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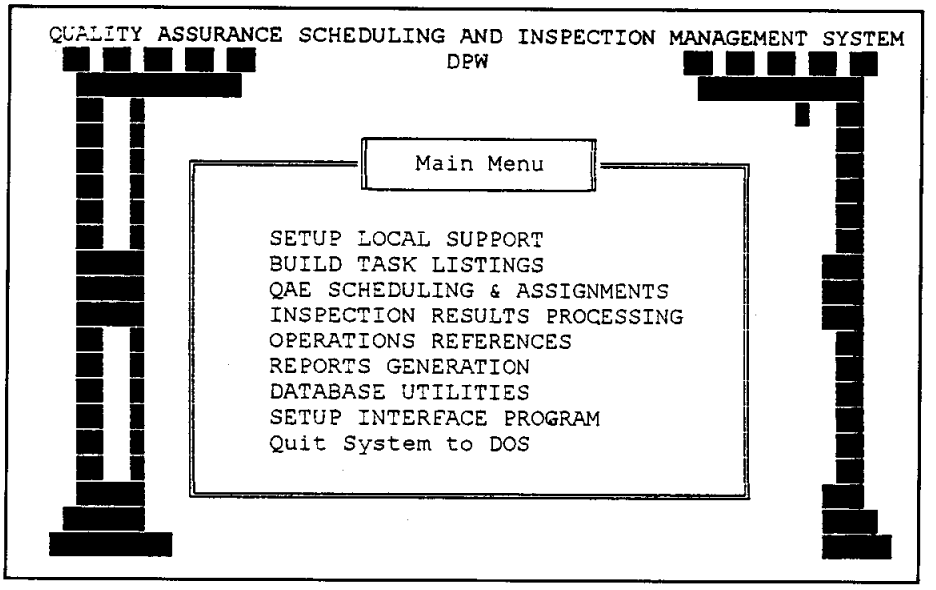
Quality Assurance Scheduling and Inspection Management System (QASIMS) Program Users Manual

by
Robert Hohenberg, James H. Johnson, and Yoon Lim



An automated management support system is needed for quality assurance (QA) enforcement of real property maintenance activities (RPMA) contracts under the Army-wide Commercial Activities (CA) Program. A QA Scheduling and Inspection Management System (QASIMS) was developed to satisfy this need. The QASIMS Program can help Army Directorates of Public Works (DPWs) effectively use available QA resources. Personal computers (PCs), efficient software, future data collection requirements, and QA requirements for CA contract management justify eliminating the manual performance of repetitive and simple deductive QA functions. A full use of the DPW data base resource for planning, scheduling, and managing QA at Army installations has been a primary consideration in the development of QASIMS. The assistance provided by QASIMS to QA management control and to QA Evaluator (QAE) inspection scheduling will allow more time for on-site inspection work and the direct monitoring of CA contracts. This user's manual describes the functional and performance requirements of QASIMS and provides the necessary guidance to the application of this program in a modern DPW environment.

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Foreword

This study was conducted for U.S. Army Center for Public Works (USACPW) under Military Interdepartmental Purchase Request (MIPR) No. . The technical monitor was Robert Hohenberg, CECPW-FM.

The work was performed by the Industrial Operations Division (UL-I) of the Utilities and Industrial Operations Laboratory (UL), U.S. Army Construction Engineering Research Laboratories (USACERL). The USACERL principal investigator was James H. Johnson. Walter J. Mikucki is Chief, CECER-UL-I; and John T. Bandy is Operations Chief, CECER-UL.

COL James T. Scott is Commander and Dr. Michael J. O'Connor is Director of USACERL.

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1: INTRODUCTION

1-1 BACKGROUND.

An automated management support system is needed for quality assurance (QA) enforcement of real property maintenance activities (RPMA) contracts under the Army-wide Commercial Activities (CA) Program. A QA Scheduling and Inspection Management System (QASIMS) has been developed to satisfy this need.

Responsibilities of the Directorate of Public Works (DPW) for the quality assurance of RPMA contracting at Army installations are identified in the CA Program Requirements of AR 5-20. Actual QA practices have evolved according to local interpretations and adaptations of this regulation.

The QASIMS Program can help the DPW effectively use available QA resources. Personal computers (PCs), efficient software, future data collection requirements, and QA requirements for CA contract management justify eliminating the manual performance of repetitive and simple deductive QA functions. A full use of the DPW data base resource for planning, scheduling, and managing QA at Army installations has been a primary consideration in the development of QASIMS. The assistance provided by QASIMS to QA management control and to QA Evaluator (QAE) inspection scheduling will allow more time for on-site inspection work and the direct monitoring of CA contracts.

1-2 PURPOSE.

This user's manual describes the functional and performance requirements of QASIMS and provides the necessary guidance to the application of this program in a modern DPW environment.

1-3 THE QASIMS APPROACH.

The contracting of RPMA at a U.S. Army installation must be both economical and effective to be within the objectives of the CA program. A QA program must verify that the RPMA for an installation, in fact, is performed at the level that is contracted. Automating the scheduling and implementation of QA inspections in a CA context should be convenient, productive and cost-effective. Furthermore, an automated system should be accommodated within the framework of available hardware, existing procedures, and required communication interfaces.

a. Defining QA Management Problems.

Quality assurance of CA contractor performance requires a representative inspection of the contractor's work that is not coercive to the contractor and assures the Government of received services for money paid. The QA management problems encountered and the solutions provided by QASIMS follow:

(1) Responsibilities/constraints.

Problem: Responsibility for the QA is under the DPW/COR, who often operate under the constraints of limited resources and heavy workloads; hence, the sampling of contractor output is a current necessity for QA management. However, it should be noted that varying local conditions, the scarcity of knowledgeable inspectors, and the difference between contractors can cause a varying QA emphasis among Army installations.

Solution: Standardization between Army installations of the approaches used in automating QA procedures will more readily permit the creation of regulations that will enhance the procedures using automated features.

(2) Random sampling.

Problem: The statistical justification for contract price deductions is that the QA inspection is made from a random sample. In practice, sampling for a Service Orders or other services may occur in a variety of approaches; it can be on a basis of random job-list sampling, a random facility/location sampling, a random-day sampling for each contractor's shop, or no sampling for 100% inspection requirements. In developing an inspection sampling strategy, QA management actually considers: their own personnel limitations, the contractor's performance history, and their specific RPMA contract.

Solution: Sampling of completed work orders by random-sequence selection but with adjustments for neglected categories or locations.

(3) Scheduling.

Problem: QA inspections, at present, are often performed from inspection schedules based on sampling of last months completed jobs. This time lag between job completion and its inspection can have disadvantages. Local corrections or other uncontrolled actions could occur or damage contractor maintenance and repair performance during this period of time.

Solution: Dynamic scheduling from a sampling list of expected job completions to allow close-order planning between inspections and on-time job completions.

(4) QAE Assignments.

Problem: Currently, manual work-planning for a day is directed by QA management or is individually performed by each QAE. This disrupts the progress of the inspection-performance day and is time consuming for craftsmen not trained in scheduling procedures. In

addition, manually performed work planning by each QAE results in lost performance time, and may not be consistent with the other QAE's or the preferences of QA management.

Solution: Automated QAE assignment procedures could be controllable by QA management, following all inspection-day planning logic, and providing more timely and better schedules.

(5) Checklist handling.

Problem: With the existing system, voluminous checklist records are manually reviewed, approved and filed for future reference.

Solution: The checklist records handling that have caused storage and access problems in the past can be eliminated by an automated checklist reading and review/evaluation/reporting system. Automated support to QA operations will simplify, speed-up, and functionally improve current QA practices as discussed above.

b. Defining Existing and Potential QA Methods.

Existing methods (prior to QASIMS) for implementing QA at Army installations range from simple manual approaches to partially automated systems with scheduling, forms control, database management software.

(1) Automation of Existing QA Activities.

Current Army installation QA activities that are appropriate for immediate automation include:

(a) Sampling of Work Orders (especially SOs).

QA sampling of contracted M&R job completions may come in a variety of practices. Traditionally, QA management has considered personnel limitations

as well as a contractor's performance history in developing a sampling strategy. The QASIMS approach is to sample a job listing of a particular order type, the list being obtained from either an actual or projected (estimated occurrence) schedule.

(b) Scheduling/assignment of QA job inspections.

Self-scheduling by the QAE of management assigned tasks is replaced by a QASIMS dynamic scheduling system, which provides all daily QAE schedules plus the QAE Assignment Cards at the beginning of the workday.

(2) New Capabilities under QASIMS.

In addition to automating activities associated with current QA scheduling functions, QASIMS will expand or provide new capabilities to QA operations. This will include daily inspection assignment printouts for each active inspector; accepting and processing the checklist data at the close of the day; generating reports of any deficiency records for contractor(s); and providing support for QA management control activities of the COR.

(a) QA Procedural Improvements through QASIMS.

QASIMS is compatible with many hand-held real-time recording inspection aids now becoming available commercially. These include:

1. QASIMS With A Barcoding Capability.

A Micro-Wand System with 128K Memory Barcode Reader with all supplied PC interface and power attachments.

2. Pen Based Computer (future option).

An electronic form retriever and hand written

digitizer for transcribing to the QASIMS Database.

(b) A Summary of Impacts.

Deployment of the QASIMS Program in DPW centers will impact:

1. Operational practices. Overall operational steps remain unchanged; however, QA time will be spent more productively on inspection performance but with improved documentation and better management control.

2. True Sampling. The risk of litigation over contractor deficiency charges are reduced when the sampling is automated and demonstrably random.

3. Dynamic Scheduling.

4. Repetitive QA management and administrative duties.

5. Automated Contractor Scoring.

6. Reports Generation. Well defined reports based on QA requirements will provide efficient data for evaluation of the contractor's performance.

c. <u>The QASIMS Development</u>.

The QASIMS concept was developed over several years by USACERL and USACPW. It has been evaluated, tested, and expanded from field applications experience and from better defined QA management requirements. QASIMS is a complete menu-guided software package which supports or interfaces with five DPW service areas. These service areas are identified as follows:

(1) Work Reception.

Maintenance and repair (M&R) jobs under service

order (SO) or individual job order (IJO) classifications are often processed through a Work Reception Center (WRC). According to the RPMA contract of the particular Army installation, the WRC may be under the DPW or the RPMA Contractor. In any case, jobs received at the WRC or its equivalent are verified for accuracy and then entered into the Army-wide common database of the Integrated Facilities System for Mini/ Micro Computers (IFS-M).

(2) QA Management Control.

QASIMS was developed so that all processes are under the control of local QA management. Notably, inspection *demand* and inspector *supply* can be reviewed in detail and revised/edited prior to and after scheduling/assignment runs.

(3) QA Operations.

QASIMS saves QA management time by aiding the demand/ supply review process and by stimulating the ingenuity of this management in sampling and scheduling inspections necessary to monitor RPMA contracts effectively. In addition, QASIMS supports the day-to-day planning of inspection jobs by assigning Quality Assurance Evaluators (QAE's); and then recording, analyzing, and storing the results of the maintenance and repair (M&R) inspections; followed by the outputting of these records or their summarizations on request by the user.

(4) QAE Support.

QASIMS will accommodate a range of QAE methods and inspection recording techniques. It will generate barcoded procedures and checklists of specific QA inspections for clip-board wanding by the QAE at the inspection site through use of an intelligent barcode reader. At the end of the inspection day or week the data can be loaded directly into the QASIMS database under program monitoring and direction.

(5) COR Review/Approvals.

QASIMS will identify and document unsatisfactory records from the QAE's for review and considered acceptable(approval) by the Contracting Officer's Representative(COR). Generation of failure statistics, contract deficiency, and other reports are facilitated by QASIMS.

d. <u>QA Study Documentation</u>

The QASIMS Program Users Manual constitutes the documentation for Army-wide use of QASIMS.

(1) Interpreting the Manual.

The users manual is provided as a primary source for the usage and application of the QASIMS Program, and includes:

CHAPTER 1: Introduction.

CHAPTER 2: The scope of QASIMS operations is summarized in the QASIMS Overview of CHAPTER 2, and provides descriptive performance characteristics and preferred operating goals;

CHAPTER 3: Upon receipt of the QASIMS Program package, it must be installed and tested as described in CHAPTER 3.

CHAPTER 4: Needed user expertise (basic user

instruction) in turning-on/operating QASIMS is described in CHAPTER 4.

CHAPTER 5: Instructing the user in the fundamentals of program operations and a review of all significant QASIMS menus and screens are provided in CHAPTER 5. A summary of just the graphics is provided in Appendix A.

CHAPTER 6: The more pertinent application conclusions are provided in CHAPTER 6.

1-6 TERMS AND ABBREVIATIONS.

A syntax of terms and abbreviations is furnished in Appendix A-1.

1-7 PROJECT REFERENCES.

Documents listed in Appendix A-2 are references applicable to this program.

2: QASIMS OVERVIEW

QASIMS is designed to assist maintenance management by automating QA inspection management and performance.

2-1 THE SCOPE OF QASIMS OPERATIONS

The QASIMS Program is both effective and easily implemented. It will meet the scheduling, procedural, and reporting needs of Quality Assurance Evaluators (QAEs), and will strengthen the management activities of the Contracting Officer's Representative (COR).

QASIMS is designed to be readily adapted into local QA procedures. It is to be supported by existing microcomputer hardware at most installations; it should be integrated with minimal disruption to on-going work; and it is operational at the skill level of existing personnel.

a. The Operations Interfaces.

QASIMS allows flexibility in its support of QAE performance. Basic program requirements and coding is developed to include the QA input/output (I/O) data which is needed and to allow a controlled interface access by participating parties. Thus, the iterative development of QA scheduling from M&R planning results in the inspection assignment sheets to be supplied on a daily or weekly basis to all active QAE's. After the QAE inspections are made, checklist inputs are processed and summarized by QASIMS for QAE/COR review. The COR evaluated results are then supplied to QASIMS for record-keeping and the automatic updating of contractor failure records. Many Special Reports can be generated from the data, when requested by the user.

b. QASIMS Features.

