determine the required enrollments for an employee in an occupation. The option forces an audit of the employee Enrollment subfile if any links are changed.

7.6.2 Overview

Routine T2MPOC performs this option. The routine structure is presented in Figure 7-6. The routine first locks the full Employee, Program Changes, and Medical Program files. If there are Program Changes file entries, indicating that an audit is in process, the routine is exited.

If the user processes the linkages by program, routine DIC is called to select a program and routine DIE is used to edit the linkage. If changes were made to the linkage, the user is asked if the changes are to remain, which will cause an audit, or if the program needs further changes, possibly to restore the original links. If an audit is to occur, the routine section from line FIL to line K is done to file changes.

Starting at line FIL, the changes are filed using routine DIC to create an entry in the Program Changes file and routine DIE to file the date. Next, deleted occupations are filed in the Occupation subfile of the Program Changes file using routine DIC. These entries are deleted from the Occupation subfile, using routine DIK, when the subfile entry is an existing entry that added the occupation now being deleted. Then, added occupations are filed in the Occupation subfile of the Program Changes file using routines DIC and DIE. These entries are deleted from the subfile, using routine DIK, when the entry is an existing entry that deleted the occupation now being added. When the subfile processing deletes all the change fields, the Program Changes entry is deleted using routine DIK.

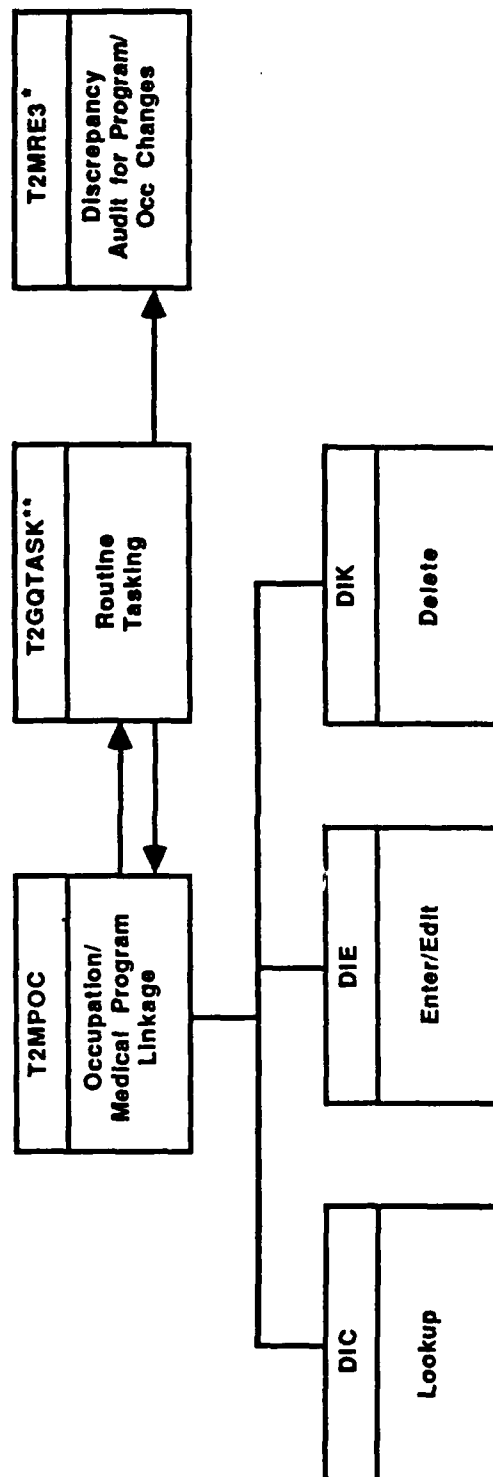


FIGURE 7-6
OCCUPATIONAL/MEDICAL PROGRAM LINKAGE OPTION
ROUTINE STRUCTURE

If the user processes the linkages by occupation, routine DIC is called to select an occupation and then to select an active program. When there is already a link, the user is asked if the link is to be deleted and, if so, routine DIK deletes the link and line FIL is called to file the change. When there is no current link, the user is asked if the link is to be added and, if so, routine DIC adds the link and line FIL is called to file the change.

If there are Program Changes file entries once all the processing is finished, the routine passes control to routine T2GQTASK which queues the Discrepancy Audit Pgrm/Occ Changes option to be run on a selected device as soon as possible and then passes control back to T2MPOC at line EX. If the job was not queued, control is passed back to line END to force queuing; otherwise, processing is complete until the system Task Manager passes control to the Discrepancy Audit for Pgrm/Occ Changes option.

7.6.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Update
Program Changes	---	1143	↑MED(1143,	MES	Update
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

7.6.4 Variables

The following variables are used by routine T2MPOC in addition to standard FileMan and utility variables:

- ME: A Medical Program file entry number
- MK: (1) The zero node for an Occupation subfile entry in the Program Changes file
(2) The zero node for a Program Changes file entry
- MOCC: A pointer to an Occupation file entry and the corresponding entry number in the Occupation Requirement subfile of the Medical Program file
- MPN: The zero node of a Medical Program file entry
- MRA: An array with subscripts that are pointers to Occupation file entries that are newly linked to a program

- MRD: An array with subscripts that are pointers to Occupation file entries that have just had the linkage to a program deleted
- SNAME: An Occupation file entry

7.6.5 Remarks

The Discrepancy Audit for Pgrm/Occ Changes option is discussed in Section 8.5. Section 9.14 reviews special triggers used by this routine to set up the MRA and MRD arrays.

7.7 Location/Medical Program Linkage Option

7.7.1 Purpose

This option allows users to establish and delete links between programs and locations.

7.7.2 Overview

This option is performed by routine T2MPLO. Figure 7-7 illustrates the routine structure.

Whether the user processes the linkages by program or location, routine DIC is called to select a program and routine T2GL is used to select or add a location. When processing by program, routine DIC is used to provide a Location subfile question mark response and to look up or add the Location subfile entry; routine DIE allows the user to delete the subfile entry. When processing is by location, routine DIC is used to add a new subfile entry and routine DIK is used to delete an old subfile entry.

7.7.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Update
Location	---	1073	↑AGENCY(1073,	ADMIN	Read

7.7.4 Variables

In addition to standard FileMan and utility variables, routine T2MPLO uses the following variables:

- ME: A Medical Program file entry number
- SNAME: A Location file entry

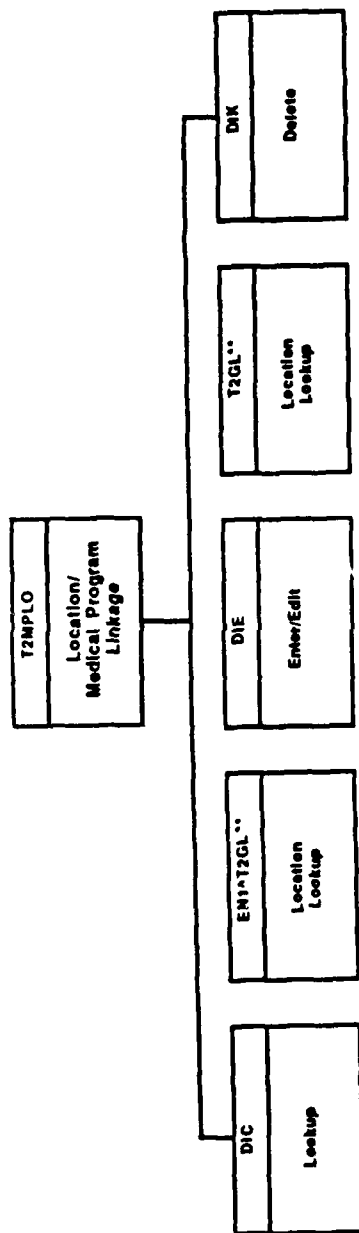


FIGURE 7-7
LOCATION/MEDICAL PROGRAM LINKAGE OPTION
ROUTINE STRUCTURE

- STR: A Location file entry number and the corresponding Location subfile entry number in the Medical Program file

7.8 Operation/Medical Program Linkage Option

7.8.1 Purpose

This option enables users to establish and delete links between programs and operations.

7.8.2 Overview

Routine T2MPOP performs this option. The routine structure is shown in Figure 7-8. If the user processes the linkages by program, routine DIC is called to select a program and routine DIE is used to edit the linkage. If the user processes the linkages by operation, routine DIC is used to select an operation and then a program. When there is a link that the user wants to delete, routine DIK does the deletion. When there is no current link and the user wants to establish one, routine DIC adds the link.

7.8.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Update
Operation	---	1087	↑DIZ(1087,	ADMIN	Read

7.8.4 Variables

The following variables are used by routine T2MPOP in addition to standard FileMan variables:

- ME: A Medical Program file entry number
- SNAME: An Operation file entry
- STR: An Operation file entry number and the corresponding Operation Requirement subfile entry number in the Medical Program file

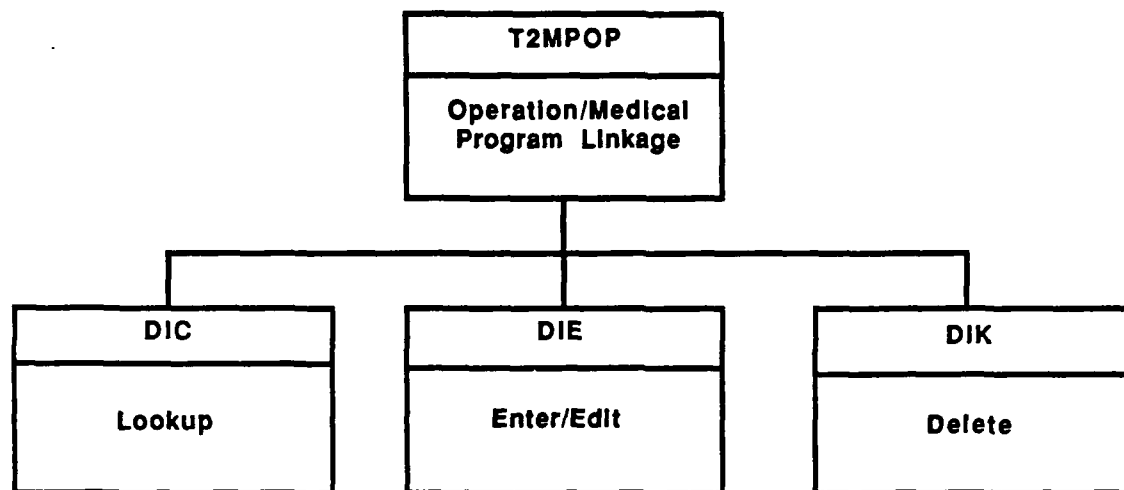


FIGURE 7-8
OPERATION/MEDICAL PROGRAM LINKAGE OPTION
ROUTINE STRUCTURE

7.9 Stressor/Medical Program Linkage Option

7.9.1 Purpose

This option adds and deletes links between programs and stressors. These links are used to determine automatic system actions based on exposures.

7.9.2 Overview

This option is performed by routine T2MPS. Figure 7-9 presents the routine structure. If the user processes the linkages by program, routine DIC is called to select a program and routine DIE is used to edit the linkage. If the user processes the linkage by stressor, routine T2SL is used to select a stressor and routine DIC is called to select a program. When there is a link that the user wants to delete, routine DIK does the deletion. When there is no current link and the user wants to establish one, routine DIC adds the link.

7.9.3 Globals Referenced

The following globals are read and/or updated:

<u>File</u> <u>Name</u>	<u>Subfile</u> <u>Name</u>	<u>File</u> <u>Number</u>	<u>Global</u> <u>Reference</u>	<u>Module</u> <u>Owner</u>	<u>Read or</u> <u>Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Update
Stressor	---	1083	↑STRESS(0,	ADMIN	Read

7.9.4 Variables

Routine T2MPS uses the following variables in addition to standard FileMan variables:

- ME: A Medical Program file entry number
- SNAME: A Stressor file entry
- STR: A Stressor file entry number and the corresponding Stressor Requirement subfile entry number in the Medical Program file

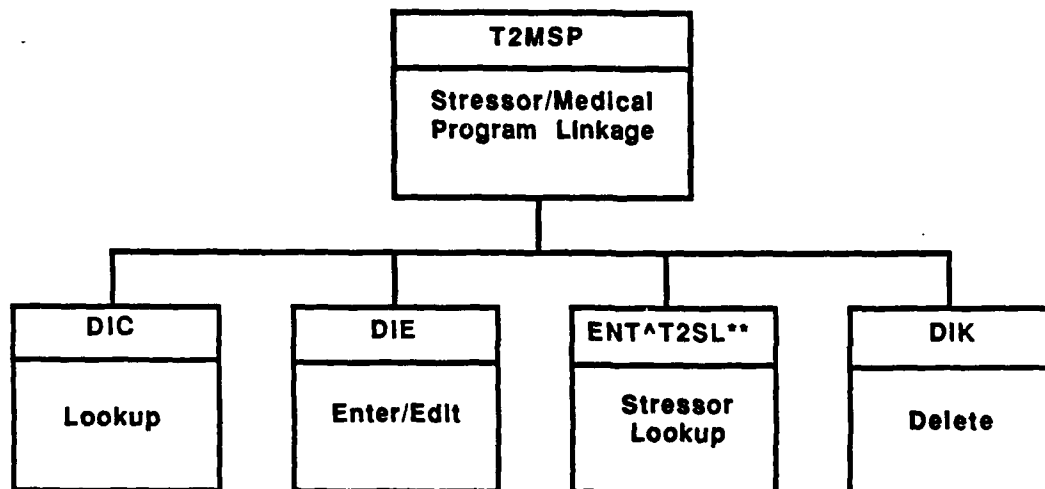


FIGURE 7-9
STRESSOR/MEDICAL PROGRAM LINKAGE OPTION
ROUTINE STRUCTURE

8.0 MEDICAL AUDIT FUNCTIONS

8.1 Introduction

There are four audit options that help System Managers to maintain the integrity of major files and their data links. The available audits process the Medical Appointment file for missed appointments, the employee Enrollment subfile for inconsistencies with employee occupation requirements, the employee Enrollment and Medical Qualification subfiles for newly lapsed qualifications and for automatic changes in asbestos program enrollments, and the employee Enrollment subfile for changes made to program requirements.