The general attributes and program functions selected for QASIMS were considered necessary to good QA Management support

systems. The attributes and functions of QASIMS are summarized as follows:

(1) General Attributes.

QA management needs for the QASIMS Program are as follows:

(a) A QASIMS Program that is functionally transparent, reliable, and adaptable to local procedures. A software package that will:

1. Provide dynamic scheduling response to frequent QA planning changes.

2. Improve QA effectiveness and impact contractor responsiveness.

(b) A convenient source of automated support in order to:

1. Reduce the non-technical and "paper work" duties of the QA forces to allow more time for verifying an RPMA contractor's performance;

2. Maintain statistical/historical RPMA records of the level (rates) of facility component or equipment maintenance, QA records of personnel workloads, and CA records of contractor interactions and job performance; organizing these records so that they may be used for systems and contractor performance evaluation.

(c) A database system that provides current information on job status and QA trends.

(2) QASIMS Basic Functions.

QASIMS automates the QA operations that can simplify or resolve the problems of QA management. QASIMS will:

(a) Perform a variety of statistical job-sampling tasks that can perform a random sampling acceptable for the inspection enforcement of contracted maintenance and repair.

(b) Generate an integrated daily/weekly QA schedule at interim or finalized levels for varying resolutions.

(c) Make QAE inspection assignments directly from these schedules.

(d) Read and store different forms of QAE inspection checklist results, reissuing (echoing) these results on screen or hard-copy reports.

(e) Allow a "hold" or "release" status to be applied to check-list results, permitting follow-on call-ups and review of these records by the COR.

(f) Generate contract deficiency reports and other similarly formatted DPW/COR reports on demand.

(g) Provide a Computer/User interface that is concise, understandable and efficient, without visual or interactive defects that can cause misunderstandings or loss of confidence by the User in the software system.

c. <u>QASIMS Menu/Screen Formatting</u>.

(1) Main Menu

The Main Menu of QASIMS contains the following operations and program utilities entries:

A SETUP INSPECTION DATA
B BUILD COMPLETED TASK LISTING DATA
C SCHEDULING OPERATIONS
D (ACCEPTANCE OF) INSPECTION RESULTS
E OPERATIONS REFERENCES (& STANDARDS)
F REPORTS GENERATION
G DATABASE UTILITIES
H SETUP INTERFACE (HOOKUP GUIDANCE)

(2) Operations Menu to Entry Screen Flow.

The content of the (Work) Operations Access and Utility Menus, and the data-input screens which are called directly from the Main Menu are as shown in the outline of a QASIMS operations flow in Table 1.

TABLE 1

QASIMS Operations and Program Utility Access Paths
(THIS TABLE HAS BEEN REPLACED BY A NEW INSERT.)

(A) **Setup Local Support:**

0	Return to Main Menu			
1	Update Inspector/User Status	---> Submenu A-1:	>A-1.1:	Insp.Readiness
			>A-1.2:	User Program Access
2	Link Facilities and Equipment	---> Screen A-2:		
3	Specify Contracts/ QA Plans	---> Submenu A-3:	>A-3.1:	Link Contracts & CLINs
			>A-3.2:	Edit QA Plans
4	Specify PM Unit Check Points	---> Screen A-4:		

(B) **Build task Listings:**

0	Return to Main Menu			
1	Download completed Work Orders	---> Submenu B-1:	>B-1.1:	From IFS-M
			>B-1.2:	From Diskette
			>B-1.3:	Manual Input
2	View/Edit Active Completion Tasks under:			
	a. Individual Job Order (IJO)	---> Screen B-2.1:	Completed IJO List	
	b. Reinspection Tasks	---> Screen B-2.1:	Reinspection List	
3	Integrate SOO/PM jobs into QA Inspection Planning.	---> Screen B-3:		
4	Build/Edit Inspection Task Population under:			
	a. First Time IJO Inspection	---> Screen B-4.1:		
	b. Reinspection	---> Screen B-4.2:		
	c. Active Temporary Population File	---> Screen B-4.3:		
5	Build a Total Population File	---> Screen B-5:		

(C) **Sampling, Inspection Scheduling, and Assignments Operations:**

0	Return to Main Menu		
1	Generate Time-Period Samples	---> Screen C-1:	Create Sample File
2	Edit sampled First-Time inspection task	---> Screen C-2:	Edit Sample (First-Time)
3	Edit sampled Reinspection task	---> Screen C-3:	Edit Sample (Reinspection)
4	Generate QAE Assignments	---> Screen C-4:	Generates barcoded assignments

(D) **Inspection Results**:

0 Return to Main Menu

1 UPLOAD Data from Barcode Reader to PC ---> Screen D-1: Instruction to upload data

2 Review (Add/Edit/Delete) Inspection Results ---> Screen D-2: Edit Inspection results

3 Validation of Customer Complaints ---> Screen D-3: Customer Complaints

(E) **Operations references**

0 Return to Main Menu

1 QAE Inspectors' Listings ---> Submenu E-1: > Screen E-1.1 Inspector's List
> Screen E-1.2 Availability

2 Facilities Configuration ---> Screen E-2:

3 QA Barcoded List ---> Submenu E-3.1 > Screen E-3.1.1: Print Facility List
> Screen E-3.1.2: Print QA Plan List
> Screen E-3.1.3: Print PM Guide List

(F) **Reports Generation**

0 Return to Main Menu

1 Inspection Task Summaries ---> Submenu F-1: > Screen F-1.1: Population Report
> Screen F-1.2: Sample List Report

2 QA-Plan Result Report ---> Submenu F-2: > Screen F-2.1: Inspection Result List
> Screen F-2.2: Reinspection Result List
> Screen F-2.3: ReinspectionStatusReport
> Screen F-2.4: Failed Inspections List
> Screen F-2.5: CustomerComplaintList

3 IJO Inspection Result report ---> Same as QA-Plan Result Report above.

4 QA-Plan Contract Deficiency Evaluation ---> Screen F-3.1

5 IJO Contract Deficiency Evaluation ---> Same as QA-Plan Contract Deficiency Report

(G) **Database Utilities**:

0	Return to Main Menu		
1	Reindex/Pack Database	---> Screen G-1:	Reindex Confirmation Screen
2	Data Deletion	---> Submenu G-2:	> Screen G-2.1: Delete Inspection Data > Screen G-2.2: Delete Completed IJO Data > Screen G-2.3: Delete Customer Complaint
3	Download Tables	---> Submenu G-3:	> Download associated tables from IFS-M > Download associated tables from Diskette
4	Edit Special Code	---> Submenu G-4:	> Edit RPF Installation Code > Edit Shop Code > Edit Task Code

(H) **Interface Program Setup Guidance Menu**:

0	Return to Main Menu		
1	Installation ID:	---> H-1:	Installation Entry Screen
2	Report Printing Port:	---> H-2:	Printer Port/type Selection Screen for general report
3	Barcode Printing Port:	---> H-3:	Printer Port/type Selection Screen for barcoded report
4	MODEM Port	---> H-4:	Serial Port for Modem to link to IFS-M
5	Barcode Wand Reader Port:	---> H-5:	Serial port used to upload data to PC

3. INSTALLING AND TESTING INSTRUCTIONS

Installing and testing the QASIMS Program is not difficult. However, if the users are uncertain about this procedure, they should request assistance from the local systems supervisor or data processing coordinator. Detailed operations instructions for the average user are provided in Chapters 4 and 5.

3-1 PRELIMINARY STEPS

The QASIMS Program runs on IBM AT compatible computer and requires minimal training for the management user, since QASIMS provides ample guidance with a series of menus and prompts.

A coordinated plan for integrating the most needed QASIMS Services and Products into local procedures and methods will provide direction and enhance the hands-on training and working-level support needed for implementing the program. The services and products of the Program should be generated in practice sessions for building user confidence and making procedural adaptations to accommodate the system.

A program capability of special interest to the new user is that QASIMS will assist the user in off-line practice or developmental sessions including preliminary QA scheduling and inspection control sessions.

3-2 INSTALLATION AND STARTUP

If you are installing the QASIMS Program for the *first time*, please carefully read and follow the instructions given in this chapter. If your familiarity with PCs is minimal and you do not understand something in this chapter, an inquiry of your local data processing coordinator may help. If questions remain, if a QASIMS Program operating problem arises, or if you have any suggestions concerning this program, please call

Mr. Bob Hohenberg, at 328-6227(DSN) or 703-428-6227 (Commercial).

a. <u>QASIMS Operations Hardware and Software Requirements</u>.

(1) Basic Requirements. The basic QASIMS Program requires the following:

COMPUTER SYSTEM:

A 386 PC Microcomputer
400 KB Available Memory
10 Mega Bytes of Available Hard Disk Space.
Color or monochrome monitor
MS-DOS or PC-DOS (Version 3.3 or higher)

SOFTWARE:

VistaCom: A commercial communication software package permitting access to IFS-M (Free for government Use).

PRINTER:

IBM or Epson-compatible 9-pin dot matrix printer or HP Laser Jet Printer (Preferred)

(2) Recommended PC Settings.

(a) To verify that Recommended Operations Values are Set on the PC, access the CONFIG.SYS file to see if the value for FILES is set at 80 or greater.

(b) In the AUTOEXEC.BAT file, the line "C:\DOS\SHARE.EXE /f:5100" must be included.

(c) If the user is using a DOS 6.0 or later version and using "emm386.exe" as a memory manager, the "NOVCPI" switch has to be set:
For example: DEVICE=C:\DOS\EMM386.EXE NOEMS NOVCPI.

b. Installing the QASIMS Database.

The operations database, such as contractual requirements, facilities and equipment to be inspected, must be developed from batch loadings of IFS-M tables if available. Entries of individual task records can be entered into the program, but this is too laborious and time consuming for all but editing purposes. Batch loadings are used when all data are ready for incorporation into the database (total loading), while individual entries are useful for an incremental loading process as operations data are developed.

c. QASIMS Program Installation and Adjustments

Installing System Files on the PC Hard Disk. The QASIMS Program is written in Clipper version 5.3, and distributed in a compiled version. The QASIMS Program should be installed on a PC hard disk, as configured in Paragraph 3.2.

Ensure that space is available for QASIMS (Minimum 10 Mega Bytes) on your hard disk. The automatic INSTALLATION procedure is provided on a supplemental diskette to the QASIMS Program. Insert the QASIMS distribution diskette into the appropriate diskette drive and type "A" or "B" to change the default drive to where the QASIMS diskette was inserted. Upon the DOS prompt, type "INSTALL" to initiate the installation process. Follow the instructions on the screen, and the QASIMS will be installed automatically.

3-3 ACCESS AND ADJUSTMENT NEEDS OF QASIMS

Having installed the QASIMS Program, you are now ready to adjust the system to local needs/environment and to begin your first practice sessions. This section will discuss how to start-up/quit the system; how to batch load job-completion data; how enter the system, move between the menus, issue passwords, enter "permanent" type information; how to interface with the Microwand IIIe Barcode Reader (both a scan device and a small computer); and, in general, derive the fullest use of the QASIMS Program.

a. Starting QASIMS (Access to the Program).

To enter the QASIMS Program, user has to go to the directory where QASIMS has been installed. If QASIMS is installed at `C:\QASIMS' directory, proceed as follows:

(1) From the **C:\>** prompt on the PC Monitor, the user should go to the directory :

(a) Type: CD\QASIMS

(b) Press the Enter Key and again type QASIMS for: **C:\QASIMS>**QASIMS

(c) Now press Enter key to implement Program start.

(d) The QASIMS Password Screen of Figure 3-1 appears.

b. Passwords and Security.

In order to access the QASIMS Program, a valid password must be entered when the Screen of Figure 3-1 appears. For the newly installed system, the software supervisor can enter the QASIMS Program by typing `ADMIN' and pressing the **Enter** (Return) Key. The first supervisor action should be to take care of the program access requirement in order to prevent initial lockout situations and to ensure a continuing

protection of the database.

Password Screen

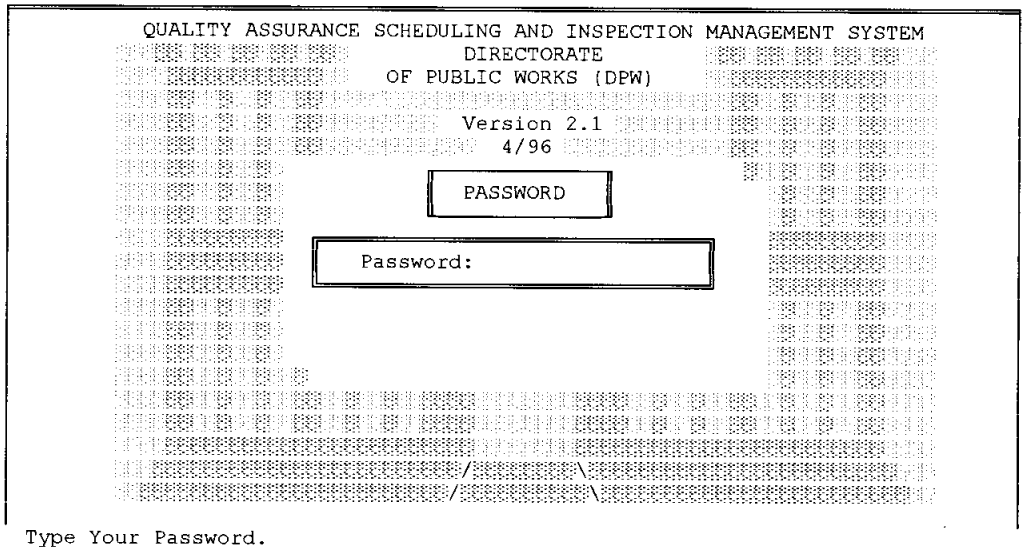


Figure 3-1: QASIMS Password entry screen.