8.2 Discrepancy Audit of Personnel File Option

8.2.1 Purpose

This option allows the user to check the integrity of the Enrollment subfile for employees in a selected agency. It generates a report that shows problems in enrollment and related Employee file problems as well as changes made by the system to enrollment.

8.2.2 Overview

This option is performed by routine T2MRE1. Figure 8-1 illustrates the routine structure. The routine first locks the Employee file, then uses routine DIC to select an agency. Next, control is passed to routine T2GQTASK which queues the routine to be run on a selected device at a specified time and passes control back to line EX, at which time processing is complete. If a job was queued, the system Task Manager will return control to line GO at the specified time. At this point, the routine relocks the Employee file, prints a header, and uses routine %DTC to establish a cutoff date used to look for overdue hire dates.

To produce the report in alphabetical order, the routine processes the Employee file using the "B" cross index, bypassing old names and entries from a different agency. An employee is listed on the report if the employee's entry fits one or more of the following:

- There is no hire date and the entry was created before the cutoff date
- The employee is terminated but still has program enrollments
- There is no occupation code but there are program enrollments

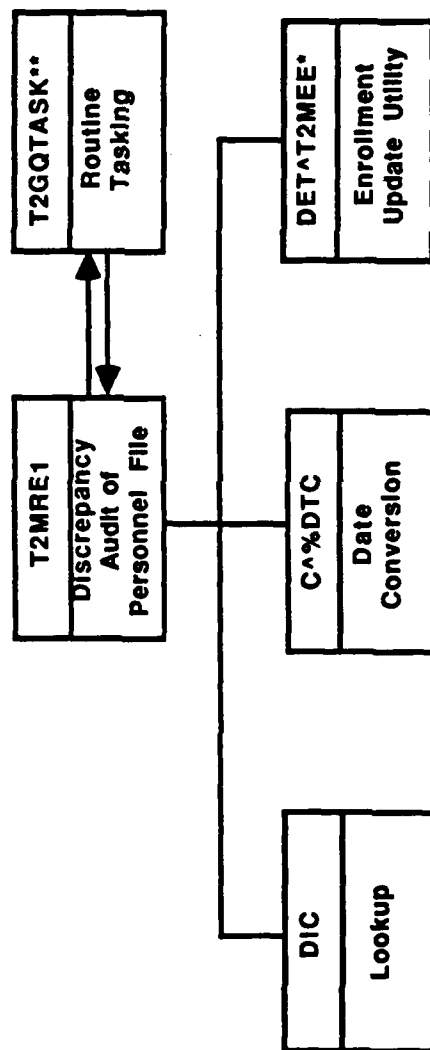


FIGURE 8-1
DISCREPANCY AUDIT OF PERSONNEL FILE
OPTION ROUTINE STRUCTURE

- One or more program enrollments are missing for required programs
- There are enrollments filed as required that are not required by the employee's occupation

In addition, if enrollment in a program is required for the employee's occupation but the current enrollment is personal or job-related, or if an enrollment reexam frequency is not a valid program frequency, the routine will use the Enrollment Update utility to modify the employee Enrollment subfile and will list the employee's enrollment data on the report. The report includes the employee's current enrollment and removal data and any pertinent messages.

8.2.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Employee	--- Enrollment (Medical Program)	1088 1004.05	↑MED(1088, ↑EMPLOY(#,3,	MES MLS	Read Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

8.2.4 Variables

In addition to standard FileMan and utility variables, this routine uses the following variables:

- M1: An employee's name as an index
- MAG: The selected agency's entry number
- MAGP: The selected agency's Code/Abbreviation
- MCR: An employee Record Create Date in FileMan format
- MDT: In FileMan format, a date 60 days earlier than the current date; this is used to identify old prehire entries

- ME: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry number, used for searching
- MEX: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry number, used for printing
- MF: The value is one if an employee's data has already been printed; otherwise, the value is zero
- MFQ0: The Reexam Frequency for an employee Enrollment subfile entry
- MFQ1: The value is zero if the program allows one-time exams
- MFQ2: A program Periodic Exam Frequency 1 field value
- MFQ3: A program Periodic Exam Frequency 2 field value
- MME: A variable used by the Enrollment Update utility to bypass user interaction
- MOCC: A pointer to an employee's occupation code
- MP: An Employee file entry number
- MREAS: Message text
- MSDR: The DR string to be used by the Enrollment Update utility
- MSTR: The zero node for an Employee file entry
- MSTR1: The zero node of the employee Enrollment subfile entry being printed
- MTAB: An array of programs associated with an employee's occupation
- MTO: The occupation code entry number for terminated employees
- MX0: The zero node of the employee Enrollment subfile entry being searched

8.3 Qualification Audit Option

8.3.1 Purpose

This option files a status of "not qualified" for employee periodic programs that have an expiration date that is earlier than the current

date. In addition, for employees age 45 or over, this option changes asbestos program enrollment from a 5-year to a 1-year reexamination frequency with a Date Next Exam within the next year. This option should be run daily.

8.3.2 Overview

Routine T2MEA performs this option. The routine structure is illustrated in Figure 8-2. First, this routine locks the full Clinic and Employee files and identifies the asbestos program. For each clinic, the routine establishes the cutoff date for the qualification grace period by calling routine %DTC and loops through the associated agencies and their employees' programs, setting up an employee's birthdate using routine %DTC. For each program in which an employee is enrolled, the routine first identifies asbestos programs that need frequency changes and calls the Enrollment Update utility to modify the enrollment. Then the routine checks for a program qualification status other than "not qualified" in a program with an Expiration Date Basis that is older than the cutoff date. For expired programs, the routine calls the Qualification Status Filing utility to file a "not qualified" effective today.

8.3.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Employee	Medical Qualification	1004.08	↑EMPLOY(#,12,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read

8.3.4 Variables

In addition to standard FileMan and utility variables, this routine uses the following variables:

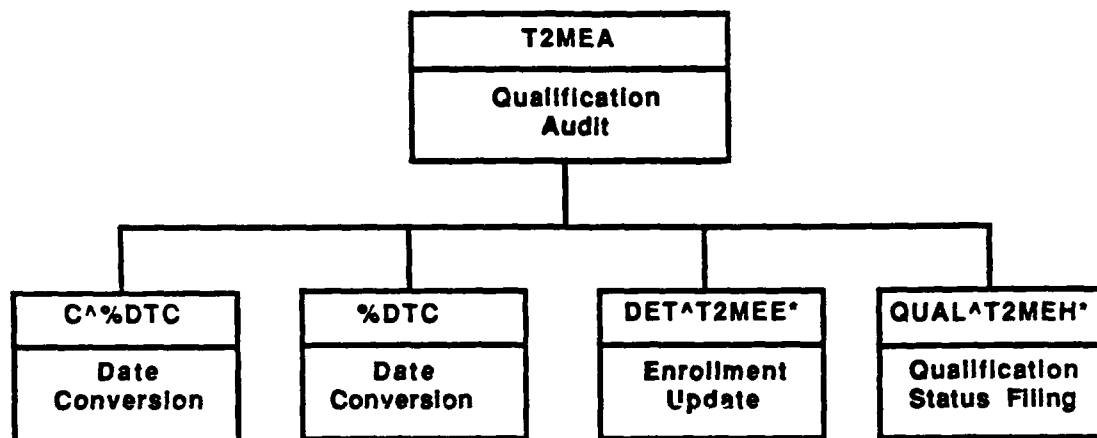


FIGURE 8-2
QUALIFICATION AUDIT OPTION
ROUTINE STRUCTURE

- MAG: A pointer to an agency
- MAGE: An employee's age
- MASB: A pointer to the asbestos program
- MCL: A Clinic file entry number
- MDN: The Date Next Exam in FileMan format for an employee Enrollment subfile entry
- ME: An employee Enrollment subfile entry number which is also a pointer to a Medical Program file entry
- MEXP: The Expiration Date Basis, in FileMan format, for an employee Enrollment subfile entry
- MME: A variable used by the Enrollment Update utility to bypass user interaction
- MP: An Employee file entry number
- MPDE: The expiration cutoff date for a clinic
- MQ: The internal value of the qualification status being filed
- MQD: The effective date, in FileMan format, of a qualification status
- MSDR: The DR string to be used by the Enrollment Update utility
- MYO: The zero node of an employee Enrollment subfile entry

8.3.5 Remarks

The Enrollment Update utility is discussed in Section 9.2. The Qualification Status Filing utility is discussed in Section 9.12.

8.4 Schedule Audit Option

8.4.1 Purpose

This option files past appointments as "missed" if they remain in the schedule longer than the Schedule Grace Period allows for the clinic. For clinics with an automated scheduling system, this option also deletes past clinic template dates that have no appointment entries.

8.4.2 Overview

This option is done by routine T2MSA. Figure 8-3 presents the routine structure. The routine first locks the Clinic, Medical Appointment, Medical Appointment Scheduling, and Medical Appointment History files, then it loops through the clinics.

For each clinic, the routine establishes the cutoff date for past appointments and, for dates earlier than the cutoff, it moves each appointment on that date into the Medical Appointment History file using routines DIC and DIE at both the file level and the Program subfile level. It also deletes each appointment from each time slot in the Medical Appointment Scheduling file if appropriate, and from the Medical Appointment file, using routine DIK. Once a clinic's past appointments have been moved and deleted, the past dates without appointments are deleted from the Medical Appointment Scheduling file using routine DIK.

8.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Medical Appointment History	---	1126	↑MED(1126,	MES	Update
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read

8.4.4 Variables

Routine T2MSA uses the following variables in addition to standard FileMan variables:

- MA: A Medical Appointment History file entry number
- MCL: A Clinic file entry number

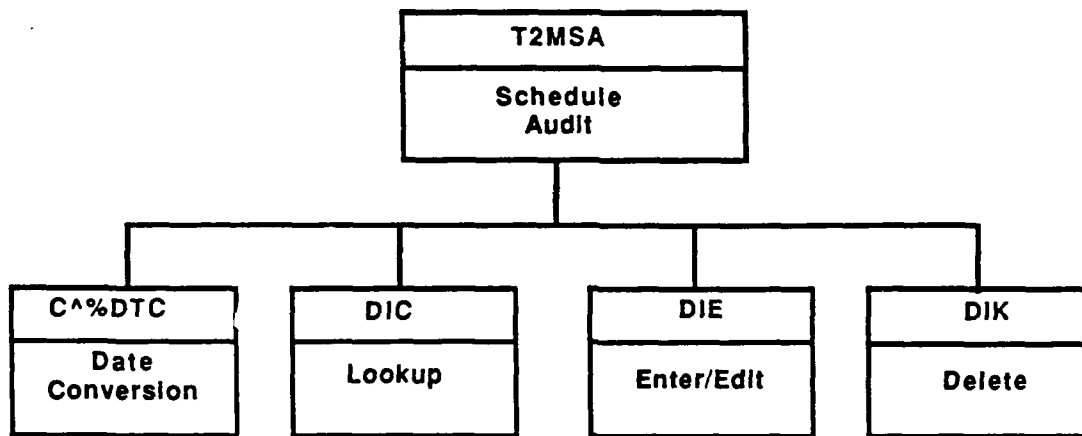


FIGURE 8-3
SCHEDULE AUDIT OPTION
ROUTINE STRUCTURE

- MDT: An appointment Date Scheduled in FileMan format and the corresponding entry number for the Date Scheduled subfile in the Medical Appointment Scheduling file
- MDTE: A clinic's cutoff date for processing past appointments
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in an appointment Medical Program Scheduled subfile and an appointment history Program subfile
- MP: An Employee file entry number
- MS: A Medical Appointment file entry number and the corresponding entry number in the Employee Scheduled subfile of the Medical Appointment Scheduling file
- MSC: The internal value of a clinic Which Scheduling Used field
- MSCH: (1) The zero node for a Medical Appointment file entry
(2) The zero node for a Medical Program Scheduled subfile entry in a Medical Appointment file entry
- MTS: The inverse of a Time Slot Start Time entry number in the Medical Appointment Scheduling file

8.5 Discrepancy Audit for Prgm/Occ Changes Option

8.5.1 Purpose

This option makes changes to employee enrollment in response to user modification of the Medical Program file or its links to the Occupation file. This option is automatically invoked on exit from an option that modifies a program or its occupation links. If such an audit ends abnormally, this option can be called directly to complete the audit.

8.5.2 Overview

Routine T2MRE3 performs this option. The routine structure is illustrated in Figure 8-4. First, this routine locks the full Employee file, calls routine %ZIS to establish the device characteristics, prints a header, and identifies the asbestos program. To produce the report in alphabetical order, the routine processes the Employee file using the "B" cross index, bypassing old names. For each employee, the routine processes the Program Changes file entries for changes affecting the employee's enrollment. The Enrollment Removal utility is used to remove

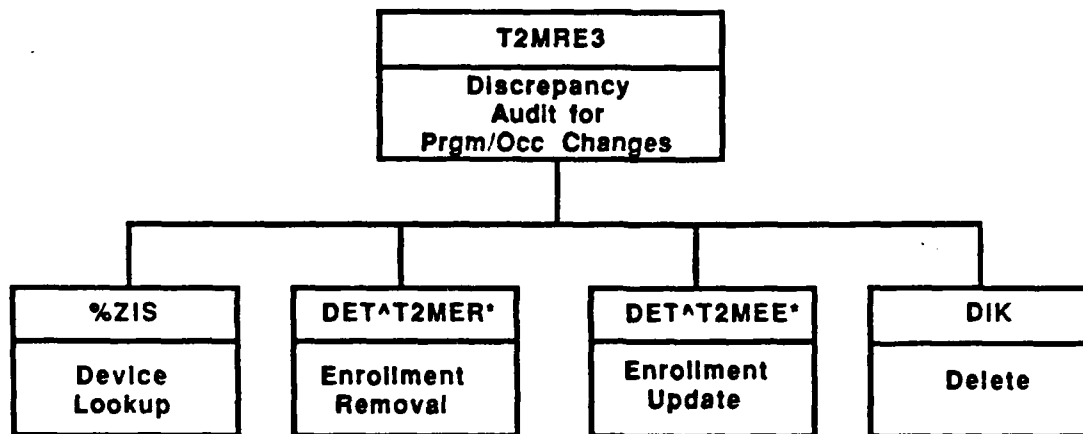


FIGURE 8-4
DISCREPANCY AUDIT FOR PRGM/OCC CHANGES
OPTION ROUTINE STRUCTURE

enrollment for inactivated programs and programs which are no longer required for the employee's occupation. The Enrollment Update utility is called to change existing enrollments to required, to add new enrollments for programs that are newly required for the employee's occupation, or to change a reexam frequency that has been modified. Enrollment changes are listed on the report along with messages warning of a missing or deleted reexam frequency. When all employee entries have been processed, the routine deletes the Program Changes file entries using routine DIK.

8.5.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Program Changes	---	1143	↑MED(1143,	MES	Update
Reason for	---	1128	↑MED(1128,	MES	Read
Medical Visit/ Exam					
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

8.5.4 Variables

In addition to standard FileMan and utility variables, routine T2MRE3 uses the following variables:

- M1: An employee's name as an index
- MASB: A pointer to the asbestos program
- MC0: The zero node of a Program Changes file entry
- ME: A pointer to a Medical Program file entry and the corresponding entry number in the Program Changes file and an employee Enrollment subfile
- MES: The internal value of the Change Made field for an Occupation subfile entry in the Program Changes file
- MEX: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry, used for printing

- MF: The value is one if an employee's data has already been printed; otherwise, the value is zero
- MF1: A program Periodic Exam Frequency 1 field value
- MF2: A program Periodic Exam Frequency 2 field value
- MFQ: The longest valid reexam frequency under a program
- MFQ0: An employee's old or new enrollment reexam frequency
- MME: (1) Part of a DR string used by the Enrollment Removal utility
(2) A value used by the Enrollment Update utility to bypass user interaction
- MOCC: A pointer to an employee's occupation and the corresponding Occupation subfile entry number in the Program Changes file
- MP: An Employee file entry number
- MRE: A variable set up and used by the Enrollment Update utility
- MREAS: Message text
- MSDR: The DR string to be used by the Enrollment Update utility
- MSTR: The zero node for an Employee file entry
- MSTR1: The zero node of the employee Enrollment subfile entry being printed
- MX0: The zero node of the employee Enrollment subfile entry being processed
- MY0: The zero node of the employee Enrollment subfile entry being passed to the Enrollment Removal utility for processing

8.5.5 Remarks

The Enrollment Update utility is discussed in Section 9.2. The Enrollment Removal utility is reviewed in Section 9.3.

9.0 SPECIAL FUNCTIONS

9.1 Introduction

This section documents features used in more than one option of the MES module or used by other modules. The features include utility routines and special FileMan features such as computed fields, triggers, and input syntax checks.

9.2 Enrollment Update Utility

9.2.1 Purpose

This utility performs the prompting, filing, and processing associated with a new, modified, or replaced employee program enrollment.

9.2.2 Overview

This option is performed by routine T2MEE, lines DET through the end. Figure 9-1 illustrates the routine structure. First, the utility sets up needed variables. If there is no user interaction, control is passed to line ENR. Otherwise, the current enrollment and removal data is displayed using routine DIQ and the user is asked whether a new enrollment should be added or what is to be done to an existing enrollment.

Starting at line ENR, the employee Enrollment subfile entry is added or selected using routine DIC and the basic data is edited using routine T2GED. If the user is to be prompted, routine T2GED is called again to force the Next Exam Type to "baseline" for a one-time enrollment or to prompt for the Next Exam Type. When enrollment data has been changed, routine DIE is used to enter a new Date Enrolled for a modification and the Enrollment History Filing utility is called to store the changes.

If the Date Next Exam is in a future month and year, processing is complete unless there is a corresponding employee To Be Scheduled subfile entry and there is user interaction. In that case, the To Be Scheduled Filing utility is called.

When the Date Next Exam is for a past or current month and year, several things may happen. The To Be Scheduled Filing utility is called if there is user interaction or if the Date Next Exam has been changed during utility processing. If the enrollment is one-time, routine DIE is called to remove the enrollment and the Enrollment History Filing utility is used to store the change.

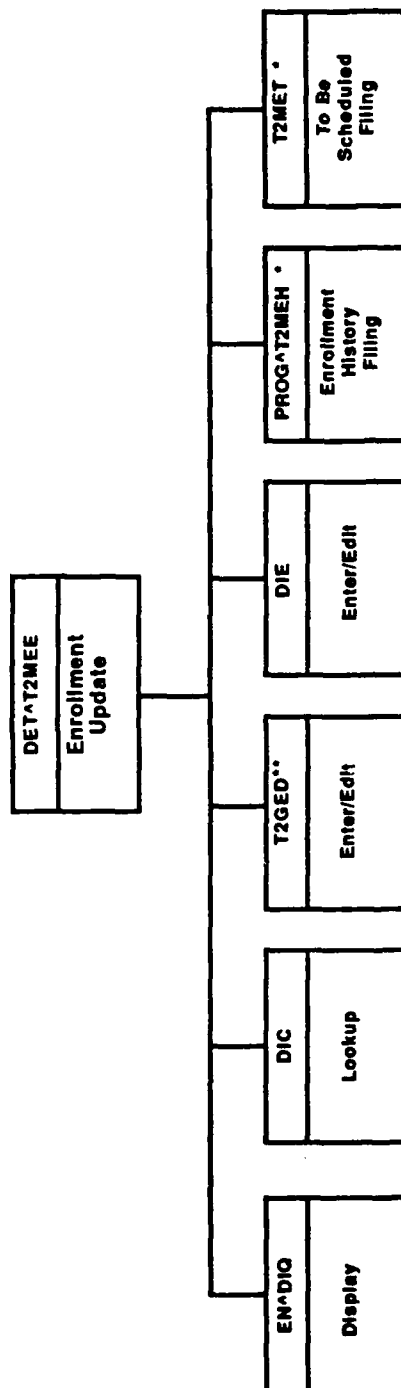


FIGURE 9-1
ENROLLMENT UPDATE UTILITY
ROUTINE STRUCTURE

9.2.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

9.2.4 Variables

This utility uses the following variables in addition to standard FileMan variables:

- MDE: The most recent Date Enrolled in FileMan format
- MDN: A Date Next Exam passed to the utility by the calling routine to be a default; it can be in internal or external format
- MDR: The most recent Date Removed, in FileMan format
- ME: A pointer to a Medical Program file entry and the corresponding entry number in an employee Enrollment subfile and an employee To Be Scheduled subfile
- MF: An array using as subscripts the valid reexamination frequencies for a program
- MME: A null value indicates a new enrollment with user prompting; "D" is for delete and replace of an existing enrollment with user prompting; "M" is for modification of an existing enrollment with user prompting; "O" is for entry or modification of an enrollment without user interaction

- MOCC: A pointer to an employee's occupation and the corresponding entry in the Occupation Requirements subfile of the Medical Program file
- MODN: The Date Next Exam in FileMan format before enrollment processing
- MP: An Employee file entry number
- MRE: A value of one indicates a program is required for the employee's occupation; otherwise the value is zero
- MSDR: A DR string passed to the utility to be used instead of the default DR string
- MST: The most recent Enrollment Status
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MYO: The zero node of an employee Enrollment subfile entry

9.2.5 Remarks

In establishing the standard DR string, if there is only one reexam frequency valid for a program, the value will be stuffed; otherwise, the user will be prompted and the Reexam Frequency input syntax check will use the MF array to validate the user entry.

The T2GED enrollment edit uses variable MRE to validate the Enrollment Type. The T2GED edit of the Next Exam Type prohibits selection of a removal exam.

The Enrollment History Filing utility is discussed in Section 9.10. The To Be Scheduled Filing utility is reviewed in Section 9.9.

A change in the Date Next Exam will trigger changes in the Old Date Next and in the Expiration Date Basis.

9.3 Enrollment Removal Utility

9.3.1 Purpose

This utility performs the prompting, filing, and processing associated with removing an employee enrollment or modifying an existing enrollment.

9.3.2 Overview

Lines DET through the end of routine T2MER perform this utility. The routine structure is presented in Figure 9-2. First, the utility sets up needed variables. If there is no user interaction, control is passed to line REM. Otherwise, processing continues as the current enrollment and removal data are displayed using routine DIQ. Next, the user is asked to verify that a new removal is to be done or an existing removal modified. Then the user is warned of existing appointments for the program. When the enrollment is or was periodic, the user is asked if a removal exam is desired. Next, the default DR string is set to delete or prompt for a Date Next Exam, depending on the need for a removal exam, and to review the Reason Removed and Date Exposure Reported.

Starting at line REM, the enrollment is edited using routine T2GED and the provided DR string. Any change is recorded by the call to the Enrollment History Filing utility. When there is no Date Next Exam, any existing employee To Be Scheduled subfile entry will be processed for deletion by the To Be Scheduled Filing utility and program processing is complete. Otherwise, the next step is modification of the Next Exam Type using routine DIE. Then, if the Date Next Exam is in a future month and year, any corresponding employee To Be Scheduled subfile entry will be processed for deletion using the To Be Scheduled Filing utility. Program processing is then complete.

When the Date Next Exam is for a past or current month and year, the To Be Scheduled Filing utility is called to process a possible new entry and routine DIE is used to delete the Date Next Exam.

9.3.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read

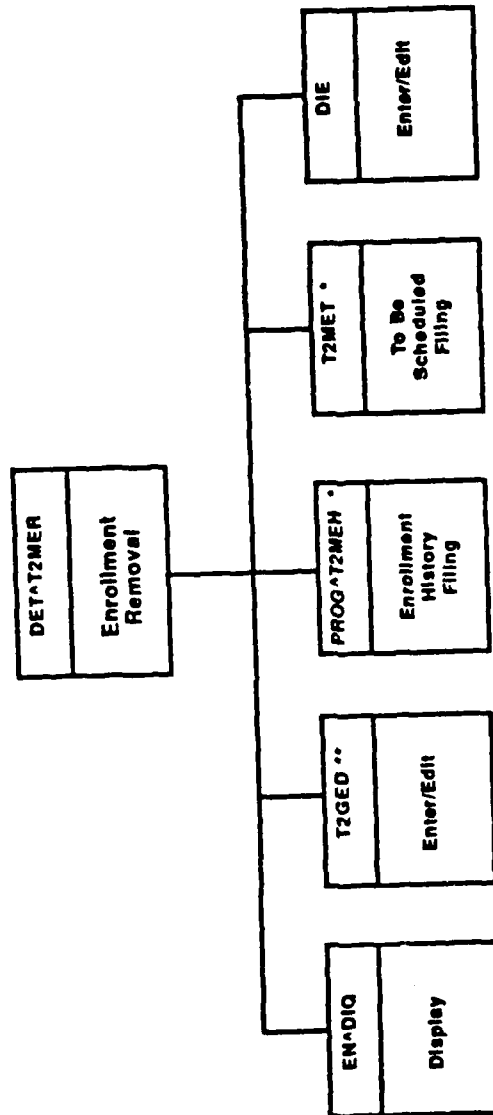


FIGURE 9-2
ENROLLMENT REMOVAL UTILITY
ROUTINE STRUCTURE

9.3.4 Variables

This utility uses the following variables in addition to standard FileMan variables:

- MDE: The most recent Date Enrolled, in FileMan format
- MDR: The most recent Date Removed, in FileMan format
- ME: A pointer to a Medical Program file entry and the corresponding entry number in an employee Enrollment subfile and an employee To Be Scheduled subfile
- MME: Part of a DR string passed by the calling routine or set up as a default and used to edit removal data
- MP: An Employee file entry number
- MST: The most recent Enrollment Status
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MYO: The zero node of an employee Enrollment subfile entry

9.3.5 Remarks

The calls to the To Be Scheduling Filing utility use different entry points based on need for user interaction. When the DR string in MME will prompt the user for Reason Removed, user interaction is assumed; otherwise, MME will cause the Reason Removed to be stuffed and no user interaction is assumed. The To Be Scheduled Filing utility is discussed in Section 9.9.