(1) Initial Access: Satisfy initial access password requirements by moving to the Password Control Area as follows:

(a) Type: **ADMIN**

(b) Press the Enter Key to access the QASIMS Program. (The **MAIN MENU** will then appear.)

(c) Using arrow keys, highlight the first Main Menu entry, **Set Local Support**, and press the **Enter** Key to select that listing and bring up the corresponding **Setup Menu**.

(d) Again, highlight the first Setup Menu entry, **Update Inspector/User Status**, and press the **Enter** Key to bring up the corresponding submenu with the same title.

(e) Select the last entry, **View/Edit User Program Access**, in the Setup Inspector/User Status submenu as above.

(2) Access Management: Assign passwords and access privileges as follows:

(a) After accessing the **Users ID & Access** Screen (Figure 3-2), the supervisor is faced with a data entry screen that is controlled by view and add/amend symbols along the bottom of the screen. The default login data will be shown on the screen with password `ADMIN'. To add a user of the program, select `Append' option by hitting `A' key from the keyboard (or use arrow keys to highlight the `Append' option followed by ENTER key to select it). The program will blank the all the fields and ready to accept user input. Type in the required information as indicated. After each block entry is completed, press the **ENTER** Key and move to the next block. The supervisor should enter his/her access screen first, flagging each Access Privilege area to give the supervisor total access. Save the entries by pressing the **F10 Key**; amend/change the entries by going to the Edit Mode; void the screen by using the **ESC**ape **Key**.

(b) Next, all immediate users names, IDs and access privileges should be entered on separate Append Mode screens. An example of a User ID & Access Screen for a

typical user is shown in Figure 3-2.

(c) Finally, the software supervisor should review first screen by using the First Mode and Enter Key; followed by the Next Mode and Enter Key, until all user screens have been reviewed and verified.

A-1-3) SETUP USERS

```
                    User Access Levels

                 User Identification
     ID: 01                Password: ADMIN
   Name:  First: TEMPORARY    Mid:    Last: ACCESS

                 Task completion Date
 Main menu          Primary Category   Second. Category   Access

 Local Support      Inspector/User     Inspector Stat.     ◄
                                       User Access         ◄
                    Edit Facility                          ◄
                    Contracts          Link Contr/CLIN     ◄
                                       Specify QA Plan     ◄
                    PM Check Points                        ◄
 Task Listing       Download WO        From IFS-M          ◄
                                       Using Diskette      ◄
                                       Input Manually      ◄

Press ENTER ◄┘ to Select/Deselect Menu to access.
↑↓ scrolls;  ESC Quit;  F10 Save Changes.
```

Figure 3-2: Typical user access privilege screen.

Once passwords have been established, the system allows the user three attempts at entering a password and then returns to DOS prompt. If a user finds he/she has been returned to the DOS prompt, first try to start over by typing QASIMS again. Then, if unsuccessful, the supervisor should investigate the password used under the **Set Local Requirements Menu**, followed by a Reindexing of the data files under the **Database Utilities Menu**, all as called from the Main Menu. If access is still blocked, assign a new password or call CPW.

c. MENU Structure of QASIMS.

The menu/screen relationships of the QASIMS Program has a predictable flow pattern (Paragraph c. of CHAPTER 2-1). A continuity of QA support is permitted by the organization of the Main Menu and the operations menus including their subordinate menus and screens. The Main Menu, as shown in Figure 3-3, identifies all program access areas.

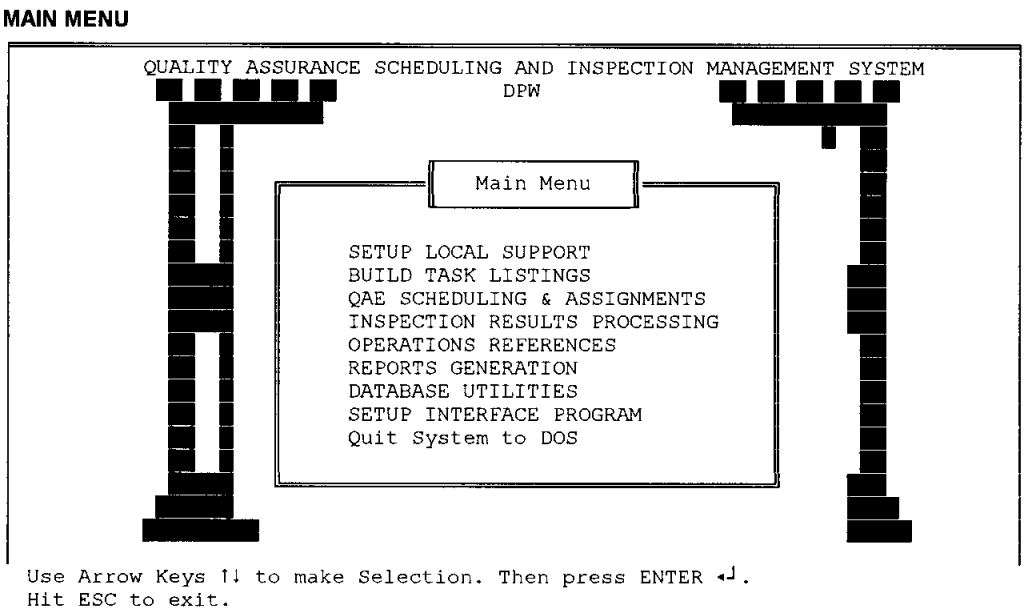


Figure 3-3: The Main Menu of the QASIMS Program.

The MAIN MENU entries are outlined below to permit a discussion of basic QASIMS activities:

(1) SETUP LOCAL SUPPORT: This is a preoperations review of the scheduling resources (people) and constraints that control this process. The program user may read/edit the roster of

QAE inspectors (with their ID data, skills and availability), any area/zone or facility information, and finally the Contractual Information including types of tasks and what Acceptance Quality Levels, i.e.- weighting/scoring/acceptance requirements that are to be applied against their inspections.

(2) BUILD TASK LISTINGS: This allows a review of the specific work orders or completed jobs side of the inspection scheduling process. The program user may read/edit individual jobs that have been supplied by the Contractor(s) for inspection sampling. For each job the database will provide the job ID (Contract Number, Contract Line Item Number, Document ID), its completion date, type of task (Task Code), and facility/location information. The specific jobs thus reviewed may come from the following classes:

(a) Service Order (SO)

(b) Individual Job Order (IJO)

(c) Preventive maintenance (PM) and Standing Operations Order (SOO)

When constraints as to which day of the week inspections should be made for specific SOOs should be made, QASIMS accepts this as a scheduling constraint.

(3) QAE SCHEDULING & ASSIGNMENTS: When calling this part of the program it is necessary to have sufficient task and resource entries for a test or operations run. Selecting the third entry of `Main Menu' calls up The Task Inspection Scheduling Menu which controls sampling, job-class summaries of sampled tasks for inspection of the daily inspectors availability schedule, and a total scheduling output.

(4) INSPECTION RESULTS PROCESSING: This permits the uploading of QAE inspection results data from barcode reader to PC, which are stored, processed, evaluated, and made available for user review:

(a) The first entry in an Inspections Processing Submenu is "Uploading Data from Barcode Reader." This brings up a user friendly screen which walks the operator through the uploading data from the Barcode Wands, as turned in by each QAE at the close of his/her inspection tour. (PC connection information for the Barcode Reader is provided by the Microwand Manual, supplied with each wand.)

(b) The second (last) entry in the Inspections Processing Submenu is a "Add/Edit/Delete Inspection Results." This allows a review and adjustment/correction of each task on which an inspection was performed and reported.

(5) OPERATIONS REFERENCES: This option provides hard copy of the data helpful to operate the QASIMS. The printouts include general information about inspectors and facilities, and barcoded information about facilities, contracts, and check lists for Preventive Maintenances. The barcoded information is for the users with keyboard, with barcode reader attached to it.

(6) REPORTS GENERATION: This entry calls up the Reports Generation Submenu which accesses the following:

(a) Inspected Jobs Report: Provide a complete inspection jobs by its populations and selected samples.

(b) Inspection Results Reports: Provide various kind of reports showing individual result of each inspection categorized by `Reinspection', `Failed Inspection', and `Customer Complain'. Both of `QA Plan' and `IJO' contracts are covered.

(c) Contractor Deficiency Evaluation: These reports provide statistical data showing the contractor's performance by each Contract Line Item Number.

(7) DATABASE UTILITIES: This permits control of internal operations of the QASIMS Program.

(8) SETUP INTERFACE (SYSTEM): This directs setup for

necessary devices such as printer and barcode reader.

(9) QUIT SYSTEM: Striking the **ESC**ape key or selecting the last Main Menu entry causes an immediate exit from QASIMS and return to DOS prompt.

NOTES:

4. METHODS FOR OPERATING QASIMS

This chapter describes the operations information needed by users for performing under each MAIN MENU selection.

4-1 BASIC PERFORMANCE OPERATIONS

QASIMS Program operating features are briefly reviewed in this chapter in order to provide the new user with an introduction to the functions and operating methods that will be encountered. The scope of what data must be provided to QASIMS, and what services and reports may be expected from QASIMS are reviewed as follows:

a. <u>What QASIMS Needs</u>.

Data Processed by the QASIMS Program: The QASIMS database is built-up from:

(1) Keyboard and Batch Entry of QASIMS Data: The acceptance by QASIMS of contractor work completion data, the interrogation of IFS-M completion entries, and the manual entry or updating of such data are options which responsible users should be able to support.

(2) QASIMS Derived Entries in the Database: After the data needed for sampling and scheduling has been accepted, QASIMS processes this information under QA management control. For instance, sampling of job completion lists are performed on segregated lots that are formed according to job-type (SO, IJO, etc.) and the local inspection zone attributes, if any,

of each entry in the task list. The zone is defined locally and may be a base location and/or a technical class/skill.

b. <u>What QASIMS Provides</u>:

QASIMS provides overall schedules for QA management and individual inspector schedules for QA evaluators (QAEs) from properly sampled completion lists. It also generates barcoded checklists for each QAE on request.

Inspection results are processed and evaluated, and prescribed reports are generated by QASIMS on user command. Report forms currently incorporated as QASIMS' outputs are the following:

(1) Inspection (Results) Reporting:

- o Inspection Result Report
- o Failed Inspection Report
- o Customer complaint Report

(2) Inspector Assessments:

- o Missed Inspections Report

(3) Management Reviews:

- o Contractor's Deficiency Report (CDR)

4-2 OPERATING METHODS

a. Menu Review and Making a Selection

The QASIMS Program uses menu and data-entry screens to allow the operator to move between different parts of the system. When a menu appears, the first of the options on the menu will be highlighted. To select an option other than the one highlighted, use the **up** or **down arrow** keys to highlight the desired option. Press **Enter** to access the highlighted option.

b. Keyboard Control Methods

From the MAIN MENU (Figure 3-4), for example, if the maintenance management user wishes assistance in developing a list of tasks ready for QA inspection, he/she should adjust the select arrow to highlight the first Main Menu entry, **SETUP LOCAL INSPECTIONS**, and then press **Enter.**

Again, press the **down arrow** key to highlight the type of data entry desired, and then press **Enter Key**. After each selection from the Main Menu, the screen clears and a subordinate menu (submenu) appears. It is from the submenus that QASIMS Program activities are selected for productive work. Table 2 lists the keys used to move inside and between menus.

TABLE 2: Standard Keys

KEYS USED FOR MOVING BETWEEN MENUS

Key	Function
Esc	Return to Previous Menu; or quit program (if Main Menu).
Up Arrow	Move menu highlighter up
Down Arrow	Move menu highlighter down
Enter	Make menu selection

c. Screens for Data Entry and Editing.

Data Entry Screens: The QASIMS Program uses data screens for entering or revising data. Batch loading and single task addition/modification/review are available from the BUILD TASK DATA Menu, callable from the Main Menu.

When a screen provides information on one object out of many, it is important to know the orientation of that object. In this case, the screen and its content is controlled by the data management symbols in the line from the bottom of the screen:

N:Next (on List) **P:Prev**(ious Listing) **F:First** (Listing)
L:Last (Listing) **S:Seek** (object) **E:Edit** (screen)
D:Delete (screen) **A:Append** (or add to List)
Q:Quit (the screen topic, and return to the controlling menu).

The left/right arrows move a highlighter between these choices, and the Enter Key implements the choice.

A typical sequence will be to find the spread of a listing (F & L Modes), search or seek (S) out the screen with a key item of interest, edit (E) this screen as needed, save the changes by pressing F-10, and then use left or right arrows to the Quit Mode. For any input-type screen, if there are no relevant listings in the database for that screen, the program expects a new entry to be provided and will be "locked" in an add or Append Mode. Of course, a saved data entry or the ESCape Key releases the lock, and a right arrow will then move the highlighter to the Quit Mode.

5: OPERATING THE ON-LINE QASIMS PROGRAM

5-1 GENERAL

It is appropriate for the general user to operate the QASIMS Program whenever an operations, reporting or training/familiarization need exists. Time should be slated for QA database review or modification, inspection records examination, and summary reports generation, as well as the sampling/scheduling/downloading of active QA operations.

It is assumed in the following procedure that the QASIMS Program is the sole occupant in a subdirectory of the C Drive, called QASIMS. Your local supervisor may have placed the program on another Drive, but can adjust these procedures accordingly if there is an interpretation problem.

5-2 NORMAL OPERATIONS

The following procedure is for the "cold" user who has been away from his PC and the QASIMS Program for some time:

STARTUP:

a. Turn-on the PC and login as you normally do. When the DOS command symbol **C:\>** comes to the screen, use your PC keyboard to type in:

C:\>CD\QASIMS

and press the ENTER key, to which the PC will respond:

C:\QASIMS> .