In constructing the reason for exam portion of the MTBS variable, the utility uses the enrollment Reason for Enrollment if the Exam Type is not a removal; otherwise, the reason for exam is presumed to be removal.

A change in the Date Next Exam will trigger changes in the Old Date Next and the Expiration Date Basis.

9.4 Automated Scheduling Appointment Check

9.4.1 Purpose

This utility determines whether a clinic's existing automated scheduling template can accommodate an appointment as entered or modified. If so, the appointment is filed in the template; otherwise, it is deleted or restored to its original status.

9.4.2 Overview

This utility is performed by lines CH through K in routine T2MSE. Figure 9-3 illustrates the routine structure. First the utility calculates the total time needed for the programs in the appointment and the estimated end of appointment time. Routine DIE stuffs the End of Appointment and routine T2GED is called to prompt the user for adjustments to the end time. If the appointment is deleted at this stage, processing is ended. Otherwise, the utility calculates the number of time slots needed and checks each time slot covered for availability and appropriate shift and program preference.

When a problem is found with the shift or availability, the Overlooking Check utility is called. If the user does not override the problem, routine DIE is used to restore the original date and start time to the appointment. If there is no problem or the user directs the system to complete the appointment, routine DIK is called to delete the appointment from the old date and time slots and routine DIC is used to file it at the new date and time slots.

9.4.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Employee	---	1004	↑EMPLOY(	ADMIN	Read

9.4.4 Variables

In addition to standard FileMan variables, this utility uses the following variables:

- MAF: A zero value indicates no problem with the appointment; a one indicates that there is a problem
- MAL: The total time in minutes needed to give exams for the programs in an appointment
- MCE: The End of Day for a clinic Date Scheduled subfile entry in the Medical Appointment Scheduling file

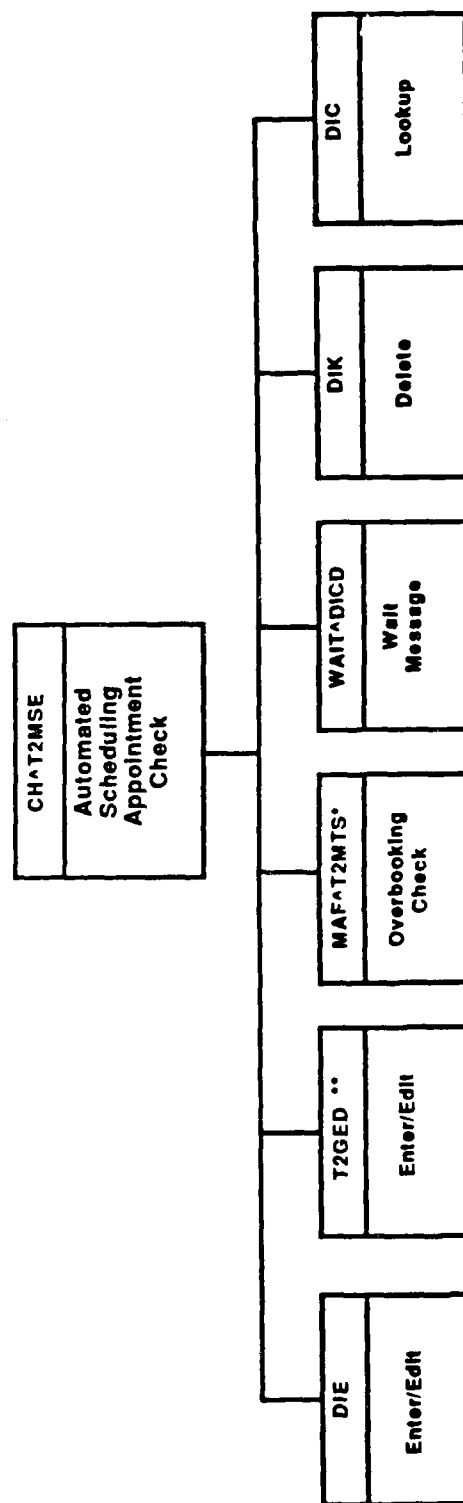


FIGURE 9-3
AUTOMATED SCHEDULING APPOINTMENT CHECK UTILITY
ROUTINE STRUCTURE

- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDO: The original appointment Date Scheduled in FileMan format and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- MDS: The edited appointment Date Scheduled in FileMan format and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- ME: A pointer to a Medical Program file entry and the corresponding entry number in the appointment Medical Program Scheduled subfile
- ML: The internal value for the length of a clinic's time slots or zero if the length is a day
- MP: An Employee file entry number
- MPF: A non-zero value indicates that program preferences did not match
- MS: A Medical Appointment file entry number and the corresponding Employee Scheduled subfile entry number in the Medical Appointment Scheduling file
- MSC: The internal value of a clinic Which Scheduling Used field
- MT: The number of consecutive time slots needed to cover the appointment time length
- MTB: (1) An appointment's original Time Scheduled
(2) A Time Slot Start Time subfile entry and an entry number in the Medical Appointment Scheduling file
- MTE: An appointment's edited End of Appointment
- MTO: An appointment's original End of Appointment
- MTS: (1) An appointment's edited Time Scheduled
(2) A Time Slot Start Time subfile entry and an entry number in the Medical Appointment Scheduling file
- MY: The GDA variable value for the Medical Appointment file entry being processed

9.4.5 Remarks

The estimated end of an appointment is based on the following rules:

- (1) If each time slot is a day long, it is the End of Day
- (2) If the total time needed is zero, it is the start time plus the length of one time slot
- (3) Otherwise, the end time is the number of time slots needed to cover the length of the appointment multiplied by the time slot length and added to the start time

The T2GED edit for the End of Appointment will only accept an existing time slot (or End of Day) for an existing day where the time is after the Time Scheduled.

This utility indicates there is a problem with an appointment when one of the following is true for a time slot:

- There is no available capacity and the appointment is not already scheduled for the time slot
- There is a shift associated with the time slot and it does not match the employee's shift

The utility indicates that the appointment does not match program preferences when there is a Program Preference associated with a time slot and the appointment does not include the specified program.

See Section 9.6 for a discussion of some standard triggers on appointment data. The Overbooking Check utility is reviewed in Section 9.15.

9.5 Expiration Date Basis Filing

9.5.1 Purpose

This utility changes the Expiration Date Basis as appropriate to ensure equitable handling of employee qualification statuses.

9.5.2 Overview

Lines EXP through the end of routine T2MSE perform this utility. The routine structure is shown in Figure 9-4. For each program in an appointment for which the exam is periodic and not a removal and the

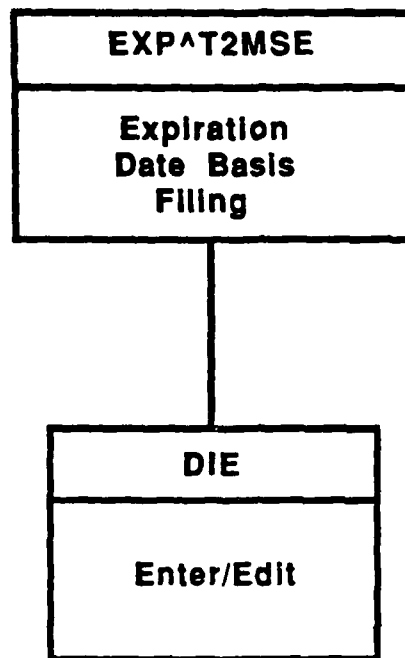


FIGURE 9-4
EXPIRATION DATE BASIS FILING UTILITY
ROUTINE STRUCTURE

employee is enrolled on a periodic basis with a specified Date Next Exam, the utility uses routine DIE to change the enrollment Expiration Date Basis to the appointment date, so long as the appointment month and year is the same as or later than the Date Next Exam month and year.

9.5.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY{#,3,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Read

9.5.4 Variables

This utility uses the following variables in addition to standard FileMan variables:

- ME: A pointer to a Medical Program file entry and the corresponding entry number in an employee Enrollment subfile and an appointment Medical Program Scheduled subfile
- MDS: An appointment Date Scheduled in FileMan format
- MP: An Employee file entry number
- MS: A Medical Appointment file entry number
- MY0: The zero node of an employee Enrollment subfile entry

9.6 Appointment Triggers and Edits

9.6.1 Purpose

These special features ensure that new appointment notices are generated when appointment specifications are changed, provide additional guidance and verification on appointment date and time validity, and adjust the automated scheduling time slot capacities as appropriate for user actions.

9.6.2 Overview

A change in the Date Scheduled, Time Scheduled, or Medical Program Scheduled subfile entries will trigger deletion of the appointment Print Date, resulting in automatic generation of a new appointment notice.

Deletion or filing of an Employee Scheduled subfile entry under a time slot in the Medical Appointment Scheduling file will trigger an adjustment to the time slot's Available Capacity. The Employee Scheduled subfile also has a special cross reference "AC" which facilitates the location of time slots associated with a Medical Appointment file entry.

The question mark response for both the Date Scheduled and Time Scheduled call the Clinic Schedule Display utility for clinics with automated scheduling. In addition, the Time Scheduled question mark response uses routine T2GTIM to provide general format guidance on times. For clinics with automated scheduling systems, the T2GED edit requires that the Date Scheduled and Time Scheduled must be valid entries in the Medical Appointment Scheduling file. The End of Appointment question mark response calls routine T2GTIM and, for a specific day in an automated scheduling system, lists valid end times.

9.6.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update

9.6.4 Variables

In addition to standard FileMan and utility variables, these special features use the following variables:

- MCE: The End of Day for a clinic Date Scheduled subfile entry in the Medical Appointment Scheduling file
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number

- MDS: The edited appointment Date Scheduled in FileMan format and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- MSC: The internal value of a clinic Which Scheduling Used field

9.6.5 Remarks

The Clinic Schedule Display utility is presented in Section 9.8.

9.7 Move To Be Scheduled To Appointment Utility

9.7.1 Purpose

This utility determines whether an employee's To Be Scheduled subfile entries can be accommodated by a clinic's automated scheduling template if put in a new or existing appointment. If so, the appointment is filed in the template for any necessary additional time slots, the To Be Scheduled subfile entries are filed in the appointment, and the To Be Scheduled subfile entries are deleted.

9.7.2 Overview

Lines ADD through EX1 in routine T2MTS perform this utility. The routine structure is shown in Figure 9-5. First, the utility calculates the total time needed for programs in the employee To Be Scheduled subfile that are not already in the appointment, the last time slot in which the appointment is already scheduled, and the new estimated end of appointment time. Routine DIE stuffs the End of Appointment. When there is user interaction, routine T2GED is called to prompt the user for adjustments to the end time. If the appointment is deleted at this stage, processing is ended.

Otherwise, the utility calculates the number of additional time slots needed and checks each time slot covered for availability and appropriate shift and programs preference. When a problem is found with the shift or availability, the Overlooking Check utility is called. If the user does not override the problem, processing is ended. If there is no problem or the user directs the system to complete the appointment, routine DIC is used to add the appointment to the new time slots, routines DIC and DIE add the programs to the appointment, and routine DIK deletes the programs from the employee To Be Scheduled subfile.

9.7.3 Globals Referenced

The following globals are read and/or updated:

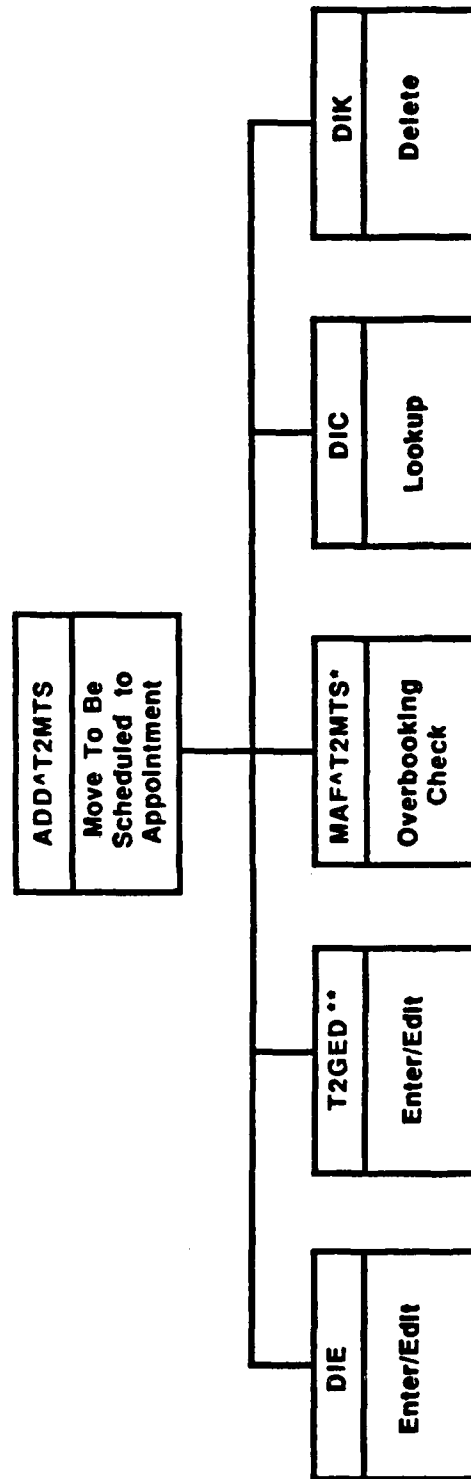


FIGURE 9-5
MOVE TO BE SCHEDULED TO APPOINTMENT
UTILITY ROUTINE STRUCTURE

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Update
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Update
Reason for Medical Visit/Exam	---	1128	↑MED(1128,	MES	Read
Employee	---	1004	↑EMPLOY(	ADMIN	Read

9.7.4 Variables

The following variables are used by this utility in addition to standard FileMan and utility variables:

- MAF: A zero value indicates no problem with an appointment; a one indicates that there is a problem
- MAL: The total time in minutes needed to give exams for the programs being added to an appointment
- MCA: Existence of this variable indicates that the utility should bypass user interaction
- MCE: The End of Day for a clinic Date Scheduled subfile entry in the Medical Appointment Scheduling file
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MDS: The appointment Date Scheduled in FileMan format and the corresponding Date Scheduled subfile entry number in the Medical Appointment Scheduling file
- ME: A pointer to a Medical Program file entry and the corresponding entry number in an appointment Medical Program Scheduled subfile and an employee To Be Scheduled subfile

- ML: The internal value for the length of a clinic's time slots or zero if the length is a day
- MP: An Employee file entry number
- MPF: A non-zero value indicates that program preferences did not match
- MS: A Medical Appointment file entry number and the corresponding Employee Scheduled subfile entry number in the Medical Appointment Scheduling file
- MSC: The internal value of a clinic Which Scheduling Used field
- MT: The number of consecutive time slots needed to cover the additional appointment time length
- MTBS: The data to be filed from an employee To Be Scheduled entry into an appointment Medical Program Scheduled subfile entry
- MTE: An appointment's edited End of Appointment
- MTO: An appointment's original End of Appointment
- MTS: (1) The last time slot in which the appointment being processed is already scheduled
(2) A Time Slot Start Time subfile entry and entry number in the Medical Appointment Scheduling file

9.7.5 Remarks

The estimated end of an appointment is based on the following rules:

- (1) If each time slot is a day long, it is the End of Day
- (2) If the total added time is zero and there is an original End of Appointment, it is the original End of Appointment
- (3) If the total added time is zero and this is a new appointment, it is the start time plus the length of one time slot
- (4) Otherwise, the end time is the number of time slots needed to cover the length of the appointment multiplied by the time slot length and added to the start time

The T2GED edit for the End of Appointment will only accept an existing time slot (or the End of Day) for an existing day where the time is no earlier than the last time slot in which the appointment is already scheduled.

This utility indicates there is a problem with adding programs to an appointment when one of the following is true for the last original time slot or any added time slots:

- There is no available capacity and the appointment is not already scheduled for the time slot
- There is a shift associated with the time slot and it does not match the employee's shift

The utility indicates that the appointment does not match program preferences when there is a Program Preference associated with either the last original time slot or any added time slots and neither the existing appointment nor the To Be Scheduled file include the specified program.

See Section 9.6 for a discussion of some standard triggers on appointment data. The Overbooking Check utility is reviewed in Section 9.15.

9.8 Clinic Schedule Display Utility

9.8.1 Purpose

This utility allows users to display either the overall capacities or available capacities in a clinic's Medical Appointment Scheduling file entry for selected dates and times.

9.8.2 Overview

Routine T2MAD performs this utility. The routine structure is presented in Figure 9-6. When the date and time range are not provided, the utility uses routine DIC to select a clinic when none is provided, routine %DT to select the start and stop dates, and routine T2GTIM to verify user entered start and stop times. Next, additional parameters are set if not already available and routine %ZIS is called to get the device characteristics. After verifying that there is data in the furnished date and time ranges, the selected data is displayed.

9.8.3 Globals Referenced

The following globals are read and/or updated:

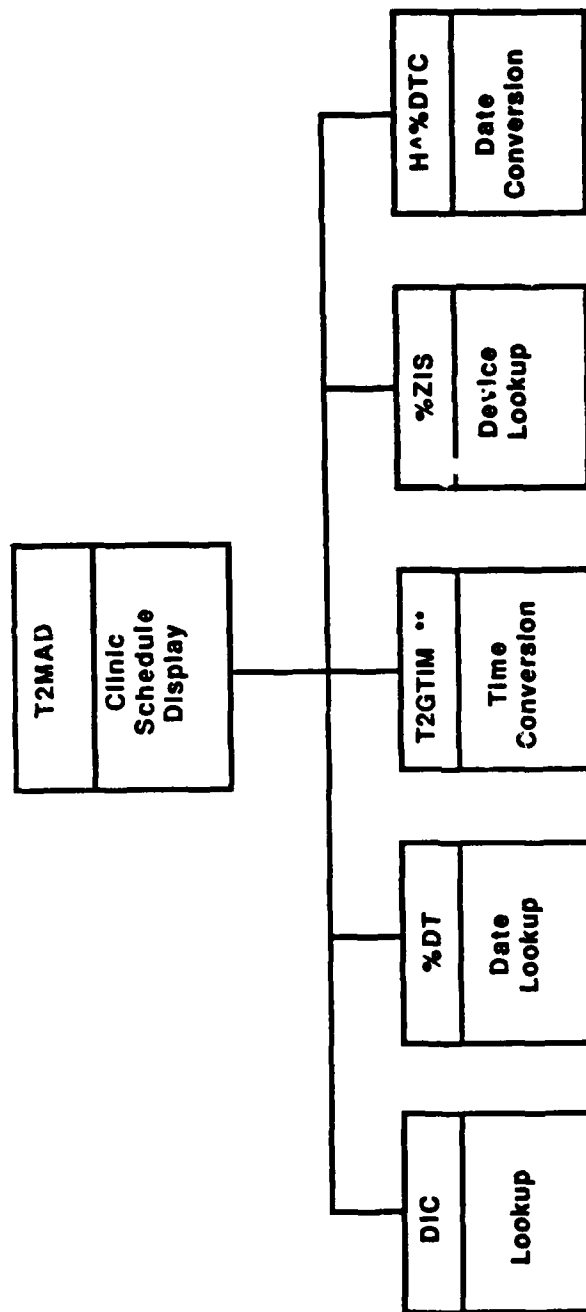


FIGURE 9-6
CLINIC SCHEDULE DISPLAY UTILITY
ROUTINE STRUCTURE

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical Appointment Scheduling	---	1144	↑MED(1144,	MES	Read

9.8.4 Variables

In addition to standard FileMan variables, routine T2MAD uses the following variables:

- MC: A non-zero value indicates the report is to list total capacities; otherwise, the report lists available capacities
- MCL: A pointer to a Clinic file entry and the corresponding Medical Appointment Scheduling file entry number
- MD: A Date Scheduled subfile entry and entry number in the Medical Appointment Scheduling file, in FileMan format
- MDI: The start date for the display, in FileMan format
- MDX: The end date for the display, in FileMan format
- MH: The hour from the first time slot being displayed
- MHX: The hour of the last time slot being displayed
- MNC: Existence of this variable indicates that the clinic variable was set by the utility and should be killed on exit
- MSC: The internal value of a clinic Which Scheduling Used field
- MTI: The start time for the display
- MTX: The stop time for the display

9.8.5 Remarks

In some cases, the utility is passed variable IOP, which forces printing on the device specified in variable IOP.

9.9 To Be Scheduled Filing Utility

9.9.1 Purpose

This utility handles filing or deletion of an employee To Be Scheduled subfile entry. There are two entry points depending on whether user interaction is appropriate.

9.9.2 Overview

This utility is performed by routine T2MET. Figure 9-7 illustrates the routine structure. The routine is entered at line T2MET when user interaction is needed. At that point, routine DIQ displays any existing entry, the user is warned of exposure exam needs, and the user is asked if the current entry is to be processed according to the passed parameters or is to remain. If the original entry is left as is, control is passed to line EXP.

Starting at line ENT, the passed parameters are processed. Routine DIK handles deletion of an existing entry. Routine DIC adds a new entry or selects an existing entry and then routine T2GED edits the entry.

When there is an existing entry that is not deleted by the utility, line EXP uses routine DIE to file the passed Data Exposure Reported into the To Be Scheduled subfile entry.

9.9.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Employee	--- To Be Scheduled (Program To Be Scheduled)	1088 1004.07	↑MED(1088, ↑EMPLOY(#,8,	MES MES	Read Update
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read

9.9.4 Variables

Routine T2MET uses the following variables in addition to standard FileMan variables:

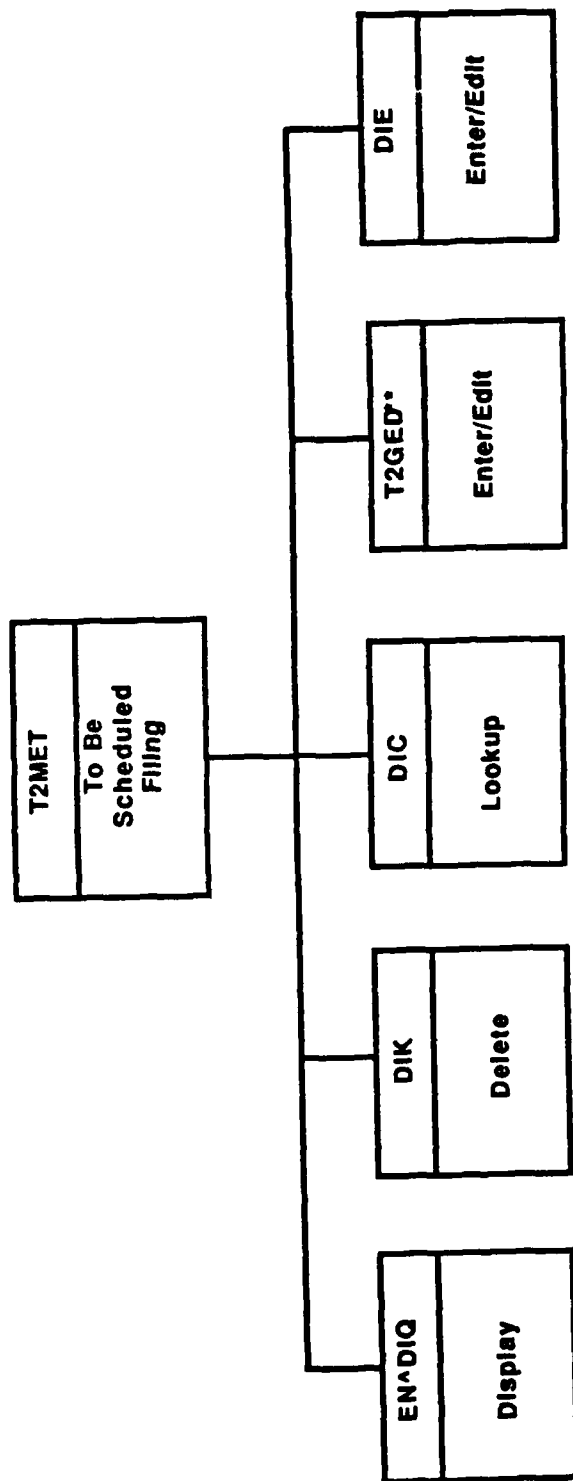


FIGURE 9-7
TO BE SCHEDULED FILING UTILITY
ROUTINE STRUCTURE

- ME: A pointer to a Medical Program file entry and the corresponding employee To Be Scheduled subfile entry number
- MP: An Employee file entry number
- MTBS: The data to be filed in an employee To Be Scheduled subfile entry

9.10 Enrollment History Filing Utility

9.10.1 Purpose

This utility files enrollment and removal data changes in the Effective Date subfile of the employee Enrollment subfile.

9.10.2 Overview

Routine T2MEH, lines PROG through EX+1, perform this utility. There are no routines called by this utility. There is no additional processing beyond setting the history node unless the action is a remove and replace of a history node where the old enrollment and removal dates are not the same. In that case, the old history node is deleted.

9.10.3 Globals Referenced

The following global is updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update

9.10.4 Variables

The following variables are used by this utility:

- MO: (1) The new zero node of an employee Enrollment subfile entry
(2) The zero node of the prior Effective Date subfile entry
- MDO: The effective date of the last removal, if this is an enrollment, or the last enrollment, if this is a removal
- MDT: The effective date of the transaction being filed in FileMan format

- ME: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry number
- MME: A pointer to a Medical Program file entry and the corresponding employee Enrollment subfile entry number
- MOD: The effective date of the last removal, if this is a removal, or the last enrollment, if this is an enrollment
- MP: An Employee file entry number
- MST: The current Enrollment Status
- MYO: The prior zero node of an employee Enrollment subfile entry

9.11 Appointment Notice Computed Fields

9.11.1 Purpose

These computed fields handle the setup of the Instructions word processing field with an unduplicated list of preexam instructions and its deletion, file the Print Date for the appointment, and list the appointment program data.

9.11.2 Overview

The notice is in a word processor field which uses several special Medical Appointment file computed fields. The Get Instructions computed field calls routine T2MRN1, which sets up the appointment Instructions word processing field with unduplicated instructions pertinent to the appointment programs, and files the current date in the Print Date field of the Medical Appointment file entry. Routine T2MRN1 does not call any routines. For each instruction entry associated with an appointment program, the text is added to the word processing field unless the instruction entry has already been processed for the appointment. The Delete Instructions computed field kills the Instructions word processor field. The List Programs computed field lists the name and code for all appointment programs.

9.11.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical	---	1134	↑MED(1134,	MES	Update
Appointment					
Preexam	---	1139	↑MED(1139,	MES	Read
Instructions					

9.11.4 Variables

Routine T2MRN1 uses the following variables in addition to standard FileMan variables:

- M1: A pointer to a Medical Program file entry and the corresponding appointment Medical Program Scheduled subfile entry number
- M2: A pointer to a Medical Program file entry and the corresponding appointment Medical Program Scheduled subfile entry number
- M3: A Preexam Instructions file entry number and the corresponding program Instructions subfile entry number
- M5: An entry number for a line from the Instructions Text word processing field
- MA: An entry number for a line of the appointment Instructions word processing field
- MTD: Today's date in FileMan format

9.12 Qualification Status Filing Utility

9.12.1 Purpose

This utility files entries in the employee Medical Qualification subfile.