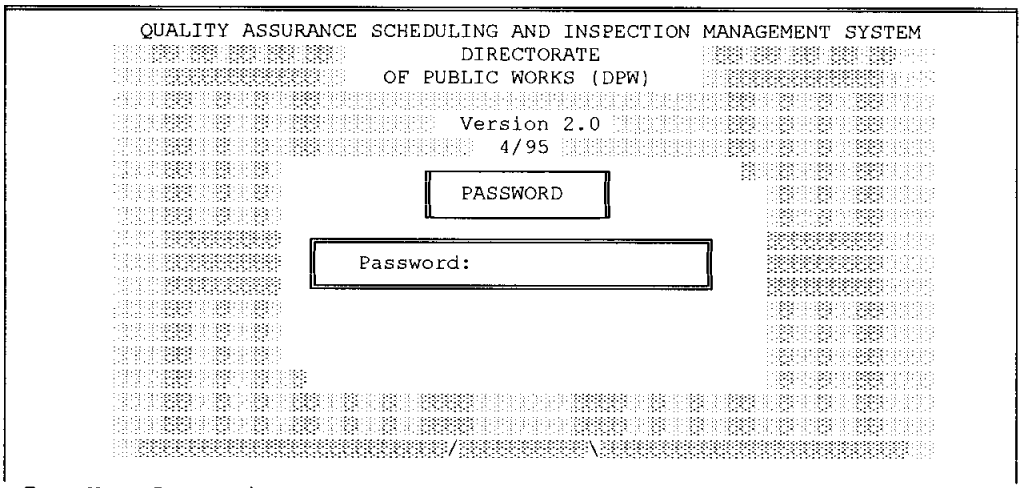
You are now in the QASIMS Subdirectory, and ready to access the QASIMS Program. Simply type **QASIMS** onto the screen, giving: **C:\QASIMS**>QASIMS

which, after hitting the **Enter** Key, will dissolve to give the password screen to show that you are now interacting with the QASIMS Program.

PASSWORD:

The first requirement of the Program will be the password (obtainable from your PC Supervisor) which is requested by the logo-screen as follows:

Password Screen



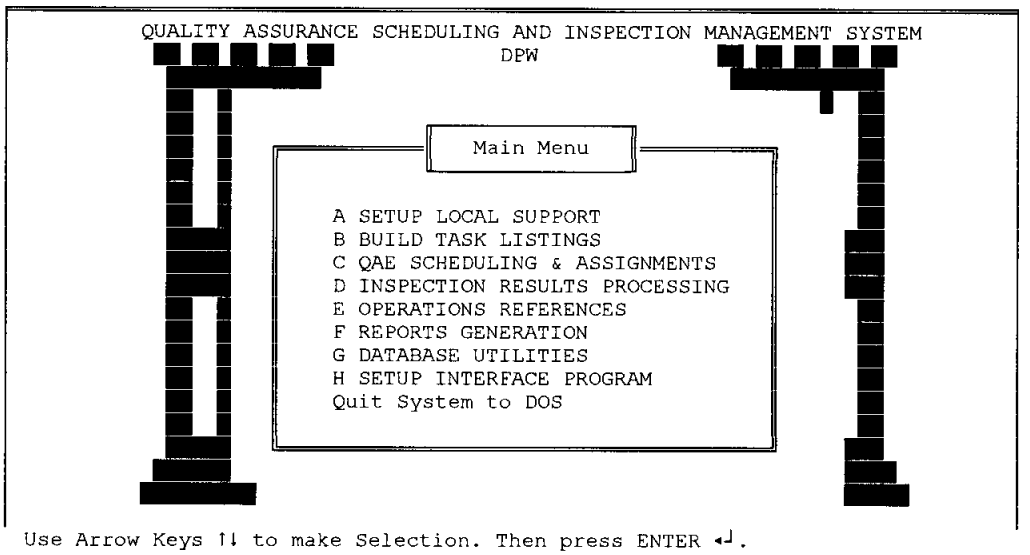
Type Your Password.
Hit ESC to Exit.

The typed password will not appear on the screen, but, if accepted, will immediately bring-up the Main Menu. If an error was made in entering the password, it may be reentered up to 3 times; after which, logout from DOS and begin again. If access is still denied, see your PC supervisor.

MAIN MENU CHOICES:

After acceptance of your password, the MAIN MENU of QASIMS will appear, as follows:

MAIN MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

Note: The letter line-designations are for the convenience of the discussions of this manual and do not appear on the actual menu.

The procedure for selecting Main Menu entries was described in Section 4-2.b, which may again be referred to, if the highlighting/selection mechanism is not immediately obvious.

The entries of the Main Menu are listed in the logical sequence of normal (typical) QA operations. The Main Menu order is also followed in this procedural guide. However, the user is not constrained by the program in option selection. The user may select any entry or sequence of entries from the Main Menu, but if a QASIMS function is not performed, the output of that function will not be present to meet the needs of dependent functions.

Guidance in the use of the PERFORMANCE ENTRIES of the Main Menu are provided in Sections A through H in accordance

with the letter designations of these entries as shown above.

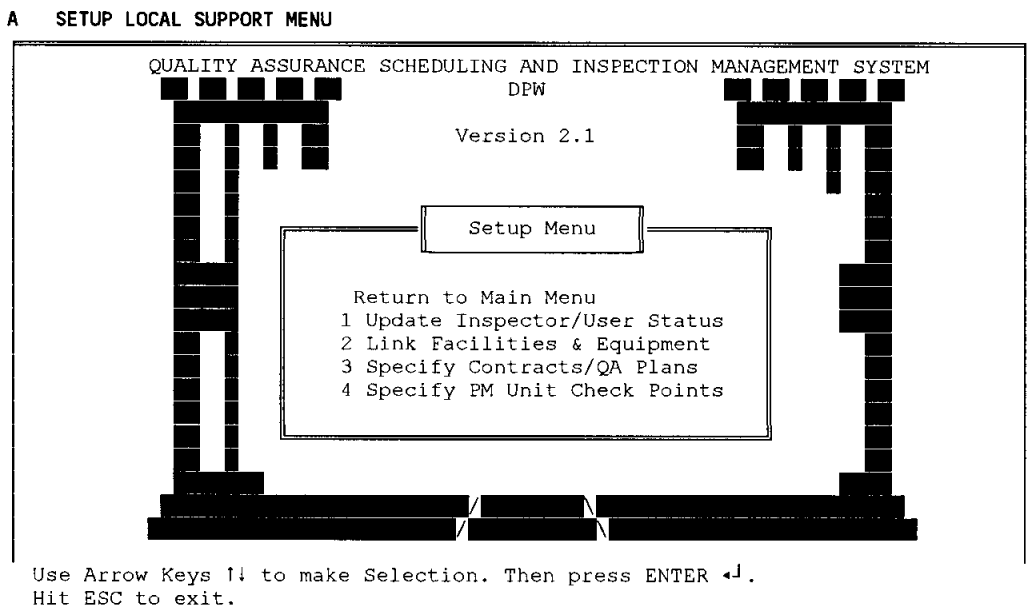
The presentation follows a format that states an objective, associated general information, and necessary detailed guidance in the implementation of each of the Main Menu entries.

SECTION A. SETUP LOCAL REQUIREMENTS
FOR QA PERFORMANCE PLANNING:

Objective: *Identify all resources needed to perform quality assurance inspections over the selected planning period.*

General: Before implementing the planning functions in the QASIMS Program, the data supervisor or authorized user should verify all completed task relationships and set needed QA performance responsibilities.

Guidance: Hitting the ENTER Key when the <u>first</u> entry of Main Menu is highlighted will produce Operations Menu A, i.e. - the **Setup Menu.**



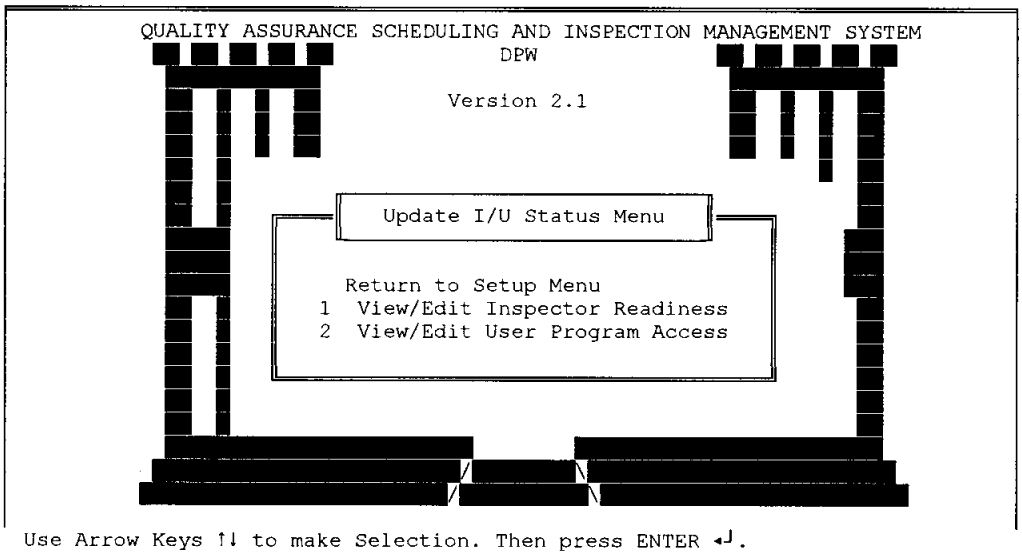
There are four setup choices in this menu. The first is an operations entry which would be selected for reviewing/ setting the identification criteria and current availability of the QAE inspectors; as well as user access levels for the control and security of the QASIMS Program.

A-1 SET INSPECTOR/USER STATUS

To implement the setup operations, we use the keyboard arrows to highlight the first operations entry of the Setup Menu, ie. A-1, and press Enter. This brings up Submenu A-1.

After selecting Entry 1 from the A-1 Submenu (Update/Status Menu), we are in a position to review/correct the identifying data of each active inspector, link each inspector with an appropriate job-type and skill, and review any limits to the users' access privileges in operating the QASIMS Program.

A-1. Update I/U Status Menu



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

A-1.1 <u>View/Edit Inspector Data</u>: The identification and shop/skill affiliation of each inspector is brought to the screen (one inspector at a time) where his/her availability for the coming inspection period can be updated. As noted before (Section 4-2 c), if there are no data available to the screen from the database, QASIMS expects the user to provide such information, and the user is "locked" in the add or append Mode. Of course, data entry or the **ESC**ape **Key** releases the lock, and a right arrow will move the highlighter at the bottom of the screen to the Quit Mode.

A-1.1 SETUP INSPECTORS

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
[redacted]                    DPW                    [redacted]

                    QAE (Inspector) Status

                 Inspector Identification
  Start: 02/08/93   ID: 12
 Phone1: (703)806-3132 Phone2:
   Name:  First: SIXTO        Mid:   Last: COLLANTES

                 Inspector Availability
             Sun   Mon   Tue   Wed   Thu   Fri   Sat
 Minutes:     0     0   640   640   640   640     0

[redacted]
N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

Whenever changes are made to an inspector's status on this screen, take care to hit the F10 Key while in the Edit Mode in order to save these changes.

A-1.2 <u>Screen for Assigning User Access Privileges</u>:

The identification, password of the Data Supervisor and each QASIMS user can be called up by the Data Supervisor, and the Access Privileges of each user and user-inspector reviewed or updated. The Data Supervisor should have firmed these Access Privileges before this general operations mode.

A-1.2. View/Edit Program Access by Authorized Users
[For supervision or administrator review & updating]

User Access Levels

User Identification

ID: 01 Password: ADMIN
Name: First: TEMPORARY Mid: Last: ACCESS

Task completion Date

Main menu	Primary Category	Second. Category	Access
Local Support	Inspector/User	Inspector Stat.	◄
		User Access	◄
	Edit Facility		◄
	Contracts	Link Contr/CLIN	◄
		Specify QA Plan	◄
	PM Check Points		◄
Task Listing	Download WO	From IFS-M	◄
		Using Diskette	◄
		Input Manually	◄

Press ENTER ◄┘ to Select/Deselect Menu to access.
↑↓ scrolls; ESC Quit; F10 Save Changes.

A-2 Link Facilities & Their Equipment

This database input screen is for identifying QA supported buildings and their associated equipment, family housing, partition and machinery.