9.12.2 Overview

Routine T2MEH, lines QUAL through EX2, performs this utility. The routine structure is shown in Figure 9-8. Routine DIC is called to file a new employee Medical Qualification subfile entry and, within that subfile, to file or look up a Qualification Date subfile entry. The status is filed using routine DIE. When the status being filed is "pending," there is enrollment data, and the action being filed is the result of an attended appointment, processing concludes using routine DIE in the following circumstances:

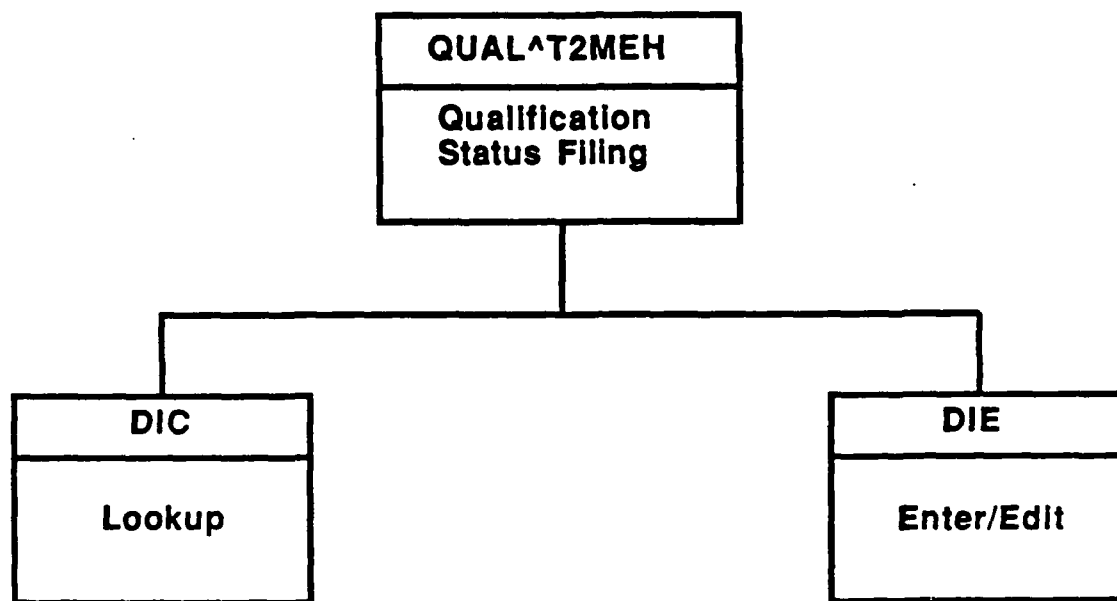


FIGURE 9-8
QUALIFICATION STATUS FILING UTILITY
ROUTINE STRUCTURE

- If the appointment exam is periodic and the appointment date is after the enrollment Date Last Periodic Exam, the appointment date will be filed in the Date Last Periodic Exam
- If the appointment date is after the enrollment Date Last Exam, the appointment date will be filed in the Date Last Exam

9.12.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Update
Employee	Medical Qualifica- tion	1004.08	↑EMPLOY(#,12,	MES	Update
Medical Appointment	---	1134	↑MED(1134,	MES	Read

9.12.4 Variables

The following variables are used by this utility in addition to standard FileMan variables:

- ME: A pointer to a Medical Program and the corresponding entry number in an employee Enrollment subfile and an employee Medical Qualification subfile
- MP: An Employee file entry number
- MQ: The internal value of the qualification status being filed
- MQD: The effective date, in FileMan format, of a qualification status
- MQX: The zero node of an employee Enrollment subfile entry

9.13 Print Program Line Computed Field

9.13.1 Purpose

This computed field structures a program output line for the Qualification Status Report. The line will be blank when the enrollment has been removed; otherwise, it will contain the employee's enrollment and qualification data for a program.

9.13.2 Overview

The computed field is performed by routine T2MQ1. Figure 9-9 presents the routine structure. When there is no employee Enrollment subfile entry or the enrollment has been removed, the output variable is set to null and processing is complete. Otherwise, the routine collects enrollment and qualification data, calculates the expiration date from the enrollment Expiration Date Basis and the clinic Qualification Grade Period using routine %DTC, and structures a print line by padding blanks as necessary between data ite . The print line is then moved to output variable X.

9.13.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Employee	Enrollment (Medical Program)	1004.05	↑EMPLOY(#,3,	MES	Read
Employee	Medical Qualifica- tion	1004.08	↑EMPLOY(#,12,	MES	Read
Agency Unit	---	1074	↑AGENCY(0,	ADMIN	Read

9.13.4 Variables

Routine T2MQ1 uses the following variables in addition to standard FileMan variables:

- M1: The program Qualification Date subfile entry number for the most recent entry in an employee Medical Qualification subfile; this is also the inverse of the Qualification Date
- MCHG: An output variable indicating that a qualification status was filed since the last full Qualification Status Report was printed for the agency
- MCOD: A program's Program Code
- MCOL: The column in which the next field is to be printed, used to pad blanks onto the print line variable
- MEND: The date in FileMan format on which the last full Qualification Status Report was printed for an agency

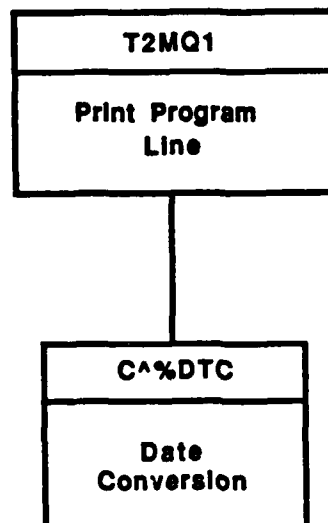


FIGURE 9-9
PRINT PROGRAM LINE COMPUTED FIELD
ROUTINE STRUCTURE

- MLAST: The most recent Qualification Date subfile entry in an employee Medical Qualification subfile for a program, in FileMan format
- MLIN: The print line for the program
- MNEXT: An employee program expiration date
- MPROG: A Medical Program file entry
- MQUAL: The Status in the most recent Qualification Date subfile entry in an employee Medical Qualification subfile for a program
- MTYP: An indicator of the employee Enrollment type

9.14 Medical Program Occupation Requirement Triggers

9.14.1 Purpose

This trigger facilitates the identification of changes made in program/occupation links.

9.14.2 Overview

This MUMPS trigger is activated when a program Occupation Requirement subfile entry is added or deleted. When an entry is added, one of the following is done:

- If the entry was not just deleted, an add flag is set
- If the entry was just deleted, the delete flag is killed

Similarly when an entry is deleted, one of the following happens:

- If the entry was not just added, a delete flag is set
- If the entry was just added, the add flag is killed

The net result is that once editing is done, an add flag will only exist if the entry has really been added, not if it has been deleted and readded. A similar statement is true for flagged deletions.

9.14.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program	---	1088	↑MED(1088,	MES	Read
Occupation	---	1001	↑DIZ(1001,	ADMIN	Read

9.14.4 Variables

The following variables are used by this trigger:

- MRA: An array with subscripts that are pointers to Occupation file entries and correspond to Occupation Requirement subfile entry numbers newly added to the subfile
- MRD: An array with subscripts that are pointers to Occupation file entries and correspond to Occupation Requirement subfile entry numbers newly deleted from the subfile

9.15 Overbooking Check Utility

9.15.1 Purpose

This utility enables an interactive user to review the time period covered by a scheduling conflict and indicate that the appointment should be booked anyway. When a problem is not overridden, the utility restores the original appointment end time.

9.15.2 Overview

Routine T2MTS, lines MAF through the end, performs this utility. The routine structure is illustrated in Figure 9-10. If there is no user interaction allowed, the problem is flagged and control is passed to line ST. Otherwise, the utility displays the date and time range covered by the proposed appointment using the Clinic Schedule Display utility and prompts the user for whether the appointment should be scheduled. When there is no user interaction or the user indicates the the appointment should not be booked, action will depend on whether the appointment existed before this scheduling attempt. If it did, the original end time is restored using routine DIE. If it is a new appointment, the appointment is deleted by routine DIK.

9.15.3 Globals Referenced

The following globals are read and/or updated:

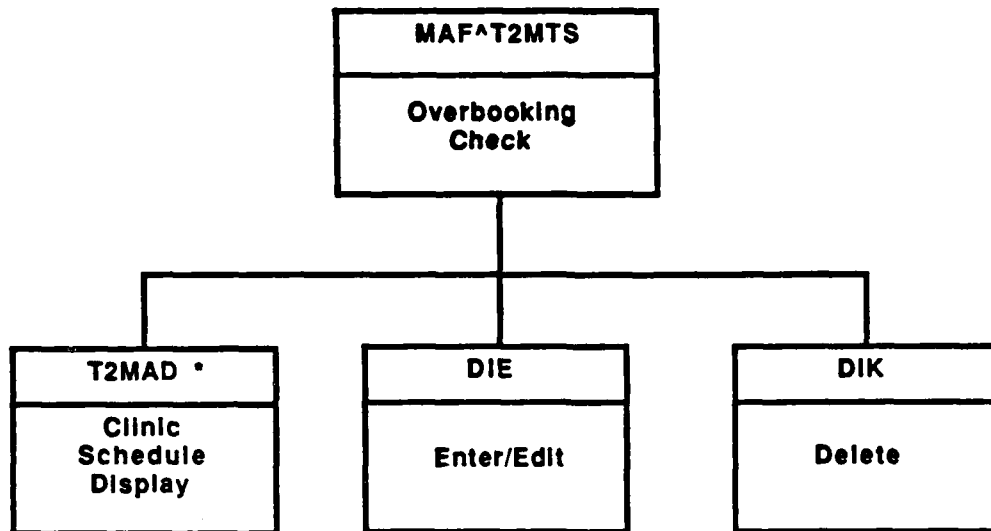


**FIGURE 9-10
OVERBOOKING CHECK UTILITY
ROUTINE STRUCTURE**

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Clinic	---	1138	↑MED(0,	MES	Read
Medical Program	---	1088	↑MED(1088,	MES	Read
Medical	---	1134	↑MED(1134,	MES	Update
Appointment					
Medical	---	1144	↑MED(1144,	MES	Read
Appointment					
Scheduling					

9.15.4 Variables

This utility uses the following variables in addition to standard FileMan variables:

- MAF: A zero value indicates no problem with an appointment; a one indicates that there is a problem
- MC: Indicates the display should list available capacities
- MCA: Existence of this variable indicates that the utility should bypass user interaction
- MDI: The start date for the display, in FileMan format
- MDS: An appointment Date Scheduled
- MDX: The end date for the display, in FileMan format
- MS: A Medical Appointment file entry number
- MTE: An appointment's End of Appointment time
- MTI: The start time for the display
- MTO: An appointment's original End of Appointment time
- MTS: An appointment's Time Scheduled
- MTX: The end time for the display

9.15.5 Remarks

The Clinic Schedule Display utility is discussed in Section 9.8.

9.16 Over MSAL Enrollment Filing Utility

9.16.1 Purpose

This utility files Enrollment or To Be Scheduled subfile entries for an employee who has been overexposed or exposed over the MSAL to a stressor that is linked to medical programs. The specific action taken depends on the employee's enrollment status, the exposure level, and the medical monitoring requested for the stressor. The utility is used by the EE module.

9.16.2 Overview

This utility is performed by routine T2MEXP. Figure 9-12 presents the routine structure. The routine first identifies the stressor. Next, it proceeds to line L if there was an overexposure or exits if there was no exposure over the MSAL. For exposures over the MSAL, the stressor medical monitoring recommendation is then identified.

Starting at line L, the employee Enrollment subfile is locked. Then, for each program linked to the stressor, several steps occur. If the employee is not currently enrolled in the program, a one-time enrollment is filed using the Enrollment Update utility. The Date Next Exam for the enrollment is the employee's next birthday when medical surveillance is recommended and the exposure was over the MSAL. When medical surveillance is required or there was an overexposure, the enrollment Date Next Exam is today, which also results in a To Be Scheduled subfile entry.

If the employee is currently enrolled, the Date Compiled from the Over MSAL Results file will be filed into the enrollment Date Exposure Reported field using routine DIE. Then, if medical surveillance is required or there was an overexposure, the To Be Scheduled Filing utility is called to enter the program in the employee To Be Scheduled subfile.