A-2. Link Facilities & Their Equipment

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Link Facilities & Their Equipment

Facility Group

Installation: 01010 ALLEN STAGEFIELD AL
Facility #: 26401 Name: (ALLEN TOWER)

Assigned Unit/Equipment

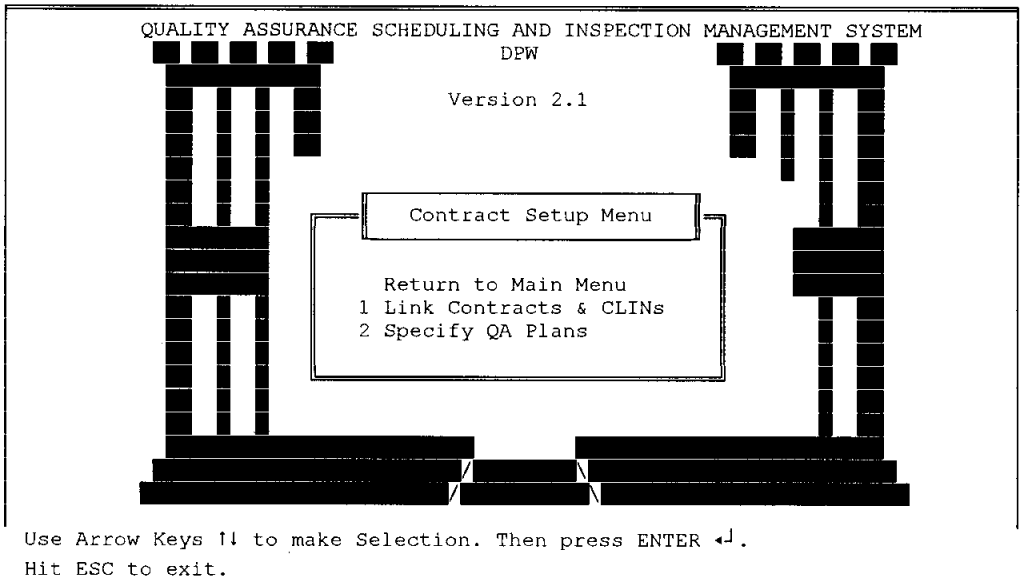
Unit/Eqp Number	Description	PM Guide
A	AC WINDOW-1	60100

Type Equipment/Unit Description.
↑↓ scrolls; ESC Quit; F10 Save Changes; F4 Add a line; DEL delete a line

A-3 Specify QA Inspection Features/Planning

This operation involves two procedures. One is to assign `Contract Line Item Numbers (CLIN)' to each contract, and the other is to define `Quality Assurance Plan' for each `Contract Line Item Number'. To initiate these procedures, we use key board arrows to highlight the third operations entry of the setup menu. This brings up Submenu A-3. After selecting Entry 1 from the A-3 Submenu(Contract Setup Menu), we are in the position to review/correct relations between Contract and `Contract Line Item Numbers(CLINs)'.

A-3. Contract Setup menu



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

A-3.1 View/Edit Contract Data: This database input screen is for identifying contracts with their associated `Contract Line Item Numbers(CLINs)'.

A-3.1 View/Edit Contract Data

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Link Contracts & Their CLINs

Contract

Contract #: DABT01-96-D-0001 Title: Test Contract.
Amount: $ 123,459.23 Memo: See Memo
Contractor: Test Contractor. Phone: 217-344-3353

Assigned CLINs

CLIN	Description	Data Source	Amount
001AA	Work reception & Process.	1	$ 10,000.00
001AB	Schedule, Record, report	1	$ 10,000.00
001AC	Detailed Cost Estimates	1	$ 10,000.00
001AD	As-built Drawings	1	$ 10,000.00
001AE	IFS-M Data Input Service	1	$ 10,000.00
001AF	Emergency Service Orders.	1	$ 10,000.00

Type CLIN Number.
↑↓ scrolls; ESC Quit; F10 Save Changes; F4 Add a line; DEL delete a line

Note: "Data:3" above is from a selection of: 1)IFS-M; 2)Diskette; 3) QA Plan;or 4) IJO Inspection sources.

A-3.2 QA Inspection Features: QA procedures for any specific DPW are incorporated into QASIM's logic through a self-building screen with four (4) entry phases:

PHASE 1: This procedure calls for the identifying features of a specific inspection task. To display the corresponding QA Plan on the screen, user need to select the `Contract Number' from the list as been shown on screen A-3.2a. This will bring up input screen (A-3.2b). If qualified, this screen permits the user to view, edit, or delete/add the planned QA inspection tasks. When finished, the user may press either F3 to initiate Phase 2, F4 to initiate Phase 3, or F5 to initiate Phase 4.

A-3.2 EDIT QA PLANS

A-3.2a Select Contract Number to edit.

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Edit QA Plans

Select Contract Number

Contract Number	Title
DABT01-96-D-0001	Commercial Activity Contract

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

A-3.2b QA Planning (Basic Information)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                          [ Edit QA Plans ]
Contr #:DABT01-96-D-0001
                          QA Planning
     CLIN #: 001AA Sub_#:01  Type:M DOC_ID: VARIES            Ph: VAR
     Plan #: 001    Desc: PROVIDE WORK RECEPTION AND PROCESSING
  Frequency: M   Insp. Delay:  0Day(s)          Sample: 1 Shop:723
  Inspector: 07  VIRGINIA     HOUCHIN           Remark: See Memo

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
F3 Assign Facility/Equipment;  F4 Edit Schedule, F5 Edit Performance Indicator
```

PHASE 2: This input screen (A-3.2c) calls for identifying a facility /equipment for a specific inspection task. If qualified, this screen permits the user to view, edit, or delete/add the planned QA inspection tasks. When finished, the user may press F10 to save entries and return to Screen A-3.2b.

A-3.2c Assign Facilities/Equipment to QA Plans

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                          [ Edit QA Plans ]
Contr #:DABT01-96-D-0001
                          QA Planning
     CLIN #: 001TT Sub_#:01  Type:M DOC_ID: VARIES            Ph: VAR
     Plan #: 201    Desc: Dumpster Cleaning.
  Frequency: W   Insp. Delay:  1Day(s)          Sample: 1 Shop:710
  Inspector: 10  ROBIN        MYERS             Remark: See Memo

                          Assigned Fac/Equip
 Inst.   Fac.    Units/Eqp    Description                        PM Doc
 51105   DMPST   00001
 51105   DMPST   00002
 51105   DMPST   00003
 51105   DMPST   00004
 51105   DMPST   00005

Type Installation Number or hit F8 to select a Installation from table.
↑↓ scrolls;  ESC Quit;  F10 Save Changes; F4 Add a line; DEL delete a line
```

F3 OF SCREEN A-3.2b BRINGS UP SCREEN A-3.2c:

PHASE 3: When inspections are restricted to certain days of the week, month, or year, this input screen is engaged and the required day(s) highlighted and selected. The following screen (A-3.2d) is for `Weekly Schedule', and different type of selection screens shall be displayed for `Monthly' and `Yearly' schedule respectively.

A-3.2d Inspection Schedule time-of-performance restrictions

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                          Edit QA Plans
Contr #:DABT01-96-D-0

     CLIN #: 001TT    Allowed Inspection Days                Ph: VAR
     Plan #: 201
  Frequency: W   In      DOW   Desc                    P.E.: 1 Shop:710
  Inspector: 10  RO                                    ark: See Memo
                         SUN   SUNDAY
                         MON   MONDAY      ◄
                         TUE   TUESDAY
                         WED   WEDNESDAY   ◄
                         THU   THURSDAY
                         FRI   FRIDAY      ◄
                         SAT   SATURDAY

Select your choice.
↑,↓ to scroll,  ENTER ◄┘ to select/deselct, ESC to cancel,  F10 Done.
```

F4 OF SCREEN A-3.2b BRINGS UP SCREEN A-3.2d:

PHASE 4: This input screen (A-3.2e) is for designating technical information of contract for each Contract Line Item Number (CLIN). It includes each tasks to be completed with its Maximum Allowable defect rate (MADR) and weight (ratio). To save the changes, press F10 key.

A-3.2e Assign Inspection Requirements to QA Plans

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    [ Edit QA Plans ]
Contr #:DABT01-96-D-0001
                          QA Planning
    CLIN #: 001TT Sub_#:01  Type:M DOC_ID: VARIES            Ph: VAR
    Plan #: 201    Desc: Dumpster Cleaning.
 Frequency: W   Insp. Delay:  1Day(s)          Sample: 1 Shop:710
 Inspector: 10  ROBIN        MYERS             Remark: See Memo

                        Assigned Standards
 Code   Description            MADR   Unit   Ratio(%)   Standard
 01     Empty Dumpster          2      %      50        <Memo>
 02     Clean area              2      %      50        <Memo>

Type Performance Indicator Code.
↑↓ scrolls;  ESC Quit;  F10 Save Changes; F4 Add a line; DEL delete a line
```

F5 OF SCREEN A-3.2b BRINGS UP SCREEN A-3.2e:

A-4 Edit PM Performance Plan

This database input screen is for identifying Preventive maintenance Check Lists and their associated Check Points.

A-4. Link PM Check Lists and Check Points

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Edit PM Performance Plan

PM Check List

PM Guide #: 10200 Desc: Condensor, Air Cooled 26-100T.

Assigned Check Points

Check Point Code	Freq.	Description
10201	S	<Memo>
10202	S	<Memo>
10203	S	<Memo>
10204	S	<Memo>
10205	S	<Memo>
10206	A	<Memo>
10207	A	<Memo>
10208	S	<Memo>

Hit ↵ ENTER to edit memo.
↑↓ scrolls; ESC Quit; F10 Save Changes; F4 Add a line; DEL delete a line

SECTION B BUILDING A LISTING OF INSPECTION TASK CANDIDATES.

Objective: *Identify and format all completed maintenance jobs (within the planning time-frame) that are subject to QA inspections.*

General: Verifying or editing/adding-to the Job Completion Lists (as supplied by the responsible RPMA contractor directly or through the IFS-M System) allows adjustments prior to the Inspection Task sampling process. The menus and screens of this section are for the scheduling preparation of work order (WO) listings over a specified completion time-period as QA inspection candidates. Completed WOs are called from IFS-M and User-entered sources under the Candidate Inspection Task Listing Menu, and reordered for the creation of an inspection task candidate list; ie. - one Total Population File. This is in preparation for the selective application of a QA inspection sampling process.

Guidance: Press the ENTER key when the <u>second</u> option of the <u>Main Menu</u> is highlighted will produce the **Candidate Inspection Task Listing Menu.**

B. CANDIDATE INSPECTION TASK LISTING MENU

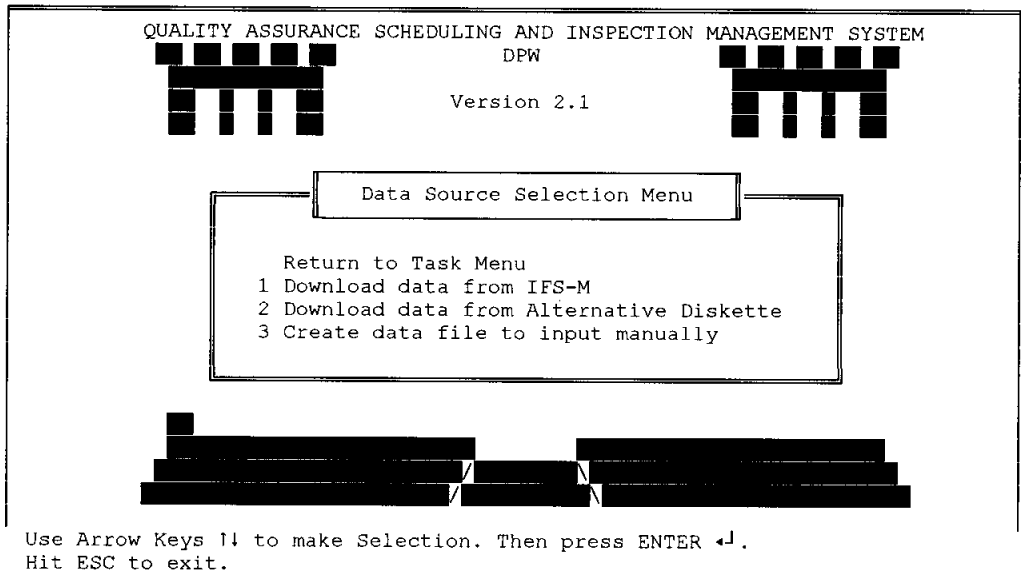
```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                              DPW

                 Candidate Insp. Task Listing Menu

   Return to Main Menu
 1 Download Completed Work Orders
 2 View/Edit Directly Entered WO Inputs:
   (1) IJO First-time Inspections
   (2) Reinspection Tasks (all categories)
 3 Integrate PM/SOO Maint. Jobs into QA Plans
 4 Build/Edit Inspection Popualtion  under:
   (1) IJO First-time Inspections
   (2) WO Reinspetions
   (3) Active Task File(s)
 5 Build a Total Population File

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.
```

Eight (8) possible paths lead from the five (5) primary entries of this menu. Looking at the second entry in the CITL Menu, there is no B-2 screen (and it is not highlighted), only a B-2.1 or B-2.2 screen is callable; etc.

B-1 Downloading of Completed WO Records

Processing of the completed work-order information necessary to QA inspection scheduling requires the downloading and formatting (file generation) of completed work-order listings. This first operations callup is implemented by a Data Source Selection Menu, calling for IFS-M, or batch processing contractor provided diskette, or manual user input selections. From this menu, screens are accessed which permit the downloading of completed WO records over a run-fixed period of time (chosen/assigned to best reflect DPW maintenance procedural needs) and their corresponding installation into the QASIMS database.

B-1. MENU FOR SELECTING THE SOURCE OF INPUT JOB-COMPLETION DATA



B-1.1 Downloading Data from IFS-M

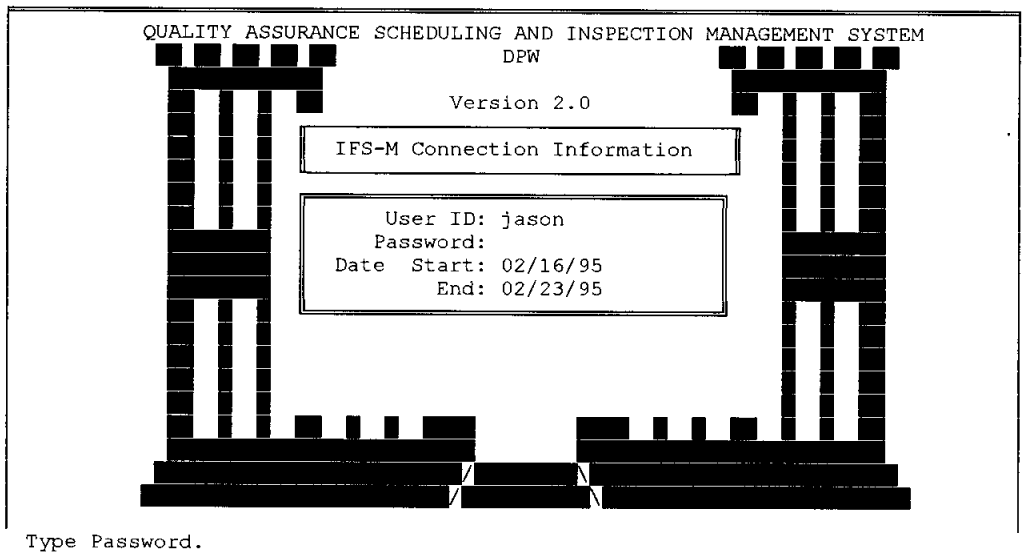
The expected source of input data to the QASIMS Program is from the IFS-M database. All other approaches are considered to be alternatives or backup methods. Hence, the "normal" downloading of completed work order records are performed as follows:

B-1.1.1 Access Preface Screen

Initiate automated IFS-M linkage by designating access data (user ID and password to IFS-M), and a time-period for which completed WO information is to be downloaded.

B-1.1 Download Data from IFS-M

B-1.1.1 IFS-M CONNECTION INFORMATION



Type Password.
Hit ESC to Quit, F10 to continue.

The QASIMS then automatically connect to IFS-M using VistaCom, and download all the completed work orders within the given time period. All of these procedure take between one to twenty minutes depend on the local condition.

B-1.1.2 Data Files

Once completed Work Order Data is downloaded from IFS-M, QASIMS asks for a file name to save the data. Type the name of the file and description you want to save, and hit F10 key to save the data. This concludes creating `Temporary Population file' downloaded from IFS-M. Multiple `Temporary Population Files' can be combined together to build `Permanent Population File', which will be used to create samples for the inspection. This combining procedure will be introduced on the fifth option of the CITL menu.

B-1.1.2 File Generaions

```
                    Load Inspection Data

Converting data file C:\QASIMS\DATA\CLSD-PM.DAT.
Please

                         Save File

            File Name: T        .DBF
                Desc.:

Type Temporary Population Database File Name and description to save.
ESC to Exit, F10 to continue...
```

B-1.2 Alternative Downloading by Means of Diskettes

An alternate source of operations input data can be PC diskette copies of IFS-M records or can be WO completion record diskettes supplied directly from the contractor. Following screens show the procedure creating `Temporary Population file' downloaded from alternative diskette.

B-1.2.a. WO COMPLETION PERIOD OF THIS SCHEDULING RUN (Start to End Date).

```
Download Data from Alternative Diskette

Work Order Completion Date Range
Start: 04/08/96    End: 04/15/96

Type starting date.
Hit ESC to exit, F10 when done.
```

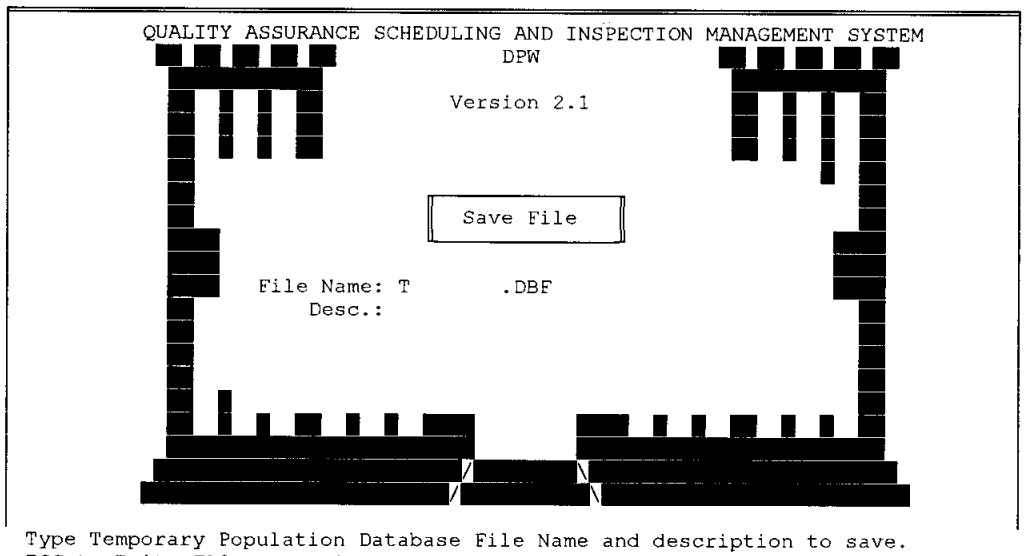
B-1.2.b. SAVE THE FILE

```
Load Inspection Data

Converting data file c:\qasims\ver21\CLSD-PM.DAT.
Please

Save File

File Name: T        .DBF
    Desc.:

Type Temporary Population Database File Name and description to save.
ESC to Exit, F10 to continue...
```

B-1.3 Create Data file to input Work Orders Manually

This option allows user to create data file so that he can put the Work Order data manually. This option is for the installations who have no access to their own IFS-M.

B-1.3. Create data file to input Work Order data manually



Type Temporary Population Database File Name and description to save.
ESC to Exit, F10 to continue...

B-2 Edit Directly Entered WO Inputs:

The first operation entry (second primary entry) in the Candidate Inspection Task Listing Menu is to edit individual inspection tasks for 2 job-classes (IJO and reinspection). QASIMS depends on user's manual input for the IJO inspection. Reinspection items are automatically generated through the inspection process, when an inspection has been failed and `reinspection' is requested by the inspector. However, if the user want to edit the reinspection record, he or she can do it by selecting this option. Following screens allow a correction/ verification of job/task descriptions and the availability of qualified QA Evaluators.

B-2.1 Edit IJO Assignments:

Candidate IJO's for original (first-time) QA inspections.

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit IJO Assignments

  Contr. #:
    CLIN #: IJO   Sub_#:NA  Typ:J  DOC_ID: 51105DPW000025J  Ph: 001
 QA Plan #: N/A
   Created: 10/23/94  Completed: 02/08/95  Pri:      Frequency: N
  RPF Inst: 01010  Fac.: 26406  ALLEN S/F HOUSE
      Unit: H           HT PL U .75M GS
      Task:
      Shop: 79   IJO BR                Inspection Date: 10/13/95
 Inspector: 10  ROBIN        MYERS
  Job Desc: Heating Unit does not work.
  Location: 00036A (Colonel's )
  POC Name: Colonel James   Phone: 703-806-3124  Remark: See Memo

Total Record #:          2  Invalid Record #:          0    Invalid

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

B-2.2 Edit Completed WO's Requiring QA Reinspections

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Reinspection Data

  Contr. #: ACDC-1294-000011
    CLIN #: 001AF Sub_#:11  Typ:   DOC_ID: 51105FD028976R   Ph: N/A
 QA Plan #:
   Created: 10/26/95  Completed: 11/01/95  Pri: 1    Frequency: N
  RPF Inst: 51105  Fac.: 02473
      Unit:
      Task: 99
      Shop: 79   IJO BR                Inspection Date: 01/15/96
 Inspector: 18  ROBERT       GALLAHAN
  Job Desc: R/R FIRE ALARM SYSTEM(SUPV 1)
  Location: BLDG# 2473
  POC Name: MEDNICK         Phone: 806-6911      Remark: See Memo

 Total Record #:          4  Invalid Record #:          0

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

B-3 Integrating SOO/PM Jobs into QA Inspection Planning:

Places SOO and PM jobs that have been completed within the specified time-period into QA Plan listings.

The third operation entry B-3 is to Edit Individual Tasks for the SOO/PM job-classes from the third primary entry in the Candidate Inspection Task Listing Menu. QASIMS allows user to build scheduled SOO and PM works within QASIMS, and use them to create `Temporary Population File'. To create the scheduled SOO or PM works, refer to `A-3 Specify OA Inspection Features/Planning' of this manual. Following screens allow to create `Temporary Population File' from the `Built-In scheduled SOO/PM works'.

B-3. Integrating SOO/PM Jobs into QA Inspection Planning.
B-3.a. Selection of (available) Contract/CLINs

Listings from the Programmed QA Plan

Select Contract/CLIN

Contract #	CLIN #	CLIN Description	
DABT01-96-D-0001	001BY	Meter readings of Sewage.	◂
DABT01-96-D-0001	001BZ	PM on Sewage System	◂
DABT01-96-D-0001	001CA	Rooting Sewage Main.	◂
DABT01-96-D-0001	001CB	Rooting Storm Drainage.	◂
DABT01-96-D-0001	001LL	Test CLIN.	◂
DABT01-96-D-0001	001TT	Test CLIN 2.	◂

Select your choice.
↑,↓ to scroll, ENTER ↵ to select/deselct, ESC to cancel, F10 Done.

B-3.b. Selection of QA Plans

Listings from the Programmed QA Plan

Select QA Plans

Contract #	CLIN #	Sub Code	
DABT01-96-D-0001	001BY	01	◄
DABT01-96-D-0001	001BZ	01	◄
DABT01-96-D-0001	001CA	01	◄
DABT01-96-D-0001	001CB	01	◄
DABT01-96-D-0001	001LL	01	◄
DABT01-96-D-0001	001TT	01	◄
DABT01-96-D-0001	001TT	02	◄

Select your choice.
↑,↓ to scroll, ENTER ↵ to select/deselct, ESC to cancel, F10 Done.

B-3.c. Specifying a Consistent Range of WO Completion Dates

Listings from the Programmed QA Plan

Programmed SOO/PM Completion Date Range

Start: 03/01/96 End: 04/17/96

Type ending date.
Hit ESC to exit, F10 when done.

B-3.d Creating a File

```
                    Listings from the Programmed QA Plan

              Programmed SOO/PM Completion Date Range
 Start: 04/10/96    End: 04/17/96

                          Save File

              File Name: TMAR96PM.DBF
                  Desc.: PMs in March 1996.
```

Type Temporary Population Database File Name and description to save.
ESC to Exit, F10 to continue...

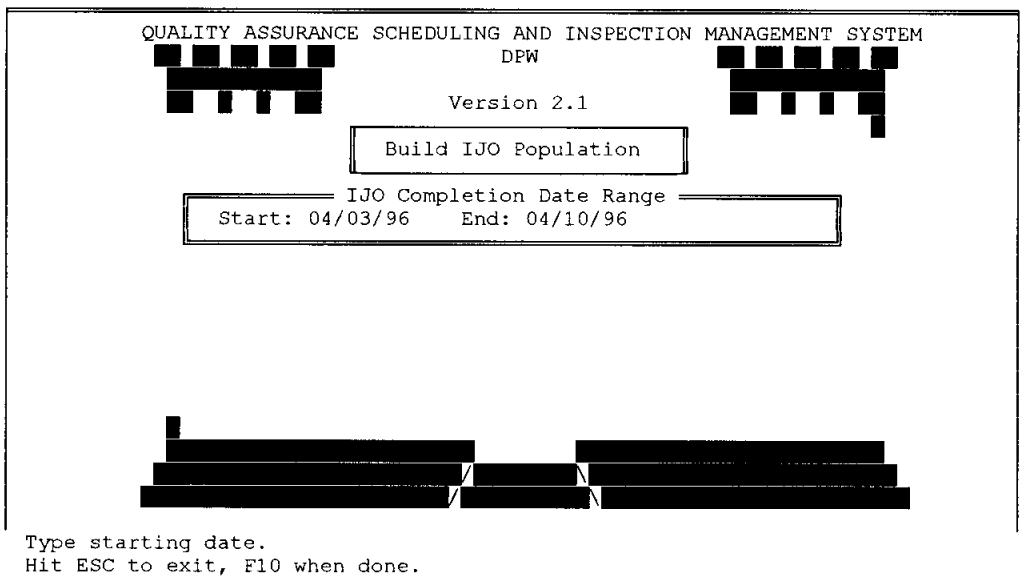
B-4. Build/Edit Inspection Task Population

In the absence of 100% QA inspections, contracting regulations require a random sampling of contractor completed jobs to which these QA inspections are applied. (Army Regulation 5-20.) This requires the building of a completed job listing for a time-period (selected by the QA management) that allows a statistically acceptable population size for random sampling and a workable/effective QA planning period. The planning begins here for Original (first-time) Inspection and Repeated Inspection (Reinspection) categories.

B-4.1 Population of First-Time IJO Inspections

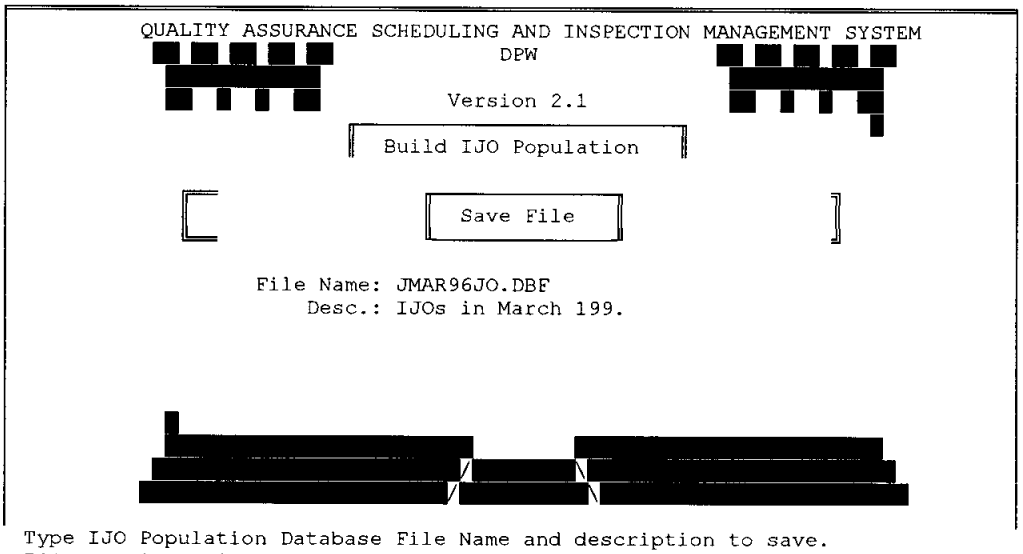
Here we build a listing of original IJO inspections and save them as an `Temporary Population File'.