9.16.3 Globals Referenced

The following globals are read and/or updated:

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Medical Program Employee	--- Enrollment (Medical Program)	1088 1004.05	↑MED(1088, ↑EMPLOY(#,3,	MES MES	Read Update

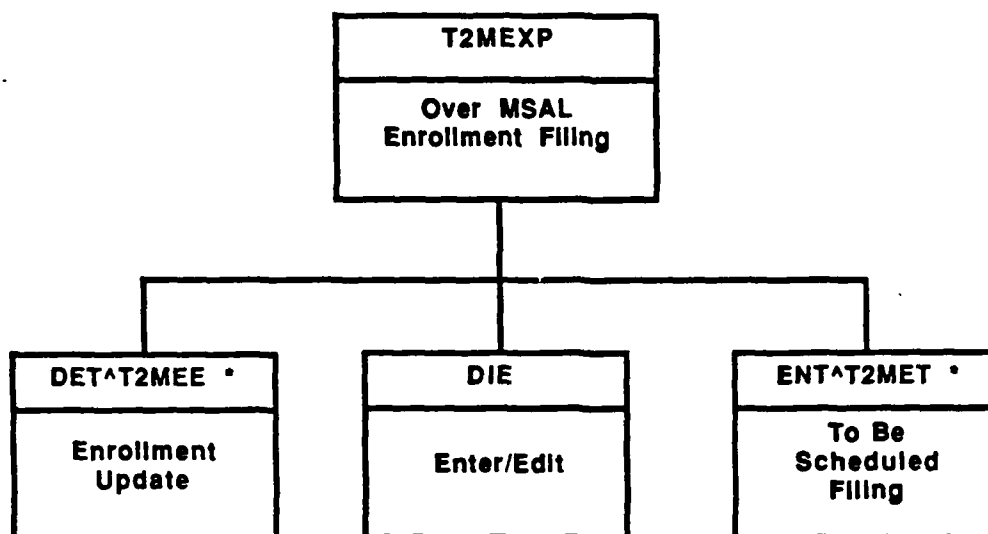


FIGURE 9-11
OVER MSAL ENROLLMENT FILING UTILITY
ROUTINE STRUCTURE

<u>File Name</u>	<u>Subfile Name</u>	<u>File Number</u>	<u>Global Reference</u>	<u>Module Owner</u>	<u>Read or Update</u>
Employee	To Be Scheduled (Program To Be Scheduled)	1004.07	↑EMPLOY(#,8,	MES	<u>Update</u>
Reason for Medical Visit/ Exam	---	1128	↑MED(1128,	MES	Read
Stressor	---	1083	↑STRESS(0,	ADMIN	Read
Over MSAL	---	1137	↑EXP(1137,	EE	Read
Results					
Counters	---	1141	↑EXP(1141,	EE	Read

9.16.4 Variables

In addition to standard FileMan variables, this utility uses the following variables:

- MBD: An employee's next birthday in FileMan format
- MDN: An employee's birthday in FileMan format
- ME: A pointer to a Medical Program file entry and the corresponding entry numbers in an employee Enrollment subfile and an employee To Be Scheduled subfile
- MEO: The zero node for an Over MSAL Results file entry
- MF: An array using as subscripts the valid reexamination frequencies
- MME: A variable used by the Enrollment Update utility to bypass user interaction
- MMR: The internal value of a stressor Medical Monitoring field; this variable is set to one for an overexposure
- MP: An Employee file entry number
- MSDR: The DR string to be used by the Enrollment Update utility
- MSTR: A Stressor file entry number

- MTBS: The data to be filed in an employee To Be Scheduled subfile entry
- MY0: The zero node of an employee Enrollment subfile entry

9.16.5 Remarks

This utility is used by the EE module Compile New Over MSALs option. The Enrollment Update utility is discussed in Section 9.2. The To Be Schedule Filing utility is reviewed in Section 9.9.

APPENDIX A
QUICK REFERENCE GUIDE FOR STANDARD OSHRKS MESSAGES

QUICK REFERENCE GUIDE FOR STANDARD OSHRKS MESSAGES

STANDARD OSHRKS MESSAGE	POSSIBLE CAUSES	ACTION TO TAKE
Error has occurred (ERROR) at 9:00 AM	Bug in software	Do not continue. Contact System Manager
?? (WITH BELL)	Field as entered contains: 1. Too many characters 2. Too few characters 3. Number too large 4. Number too small 5. Value not contained in set 6. Term not contained in "pointed to" file, and LAYGO is not allowed 7. Value that violates format check on data--requires certain characters, e.g., value must begin with "TMS--" 8. Date too early 9. Date too far in future, or too recent	Enter "?" and assess the problem with your data Ensure that the value you have entered is correct If correct value cannot be entered, contact System Manager or supervisor DO NOT CONTINUE
NO EDITING!!	The entry in this multiple cannot be edited	If you must change the value of this field, you must delete this entry and add the corrected value into the multiple
Required field missing, multiple entry not fully processed, field did not pass condition check. Enter 'C' or null to continue processing this entry or enter 'b' to delete this entry: C//	Field value as entered: 1. Was null when it is a required field in a multiple or in a file entry 2. Is not consistent with another value in the entry or already on file	1. Complete the entry of the missing data 2. Check the value of each field that may be in error Enter RETURN to be prompted for the missing value If your entry appears correct and you cannot determine the error the system is signaling, delete the entry and contact the System Manager or your supervisor

QUICK REFERENCE GUIDE FOR STANDARD OSHRKS MESSAGES
(CONTINUED)

STANDARD OSHRKS MESSAGE	POSSIBLE CAUSES	ACTION TO TAKE
Required field missing, multiple entry not fully processed, field did not pass condition check.	Field value as entered: 1. Was null when it is a required field in a multiple or in an entry 2. Is not consistent with another value in the entry or already on file	1. Complete the entry of the missing data 2. Check the value of each field that may be in error If your entry appears correct and you cannot determine the error the system is signaling, contact the System Manager or your supervisor
TYPE '^' TO STOP, OR CHOOSE 1-5:	More than one match was found, you have a choice of the items listed	If TYPE '^' TO STOP is shown, you may see more selections by entering RETURN You may choose one of the items from the list by entering the number displayed next to your selection
...OK? YES//	You have selected an entry from a "pointed to" file	If this is entry is the value you wish to enter, press RETURN, or enter "Y". If the value is not the one you wish, enter "N"

QUICK REFERENCE GUIDE FOR STANDARD OSHRKS SYSTEM MESSAGES
(CONCLUDED)

STANDARD OSHRKS MESSAGE	POSSIBLE CAUSES	ACTION TO TAKE
SURE YOU WANT TO DELETE THE ENTIRE (file/subfile)?	You have entered "q" to delete an entry in a file or multiple	If you are certain that you are deleting the entry you wish, enter "y", otherwise enter RETURN or "N"
ARE YOU ADDING (entry name) AS A NEW (file/subfile)?	The value entered does not match an entry in the file or subfile OSHRKS wants to create a new entry for your input value	Enter "y" to create a new entry or enter RETURN or "N" to avoid creating a new entry and to return to the original prompt
DO YOU WANT THE ENTIRE (file) LIST?	In response to your entry of "?" for a pointer field, OSHRKS asks if you want to look at the values in the "pointed to" file	Enter "y" to look at the values or enter RETURN or "N" to return to the original prompt
	You have exited OSHRKS	Logoff and follow your site's logon procedures

Appointment History Details
Appointment History Summary
Appointment List By Clinic
Appointment List By Shop
Appointment Notices & Medical
Exam Protocols
Appointment Notices Print
Automated Scheduling
Available Capacity Grid Display
Block Cancellation of Medical Appts.
Cancel Individual Medical Appointments
Cancel Medical Appointments
Cancellation Report
Clinic Table Enter/Edit
Cost Accounting Report
Create/Edit Appointment Notice Text
Direct Appointment Scheduling/Rescheduling
Discrepancy Audit for Prgm/Occ Changes
Discrepancy Audit of Personnel File
Display/Print Personnel Requiring Exams
Employee Medical Exam Protocol
Enroll Employees into Medical Programs
Enrollment into Medical Programs
Enter/Edit Employees To Be Scheduled
Exam Results Enter/Edit
Full Qualification Status Report
Generate Clinic Monthly Template
Location/Medical Program Display
Location/Medical Program Linkage
Manual Appointment Scheduling
Medical Audit Functions
Medical Exam List
Medical Exam Protocol For Program
Medical Exam Reports
Medical Exam Scheduling Module
Medical Program Table Enter/Edit
Medical Tables & Program/Tests Linkages
Medical Test Table Enter/Edit
Missed Appointments
Missed Appointments Report
Monthly Automated Scheduling
Monthly Schedule Kill and TBS refile
Occupation/Medical Program Display
Occupation/Medical Program Linkage
Operation/Medical Program Display
Operation/Medical Program Linkage

T2MRA1 APPOINTMENT HISTORY
T2MRA2 APPT HISTORY SUMMARY
T2MRA6 APPOINTMENT LIST
T2MRA7 APPT LIST BY SHOP
T2MOPN

T2MRN2 APPOINTMENT NOTICE
T2MOPS3
T2MAD CAPACITY GRID
T2MAB BLOCK CANCEL
T2MAC CANCEL APPOINTMENTS
T2MOPCC
T2MRA5 CANCELLED MEDICAL
T2MCE CLINIC ENTRY
T2MRA8 COST ACCOUNTING
T2MRN4 EDIT APPT NOTICE TEXT
T2MSE APPOINTMENT ENTRY
T2MRE3 PROG/OCC CHANGES AUDIT
T2MRE1 DISCREPANCY AUDIT
T2MRP1 EMP REQUIRING EXAMS
T2MRS1 EMPLOYEE PROTOCOL
T2MOPE
T2MEE ENROLLMENT ENTRY
T2MTE TO BE SCHEDULED ENTRY
T2MAR RESULTS ENTRY
T2MRQ2 AUTO QUAL STATUS
T2MMT CLINIC MONTHLY TEMPLATE
T2MPLOP LOCATION/PRGM DIS
T2MPLO LOCATION PRGM ENTRY
T2MOPS2
T2MOPA
T2MRS2 MEDICAL EXAM LIST
T2MRS3 PROGRAM PROTOCOL
T2MOPR
T2MOP MEDICAL EXAM SCHED
T2MPE PROGRAM ENTRY
T2MOPT1
T2MXE MEDICAL TEST ENTRY
T2MAM MISSED APPOINTMENTS
T2MRA4 MISSED MEDICAL
T2MMS MONTHLY SCHEDULING
T2MMK KILL SCHEDULE
T2MPOCP OCC/PRGM DIS
T2MPOC OCC/PRGM ENTRY
T2MPOPP OPER/PRGM DISPLAY
T2MPOP OPER/PRGM ENTRY

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OPTION TEXT

Performance Summary
Pre-exam Instructions Table Entry
Print Current Appointment Schedule
Program History
Program List per Operation by Shop
Qualification Audit
Qualification Status Report
Record Attended Appointments
Removal Report
Remove Employees from Medical Programs
Report of Date Next/Birth Month
Discrepancies
Reprint Appointment Notice
Schedule Appointments from To Be Scheduled
Schedule Audit
Schedule Medical Appointments
Setup Medical Tables
Setup/Display Medical Program Linkages
Stressor/Medical Program Display
Stressor/Medical Program Linkage

OPTION NAME

T2MRA3 PERFORMANCE SUMMARY
T2MIE PRE EXAM INSTRUCTIONS
T2MOPC
T2MRP2 PROGRAM HISTORY
T2MRO OPERATIONS REPORT
T2MEA QUALIFICATION AUDIT
T2MRQ1 QUALIFICATION STATUS
T2MAA ATTENDED APPOINTMENTS
T2MRR REMOVAL REPORT
T2MER REMOVAL ENTRY
T2MRE2 DATE NEXT DISCREPANCIES

T2MRN3 REPRINT APPT NOTICE
T2MTS APPOINTMENTS FROM TBS
T2MSA SCHEDULE AUDIT
T2MOPS1
T2MOPT2
T2MOPT3
T2MPSP STRESS/PRGM DISPLAY
T2MPS STRESSOR MED PRGM ENTRY

APPENDIX B
CROSS REFERENCE OF PRINT TEMPLATES TO OPTIONS

PRINT TEMPLATE

APPT HIST HEAD
APPT HIST HEAD-EMP
APPT HISTORY
APPT LIST

APPT LIST HEAD1
APPT LIST HEAD2
APPT LIST-DISP
BLANK APPT HEAD
BLANK APPT LIST
CLINIC PARAMETERS
EMP REQ EXAMS
EMP REQ EXAMS HEAD

EMP REQ EXAMS-DISP
EXPOSURES FOR MEDICAL PROTOCOL
LOC/MED
OCC
OP/MED
OPERATIONS REPORT
PROG/LOC
PROG/OCC
PROG/OPP
PROG/STR
PROGRAM HISTORY

QUAL STATUS AUTO HEAD
QUAL STATUS HEAD
QUAL STATUS HEAD-MED
QUAL STATUS-BOTH

QUAL STATUS-MED
QUAL STATUS-TRAIN
REMOVAL HDR
REMOVAL REPORT
T2SF600

OPTION

Appointment History Details
Appointment History Details
Appointment History Details
Appointment List By Clinic
Appointment List By Shop
Appointment List By Clinic
Appointment List By Shop
Block Cancellation of Medical Appts.
Monthly Automated Scheduling
Monthly Automated Scheduling
Monthly Automated Scheduling
Display/Print Personnel Requiring Exams
Display/Print Personnel Requiring Exams
Monthly Automated Scheduling
Schedule Appointments from To Be Scheduled
Employee Medical Exam Protocol
Location/Medical Program Display
Occupation/Medical Program Display
Operation/Medical Program Display
Program List per Operation by Shop
Location/Medical Program Display
Occupation/Medical Program Display
Operation/Medical Program Display
Stressor/Medical Program Display
Enrollment into Medical Programs
Remove Employees from Medical Programs
Program History
Full Qualification Status Report
Qualification Status Report
Qualification Status Report
Qualification Status Report
Full Qualification Status Report
Qualification Status Report
Qualification Status Report
Removal Report
Removal Report
Employee Medical Exam Protocol