B-4.1 Population of First-Time IJO Inspections
B-4.1.a. Specifying an IJO Completion Time Period



Type starting date.
Hit ESC to exit, F10 when done.

B-4.1.b. Save IJO Inspection File

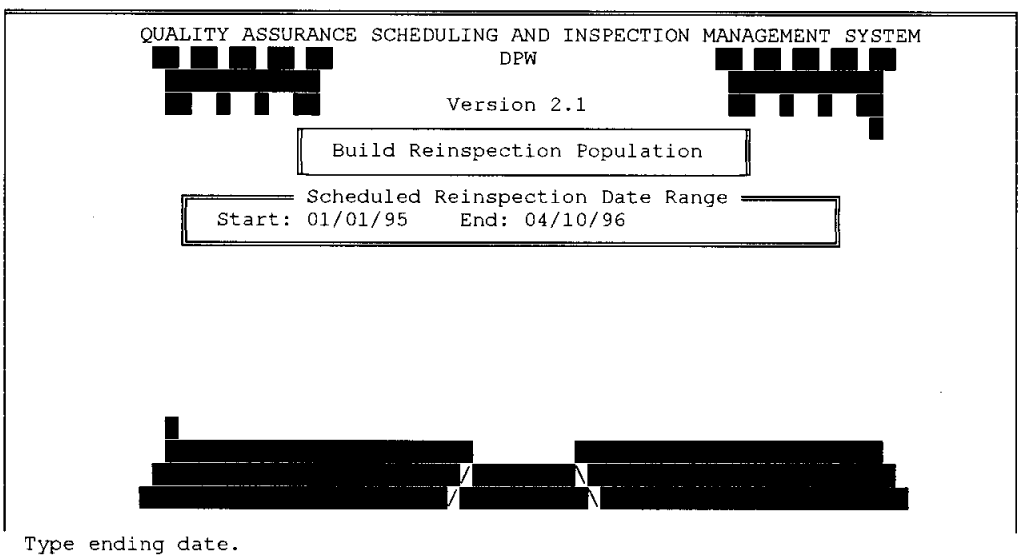


Type IJO Population Database File Name and description to save.
ESC to Exit, F10 to continue...

B-4.2 Build Reinspection Population

A failed inspection will be repeated in the next scheduled inspection time-period. The contractor may be charged a reinspection fee if this happens. Following screens shows how to create a `Temporary Population File' for reinspection works.

B-4.2. Build Reinspection Population
B-4.2.a. Select Reinspection WO Time Period



Type ending date.
Hit ESC to exit, F10 when done.

B-4.2.b. Create Reinspection Population File

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
[redacted]                DPW                [redacted]
[redacted]                                   [redacted]
[redacted]          Version 2.1              [redacted]
                                             [redacted]
                 Build Reinspection Population

                        Save File

          File Name: RMAR96RI.DBF
              Desc.: Reinspevtion in March 1996.

[redacted]
[redacted]
[redacted]
```

Type Reinspection Population Database File Name and description to save.
ESC to Exit, F10 to continue...

B-4.3 Once the temporary population file is prepared, user can edit the Active Inspection Population File (temporary population file). Following screens show how to edit existing population file.

B-4.3. Edit Active Inspection Population File.
B-4.3.a. SELECT POPULATION DATA FILE TO EDIT

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Edit Inspection Population Data

Select/Edit Population Data File

File Name	File Description	Creation Date	Time
TCPWSOPM.DBF	Test SO?PM from CPW's IFS-M.	03/20/96	12:40
TMAR96PM.DBF	PMs in March 1996.	04/10/96	08:45
TQASIMS1.DBF	Test SO/PM from CPW's IFS-M.	03/11/96	11:18
TTEMP001.DBF		01/02/96	13:59
TTEST01.DBF	DFSD	03/20/96	12:40

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

B-4.3.b. EDIT POPULATION DATA FILE

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Inspection Population Data

  Contr. #: DABT01-96-D-0001
    CLIN #: 001AF Sub_#:05  Typ:R  DOC_ID: 01252FH030396R   Ph: N/A
 QA Plan #: 006  Perform Emergency Service Orders
   Created: 02/27/96  Completed: 02/29/96  Pri: 1    Frequency: N
  RPF Inst: 01252  Fac.: 21012
      Unit: A
      Task: 99
      Shop: 713  HVAC SEC              Inspection Date:   /  /
 Inspector: 09  FLOYD        HANDY
  Job Desc: RPR LEAK
  Location: 135 RED CLOUD RD
  POC Name: LIM             Phone: 428-6464      Remark: See Memo

Total Record #:         46  Invalid Record #:          7

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

B-5. Build a Total Population File

The final product prior to a RANDOM SAMPLING by QASIMS is the building a Total Population File. Following screens show how to create a total population file.

B-5. Build a Total Population File
B-5.a. Select Inpection Population files to be included in Total Population file

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Create Total Population File

              Select files to include in population.

                                                  Creation
File Name        Description                      Date
TCPWSOPM.DBF     Test SO?PM from CPW's IFS-M.     03/20/96  ◄
TMAR96PM.DBF     PMs in March 1996.               04/10/96  ◄
TQASIMS1.DBF     Test SO/PM from CPW's IFS-M.     03/11/96
TTEMP001.DBF                                      01/02/96
TTEST01.DBF      DFSD                             03/20/96

Select your choice.
↑,↓ to scroll,  ENTER ◄┘ to select/deselct, ESC to cancel,  F10 Done.
```

B-5.b. Create Total Population File

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Create Total Population File


                          Save File

              File Name: PMARCH01.DBF
                  Desc.: Population for March 1996.

Type Permanent Population Database File Name and description to save.
ESC to Exit, F10 to continue...
```

SECTION C. SAMPLING, INSPECTION SCHEDULING, AND ASSIGNMENTS.

Objective: *Perform fundamental QASIMS operations through the application of limited QA resources to inspection tasks that are randomly sampled, as specified in MACOM/DPW process requirements and/or applicable Army Standards, and then assigned to qualified QA inspectors.*

General: After the preparatory operations that are discussed in previous sections have been completed in their entirety, you are then ready to sample the contractor completed jobs and schedule the QAE inspections. This section covers these operations, including: the sampling of the listings of completed-jobs subject to QA inspections, the scheduling of the inspections from this sampling, and the assignment of the QAEs which are appropriate for performing these inspections.

QASIMS will support a partially contracted (one job category) to fully contracted (all categories) installation.

Guidance: Pressing the ENTER key when the <u>third</u> entry of Main Menu is highlighted as QAE Scheduling & Assignment Operations and will produce the **QAE Task Scheduling Menu.**

C. COMPLETED JOB SAMPLING, INSPECTION TASK SCHEDULING, AND QAE INSPECTOR ASSIGNMENT GENERATION TASK SCHEDULING MENU

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                                DPW

                    Task Scheduling Menu

        Return to Main Menu
        1 Generate Time-Period Samples
        2 Edit sampled First-Time Inspection Tasks For:
           (1) SO Category (IFS-M Source)
           (2) SOO & PM Categories (IFS-M & QA Plan input
           (3) IJO Category (Direct Input)
        3 Edit Sampled WO Reinspection Tasks
        4 Generate QAE Assignment Outputs

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.
```

Call-ups from the QAE Task Scheduling Menu will yield the operations-input type screens which follow.

C-1 CREATE SAMPLE

C-1.1 SELECT CANDIDATE POPULATION FILE FOR SAMPLING

The user must now call-up the completed job lists which are to become the candidate inspection tasks for sampling. These jobs must fall within the time-period specified (by the QA manager) for the QAE scheduling. (For the example shown in this Version 2.1 manual, a one week schedule period is used.) Select the Population file you want to work on from the screen C-1.1.

C-1 CREATE INSPECTION SAMPLE FILE
C-1.1 SELECT POPULATION DATA FILE

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Create Inspection Sample File

Select population data file to edit.

File Name	File Description	Creation Date	Time
PQASIMS1.DBF	Test Population File.	03/11/96	11:18

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

C-1.2 Edit Inspection Sample Size

QASIMS Version 2.1 provides a nominal numerical sampling value that the user should edit to meet the actual requirements for the particular contractor and job-types being processed.

C-1.2 Edit Inspection Sample Size

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Create Inspection Sample File

Edit Inspection Sample Size

Contr #	CLIN	Surv	Pop	Smpl
DABT01-96-D-0001	001AF	RSED	11	1
DABT01-96-D-0001	001AG	RSED	5	0
DABT01-96-D-0001	001AH	RSED	6	0
DABT01-96-D-0001	001AL	RSED	3	0
DABT01-96-D-0001	001AX	RSED	1	0
DABT01-96-D-0001	001BZ	RSED	1	0
DABT01-96-D-0001	001CE	RSED	8	0
DABT01-96-D-0001	001DX	RSED	4	1

Type Inpection Sample Size for Each Contract Line Item.
↑↓ scrolls; ESC Quit; F10 Save Changes.

C-1.3 Save Inspection Sample File

Once all the sample sizes for each Contract Line Item Number are entered, user can save it as a sample file.

C-1.3. Create Sample File

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Create Inspection Sample File

Edit Inspection Sample Size

C 1

D
D
D
D File Name: SMARCH01.DBF
D Desc.: Sample for March 1996 (First)
D
D
D

Save File

Type Inspection Sample Database File Name and description to save.
ESC to Exit, F10 to continue...

C-2 EDIT SAMPLED FIRST-TIME INSPECTION TASKS

At long last we come to the actual QAE inspection operations. Screen C-2 was called up directly by selecting either of the Edit entries in the QAE Task Scheduling Menu. Screen C-2 is the sampling control for all tasks in the database within the time period to be scheduled. This schedule screen allows user to edit sampled inspection data by its category before releasing them for the real inspection.

C-2. EDIT SAMPLED 1ST-TIME (ORIGINAL) INSPECTION TASKS AS DEVELOPED FROM QA RECORDS

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Edit Sampled SO Tasks

Select sampled inspection data file to edit.

File Name	File Description	Creation Date	Time
SMARCH01.DBF	Test QASIMS's sample.	03/11/96	11:19
SSOTEST.DBF	Print Test sample.	03/25/96	14:32

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

C-2.1 EDIT SAMPLED SO TASKS

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Sampled SO Tasks

  Contr. #: DABT01-96-D-0001
    CLIN #: 001AF Sub_#:07  Typ:R  DOC_ID: 01252FM030496R   Ph: N/A
 QA Plan #: 006  Perform Emergency Service Orders
   Created: 02/27/96  Completed: 02/29/96  Pri: 1    Frequency: N
  RPF Inst: 01252  Fac.: 21022  209/211 HARRIS DR
      Unit: B
      Task: 99
      Shop: 510  FAMILY HSG            Inspection Date:   /  /
 Inspector: 01  RANDY        THORNE
  Job Desc: RPR 2 BROKEN WINDOWS
  Location: 211 HARRIS DR
  POC Name: HOHENBERG       Phone: 428-6227      Remark: See Memo

Total Record #:          4  Invalid Record #:          0

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

C-2.2 EDIT SAMPLED SOO OR PM TASKS

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                 Edit Sampled SOO or PM Tasks

  Contr. #: DABT01-96-D-0001
    CLIN #: 001AX Sub_#:01  Typ:M  DOC_ID: 01252FH000036M   Ph: 001
 QA Plan #: 022  PERFORM PM OF AUXILIARY GENERATORS
   Created:   /  /    Completed: 02/16/96  Pri: N    Frequency: M
  RPF Inst: 01252  Fac.: 50104  HANCHEY
      Unit: 1E
      Task: N/A
      Shop: 722  MAINT & REPAIR SEC    Inspection Date:   /  /
 Inspector: 18  ROBERT       GALLAHAN
  Job Desc:
  Location: N/A
  POC Name: N/A             Phone: N/A           Remark: See Memo

Total Record #:          4  Invalid Record #:          0

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

C-2.3 EDIT SAMPLED IJO TASKS

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit IJO Assignments

  Contr. #:
    CLIN #: IJO   Sub_#:NA  Typ:J  DOC_ID: 51105DPW000025J  Ph: 001
 QA Plan #: N/A
   Created: 10/23/94  Completed: 02/08/95  Pri:      Frequency: N
  RPF Inst: 01010  Fac.: 26406  ALLEN S/F HOUSE
      Unit: H           HT PL U .75M GS
      Task:
      Shop: 79   IJO BR                Inspection Date: 10/13/95
 Inspector: 10  ROBIN        MYERS
  Job Desc: Heating Unit does not work.
  Location: 00036A (Colonel's )
  POC Name: Colonel James   Phone: 703-806-3124  Remark: See Memo

Total Record #:          2  Invalid Record #:          0    Invalid

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

C-3 EDIT SAMPLED WO REINSPECTION TASKS

In a similar manner, reinspection (non-original) tasks can be edited as shown on Screen C-3.1.

C-3.1 BASIC REINSPECTION TASK DATA

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Reinspection Data

 Contr. #: ACDC-1294-000011
   CLIN #: 001AF Sub_#:11  Typ:   DOC_ID: 51105FD028976R   Ph: N/A
QA Plan #:
  Created: 10/26/95  Completed: 11/01/95  Pri: 1    Frequency: N
 RPF Inst: 51105  Fac.: 02473
     Unit:
     Task: 99
     Shop: 79   IJO BR                Inspection Date: 01/15/96
Inspector: 18  ROBERT       GALLAHAN
 Job Desc: R/R FIRE ALARM SYSTEM(SUPV 1)
 Location: BLDG# 2473
 POC Name: MEDNICK         Phone: 806-6911      Remark: See Memo

Total Record #:          4  Invalid Record #:          0

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

C-4 GENERATE QAE ASSIGNMENTS

Screen C-4.1 guides the output from QA inspection procedures and checklists in barcode format, and automatically activates the scheduling/assignment algorithm. The outputs from this section direct the QAE in his/her performance of specific inspection tasks, and, with occasional annotation, provide sufficient barcoded responses for complete inspection reporting.