APPENDIX C
CROSS REFERENCE OF SORT TEMPLATES TO OPTIONS

SORT TEMPLATE

BY EMP/DATE
BY OCC/SHOP/EMP/DATE
BY SHOP/EMP/DATE
EMP REQ EXAMS

NOTICE
OVER EXP
QUAL STATUS

QUAL STATUS-MED
REMOVAL REPORT
REPRINT
SHOP APPT BY DATE
SHOP APPT LIST

OPTION

Appointment History Details
Appointment History Details
Appointment History Details
Display/Print Personnel Requiring Exams
Monthly Automated Scheduling
Appointment Notices Print
Employee Medical Exam Protocol
Qualification Status Report
Full Qualification Status Report
Qualification Status Report
Removal Report
Reprint Appointment Notice
Monthly Automated Scheduling
Appointment List By Shop

APPENDIX D
CROSS REFERENCE OF ROUTINES TO OPTIONS

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

↑%DT

Block Cancellation of Medical Appts.
Available Capacity Grid Display
Appointment History Summary
Performance Summary
Missed Appointments Report
Cancellation Report
Appointment List By Clinic
Appointment List By Shop
Cost Accounting Report
Employee Medical Exam Protocol

↑%DTC

C↑%DTC

Qualification Audit
Qualification Audit
Print Program Line Computed Field
Discrepancy Audit of Personnel File
Schedule Audit

H↑%DTC

Available Capacity Grid Display
Generate Clinic Monthly Template

↑%ZIS

Available Capacity Grid Display
Clinic Table Enter/Edit
Monthly Schedule Kill and TBS refile
Monthly Automated Scheduling
Appointment History Summary
Performance Summary
Missed Appointments Report
Cancellation Report
Cost Accounting Report
Discrepancy Audit of Personnel File
Report of Date Next/Birth Month Discrepancies
Discrepancy Audit for Prgm/Occ Changes
Program List per Operation by Shop
Employee Medical Exam Protocol
Medical Exam List

↑DIC

Medical Exam Protocol For Program
Record Attended Appointments
Block Cancellation of Medical Appts.
Cancel Individual Medical Appointments
Available Capacity Grid Display
Missed Appointments
Exam Results Enter/Edit
Clinic Table Enter/Edit
Enrollment into Medical Programs
Qualification Status Filing Utility
Remove Employees from Medical Programs
To Be Scheduled Filing Utility

ROUTINE ENTRY POINT

↑DIC (Concluded)

IX↑DIC
WAIT↑DICD

CALLING UTILITY/OPTION

Pre-exam Instructions Table Entry
Monthly Schedule Kill and TBS refile
Monthly Automated Scheduling
Generate Clinic Monthly Template
Medical Program Table Enter/Edit
Location/Medical Program Linkage
Location/Medical Program Display
Occupation/Medical Program Linkage
Occupation/Medical Program Display
Operation/Medical Program Linkage
Operation/Medical Program Display
Stressor/Medical Program Linkage
Stressor/Medical Program Display
Appointment History Details
Appointment History Summary
Performance Summary
Missed Appointments Report
Cancellation Report
Appointment List By Clinic
Appointment List By Shop
Cost Accounting Report
Discrepancy Audit of Personnel File
Report of Date Next/Birth Month Discrepancies
Appointment Notices Print
Reprint Appointment Notice
Create/Edit Appointment Notice Text
Program List per Operation by Shop
Display/Print Personnel Requiring Exams
Qualification Status Report
Employee Medical Exam Protocol
Medical Exam Protocol For Program
Schedule Audit
Direct Appointment Scheduling/Rescheduling
Enter/Edit Employees To Be Scheduled
Schedule Appointments from To Be Scheduled
Medical Test Table Enter/Edit
Exam Results Enter/Edit
Block Cancellation of Medical Appts.
Clinic Table Enter/Edit
Medical Exam List
Medical Exam Protocol For Program
Direct Appointment Scheduling/Rescheduling

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

↑DIE

Record Attended Appointments
Block Cancellation of Medical Appts.
Cancel Individual Medical Appointments
Missed Appointments
Exam Results Enter/Edit
Enrollment into Medical Programs
Qualification Status Filing Utility
Remove Employees from Medical Programs
To Be Scheduled Filing Utility
Expiration Date Basis Filing Utility
Compile New Over MSALs
Monthly Schedule Kill and TBS refile
Monthly Automated Scheduling
Generate Clinic Monthly Template
Medical Program Table Enter/Edit
Location/Medical Program Linkage
Occupation/Medical Program Linkage
Operation/Medical Program Linkage
Stressor/Medical Program Linkage
Schedule Audit
Direct Appointment Scheduling/Rescheduling
Enter/Edit Employees To Be Scheduled
Schedule Appointments from To Be Scheduled

↑DIK

Record Attended Appointments
Block Cancellation of Medical Appts.
Cancel Individual Medical Appointments
Missed Appointments
Clinic Table Enter/Edit
To Be Scheduled Filing Utility
Monthly Automated Scheduling
Monthly Schedule Kill and TBS refile
Generate Clinic Monthly Template
Medical Program Table Enter/Edit
Location/Medical Program Linkage
Occupation/Medical Program Linkage
Operation/Medical Program Linkage
Stressor/Medical Program Linkage
Discrepancy Audit for Prgm/Occ Changes
Schedule Audit
Direct Appointment Scheduling/Rescheduling
Schedule Appointments from To Be Scheduled
Block Cancellation of Medical Appts.
Enrollment into Medical Programs
Remove Employees from Medical Programs

EN1↑DIP

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

EN1↑DIP (Concluded)

Monthly Automated Scheduling
Location/Medical Program Display
Occupation/Medical Program Display
Operation/Medical Program Display
Stressor/Medical Program Display
Appointment History Details
Appointment List by Clinic
Appointment List by Shop
Program List per Operation by Shop
Display/Print Personnel Requiring Exams
Program History
Qualification Status Report
Removal Report

EN↑DIQ

Employee Medical Exam Protocol
Schedule Appointments from To Be Scheduled
Exam Results Enter/Edit
Enrollment into Medical Programs
Removal Employees from Medical Programs
To Be Scheduled Filing Utility

ENT↑DIWF

Appointment Notices Print
Reprint Appointment Notice

↑T2GED

Record Attended Appointments
Block Cancellation of Medical Appts.
Cancel Individual Medical Appointments
Missed Appointments
Exam Results Enter/Edit
Clinic Table Enter/Edit
Enrollment into Medical Programs
Remove Employees from Medical Programs
To Be Scheduled Filing Utility
Pre-exam Instructions Table Entry
Generate Clinic Monthly Template
Medical Program Table Enter/Edit
Create/Edit Appointment Notice Text
Direct Appointment Scheduling/Rescheduling
Enter/Edit Employees to be Scheduled
Schedule Appointments from To Be Scheduled
Medical Test Table Enter/Edit

↑T2GL

Location/Medical Program Linkage
Location/Medical Program Display

EN1↑T2GL

Location/Medical Program Linkage

↑T2GGTASK

Monthly Schedule Kill and TBS refile
Monthly Automated Scheduling
Medical Program Table Enter/Edit
Occupation/Medical Program Linkage
Discrepancy Audit of Personnel File
Report of Date Next/Birth Month Discrepancies

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

↑T2GTIM	Block Cancellation of Medical Appts Available Capacity Grid Display Clinic Table Enter/Edit Generate Clinic Monthly Template Appointment List By Clinic Appointment List By Shop
↑T2MAA	Record Attended Appointments
↑T2MAB	Block Cancellation of Medical Appts.
↑T2MAC	Cancel Individual Medical Appointments
↑T2MAD	Clinic Schedule Display Utility Available Capacity Grid Display Monthly Schedule Kill and TBS Refile Monthly Automated Scheduling Generate Clinic Monthly Template Schedule Appointments from To Be Scheduled Appointment Triggers and Edits
↑T2MAM	Missed Appointments
↑T2MAR	Exam Results Enter/Edit
↑T2MCE	Clinic Table Enter/Edit
CKT↑T2MCE	Clinic Table Enter/Edit
↑T2MEA	Qualifications Audit
↑T2MEE	Enrollment into Medical Programs
DET↑T2MEE	Enrollment Update Utility Enter/Edit Employee Exam Results Enter/Edit Qualification Audit Compile New Over MSALs Discrepancy Audit of Personnel File Discrepancy Audit for Prgm/Occ Changes Enrollment into Medical Programs
PROG↑T2MEH	Enrollment History Filing Utility Enrollment into Medical Programs Remove Employees from Medical Programs Monthly Automated Scheduling
QUAL↑T2MEH	Qualification Status Filing Utility Record Attended Appointments Exam Results Enter/Edit Qualification Audit
↑T2MER	Remove Employees from Medical Programs
DET↑T2MER	Enrollment Removal Utility Terminate Employee Missed Appointments Exam Results Enter/Edit Discrepancy Audit for Prgm/Occ Changes Remove Employees from Medical Programs

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

↑T2MET	To Be Scheduled Filing Utility Cancel Individual Medical Appointments Missed Appointments Exam Results Enter/Edit Enrollment into Medical Programs Remove Employees from Medical Programs
ENT↑T2MET	To Be Scheduled Filing Utility Compile New Over MSALs Block Cancellation of Medical Appts. Enrollment into Medical Programs Remove Employees from Medical Programs Monthly Schedule Kill and TBS refile Monthly Automated Scheduling Monthly Automated Scheduling Compile New Over MSALs
EXP↑T2MET	Pre-exam Instructions Table Entry
↑T2MEXP	Monthly Automated Scheduling
↑T2MIE	Monthly Schedule Kill and TBS refile
↑T2MMA	Monthly Automated Scheduling
↑T2MMK	Generate Clinic Monthly Template
↑T2MMS	Medical Program Table Enter/Edit
↑T2MMT	Medical Program Table Enter/Edit
↑T2MPE	Location/Medical Program Linkage
CKF↑T2MPE	Location/Medical Program Display
↑T2MPLO	Occupation/Medical Program Linkage
↑T2MPLOP	Occupation/Medical Program Display
↑T2MPOC	Operation/Medical Program Linkage
↑T2MPOCP	Operation/Medical Program Display
↑T2MPOP	Stressor/Medical Program Linkage
↑T2MPOPP	Stressor/Medical Program Display
↑T2MPS	Print Program Line Computed Field
↑T2MPSP	Qualification Status Report
↑T2MQ1	Full Qualification Status Report
↑T2MRA1	Appointment History Details
↑T2MRA2	Appointment History Summary
↑T2MRA3	Performance Summary
↑T2MRA4	Missed Appointments Report
↑T2MRA5	Cancellation Report
↑T2MRA5A	Missed Appointments Report Cancellation Report
↑T2MRA6	Appointment List By Clinic
↑T2MRA7	Appointment List By Shop
↑T2MRA8	Cost Accounting Report
↑T2MRE1	Discrepancy Audit of Personnel File

ROUTINE ENTRY POINTCALLING UTILITY/OPTION

↑T2MRE2	Report of Date Next/Birth Month Discrepancies
↑T2MRE3	Discrepancy Audit for Prgm/Occ Changes
	Medical Program Table Enter/Edit
	Occupation/Medical Program Linkage
↑T2MRN1	Get Instructions Computed Field (Appointment Notice Computed Fields)
	Appointment Notices Print
	Reprint Appointment Notices
↑T2MRN2	Appointment Notices Print
↑T2MRN3	Reprint Appointment Notices
↑T2MRN4	Create/Edit Appointment Notice Text
↑T2MRO	Program List per Operation by Shop
↑T2MRP1	Display/Print Personnel Requiring Exams
↑T2MRP2	Program History
↑T2MRQ1	Qualification Status Report
↑T2MRR	Removal Report
↑T2MRS1	Employee Medical Exam Protocol
↑T2MRS1A	Employee Medical Exam Protocol
↑T2MRS1C	Employee Medical Exam Protocol
↑T2MRS2	Medical Exam List
↑T2MRS3	Medical Exam Protocol For Program
↑T2MRS3A	Medical Exam Protocol For Program
↑T2MSA	Schedule Audit
↑T2MSE	Direct Appointment Scheduling/Rescheduling
CH↑T2MSE	Automated Scheduling Appointment Check Utility
	Direct Appointment Scheduling/Rescheduling
	Cancel Individual Medical Appointments
	Missed Appointments
EXP↑T2MSE	Expiration Date Basis Filing Utility
	Cancel Individual Medical Appointments
	Missed Appointments
	Monthly Automated Scheduling
	Schedule Appointments from To Be Scheduled
↑T2MTE	Enter/Edit Employees To Be Scheduled
↑T2MTS	Schedule Appointments from To Be Scheduled
ADD↑T2MTS	Move To Be Scheduled to Appointment Utility
	Schedule Appointments from To Be Scheduled
	Monthly Automated Scheduling
MAF↑T2MTS	Overbooking Check Utility
	Move To Be Scheduled to Appointment Utility
	Automated Scheduling Appointment Check Utility

ROUTINE ENTRY POINT

CALLING UTILITY/OPTION

↑T2MXE

↑T2PL

Medical Test Table Enter/Edit

Record Attended Appointments

Cancel Individual Medical Appointments

Missed Appointments

Exam Results Enter/Edit

Enrollment into Medical Programs

Remove Employees from Medical Programs

Appointment History Details

Program History

Direct Appointment Scheduling/Rescheduling

✓ Enter/Edit Employees To Be Scheduled

Schedule Appointments from To Be Scheduled

Stressor/Medical Program Linkage

Stressor/Medical Program Display

ENT↑T2SL

↑T2SP