C-4.1 GENERATE QAE ASSIGNMENTS
C-4.1.a Select from Sampled Data File

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Generate QAE Assignments

Select from sampled data file.

Population File Name	Sample File Name	Description
PBOB001.DBF	SBOB001.DBF	Test Sample for Bob.
PBOB001.DBF	SBOB002.DBF	Test Sample.
PDEC01.DBF	SDEC01.DBF	First Smaple of DEC 94.
PDEC02.DBF	SDEC02.DBF	Test sample #2.
PDEC03.DBF	SDEC03.DBF	The third Inspection file.
PDEC02.DBF	SDEC04.DBF	
PTEST03.DBF	STEST03.DBF	Test Sample File (2/5/95)
P'OUN001.DBF	SYOUN001.DBF	Test Sample Data.

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

C-4.1.b Identify Desired PC Output Destination

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Generate QAE Assignments

Output Destination

Return to Previous Screen
Send to Printer
Send to File

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

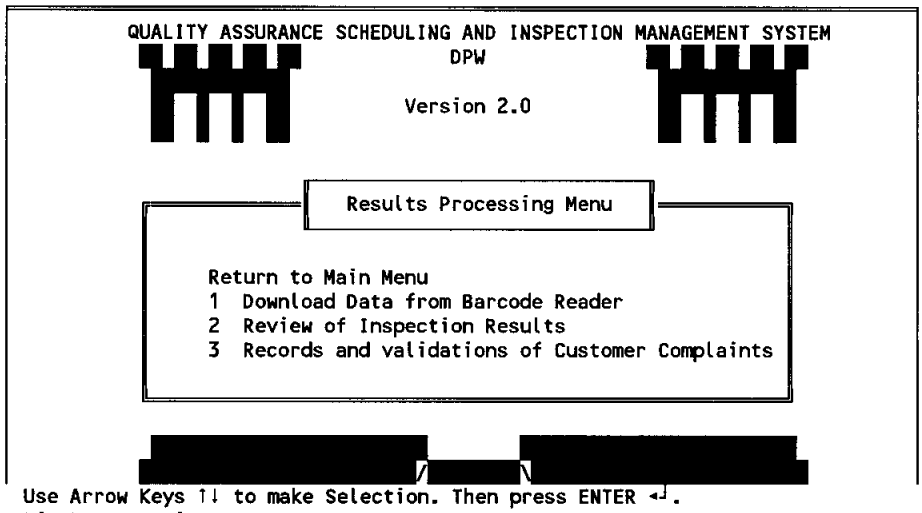
SECTION D INSPECTION RESULTS.

Objective: *Record, process and evaluate (score) individual and aggregated inspection results.*

General: After the QAEs have completed their inspections and attempted to barcode or check-off each item on their inspection listings, the collected results must be placed in the QASIMS database for processing, evaluation and scoring. This is the inspection results phase of the QASIMS Program support.

Guidance: Pressing the ENTER key when the fourth entry of Main Menu is highlighted will produce Operations Menu D, i.e. - The **Inspection Results Processing Menu.**

D. INSPECTION RESULTS PROCESSING MENU



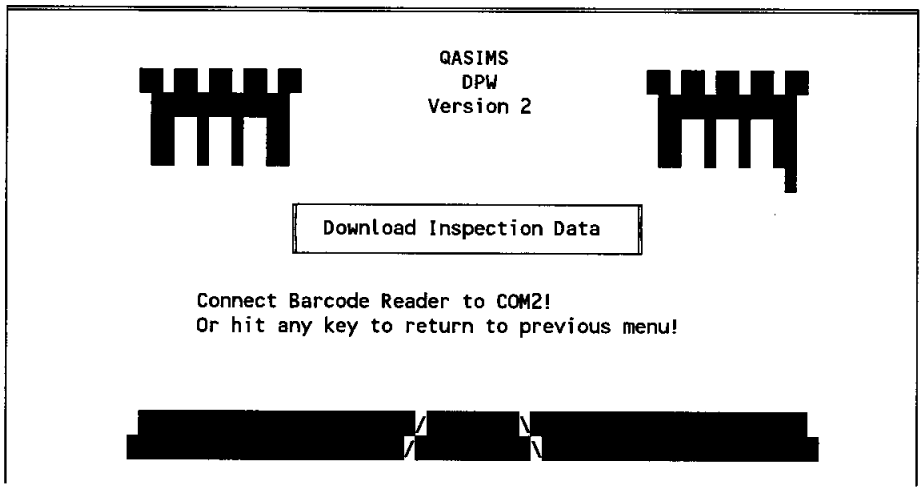
Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

The Inspections Results Menu calls up the downloading, monitoring and results evaluation screens as follows:

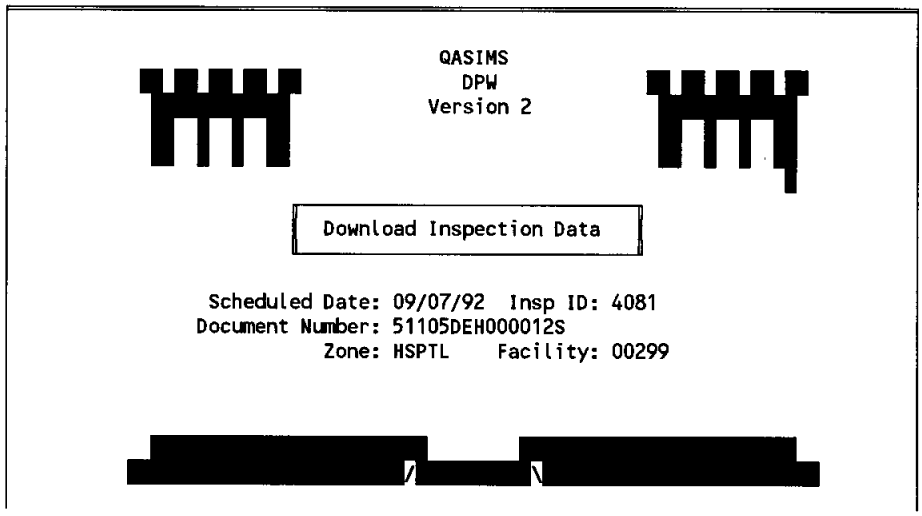
D-1 BARCODE WAND DATA:

Screen D-1 directs the uploading procedure after the Microwand Barcode Reader is properly hooked-up to the PC. When data error occurs during the data uploading process, QASIMS prompts user to correct the inspection information on the screen as shown on Screen D-1.1. Details of this data uploading procedure are provided in Appendix D.

D-1 DOWNLOAD INSPECTED DATA FROM BARCODE READER



D-1.1 IDENTIFICATION OF DOWNLOADING INSPECTION DATA



POSSIBLE WARNING FLAG:
" Wrong Inspection Item!
Do you want to correct this inspection(Y/N)?"

D-2 REVIEW/EDIT INSPECTION RESULTS

Screen D-2 shows the results of each task inspection with the scoring or pass/fail results. Any amendments to Screen D-2.1.2a and D-2.1.2.b are saved by F10. On the screen D-2.1.2a, F3 adds an inspection scoring block to this screen (D-2.1.2.b), allowing the user to assign scoring values and related inspection information.

D-2 INSPECTION RESULTS MENU

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
DPW

Version 2.0

Insp. Results Menu

Return to Results Processing Menu
1 Edit Original Inspection Results
2 Edit Repeated Inspectoin Results

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

D-2.1 EDIT ORIGINAL INSPECTION TASKS
D-2.1.1 Select Sampled Data File(s) from Provided Listing

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Edit Original Insp. Tasks

Select sample data file to edit.

Population File Name	Sample File Name	Description
PQASIMS1.DBF	SQASIMS1.DBF	Test QASIMS's sample.
PQASIMS1.DBF	SSOTEST.DBF	Print Test sample.

N:Next P:Prev F:First L:Last S:Seek E:Edit D:Delete A:Append Q:Quit
Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

D-2.1.2 Downloaded Inspection Results Processing

D-2.1.2.a. Original Inspection Results (Same for reinspection)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Original Insp. Tasks

              Edit Downloaded Inspection Results
   Contr. #: DABT01-96-D-0001
     CLIN #: 001AF Sub_#:07  Typ:R  DOC_ID: 01252FM030496R   Ph: N/A
  QA Plan #: 006  Perform Emergency Service Orders
    Created: 02/27/96  Completed: 02/29/96  Pri: 1    Frequency: N
   RPF Inst: 01252      Facility: 21022    Unit: B
       Task: 99     Shop:510      Sch. Insp Date:   /  /      Pass:F
      Insp.:       Start:03/12/96 13:37   End:03/12/96 13:38  Miss:F
  Inspector: 01 Perform By: NON  Reinsp:   /  /     Remarks:See Memo

   Total Record #:          2                          Record ID: 0001

 N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
 Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
 Hit ESC to exit, F3 to edit assigned Scores.
```

D-2.1.2.b. (Review) Inspection Scoring (same for reinspection)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Original Insp. Tasks

              Edit Downloaded Inspection Results
   Contr. #: DABT01-96-D-0001
     CLIN #: 001AF Sub_#:07  Typ:R  DOC_ID: 01252FM030496R   Ph: N/A
  QA Plan #: 006  Perform Emergency Service Orders
    Created: 02/27/96  Completed: 02/29/96  Pri: 1    Frequency: N
   RPF Inst: 01252      Facility: 21022    Unit: B
       Task: 99     Shop:510      Sch. Insp Date:   /  /      Pass:F
      Insp.:       Start:03/12/96 13:37   End:03/12/96 13:38  Miss:F
  Inspector: 01 Perform By: NON  Reinsp:   /  /     Remarks:See Memo
```

Inspection Scores

#	Description	MADR	Unit	(%)	Score	Remarks
01	Response	2	%	50	P	<Memo>
02	Completion of Work	2	%	20	P	<Memo>

```
 Type Score. 'P' for Pass, 'F' for fail.
 ↑↓ scrolls;  ESC Quit;  F10 Save Changes.
```

F3 KEY ON SCREEN D-2.1.2a ACTIVATES THIS SCREEN.

D-3 RECORDS & VALIDATIONS OF CUSTOMER COMPLAINTS

In the cost-conscious DPW maintenance operations, customer comments and complaints are a cost-free QA inspection resource. QASIMS permits this vital link by recording customer complaint and resolution elements.

The D-3.1 multi-phase input screen accepts customer and contractor information, completion/resolution dates, and a validation sign-off.

```
D-3.1   EDIT CUSTOMER COMPLAINTS
a.  Customer Information
b.  Contract Information
c.  Complaint Resolution
d.  Validation Record

        QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Edit Customer Complaints

                    Customer Information
   Customer Organ.: Fam House  Name: Mr. Ed Smith
       Report Date: 11/21/94   Time: 09:04 Complaint: See Memo

                    Contract Information
    Contr #:       Sub_#:      QA Plan #:
     Doc_ID:                   Ph:      Fac:        Unit:

                    Complaint Resolution
    Inform contractor on:   /  /     :     Response: See Memo

                    Validation Information
   Validated: F  On:   /  /    By:

    Total Record #:          1

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

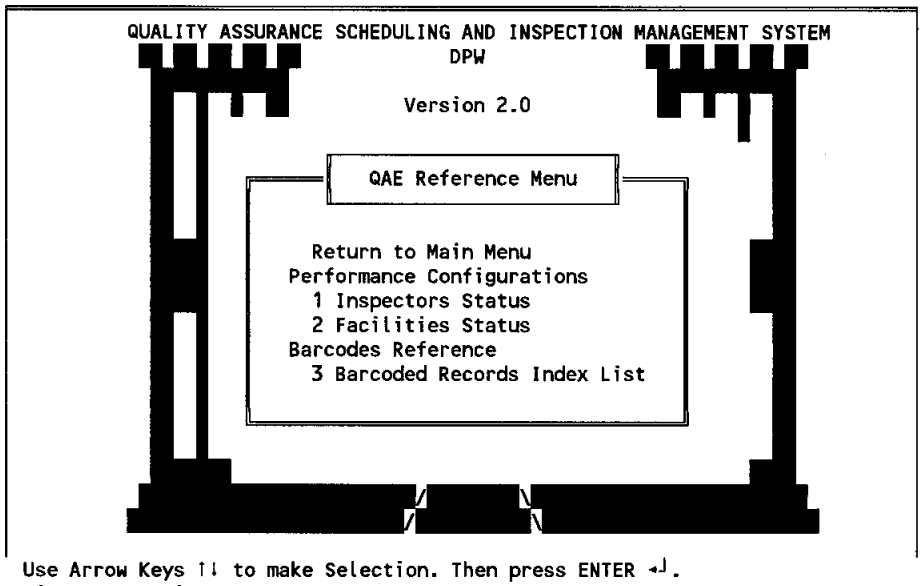
SECTION E. QA INSPECTION OPERATIONS REFERENCE DATA

Objective: *Provide a resource status and barcoded reporting records.*

General: This section allows the Program User or authorized QAE's access to the QASIMS' database to get information about installation resources and contract information printed with barcode on it.

Guidance: Selection of the fifth entry in the Main Menu will bring up a **QAE Reference Menu** which accesses a resource status review of QAE inspectors and installation facilities; it also permits to have a printout of contract information with barcode on it.

E. QA INSPECTION OPERATIONS SUMMARIES
QAE REFERENCE MENU



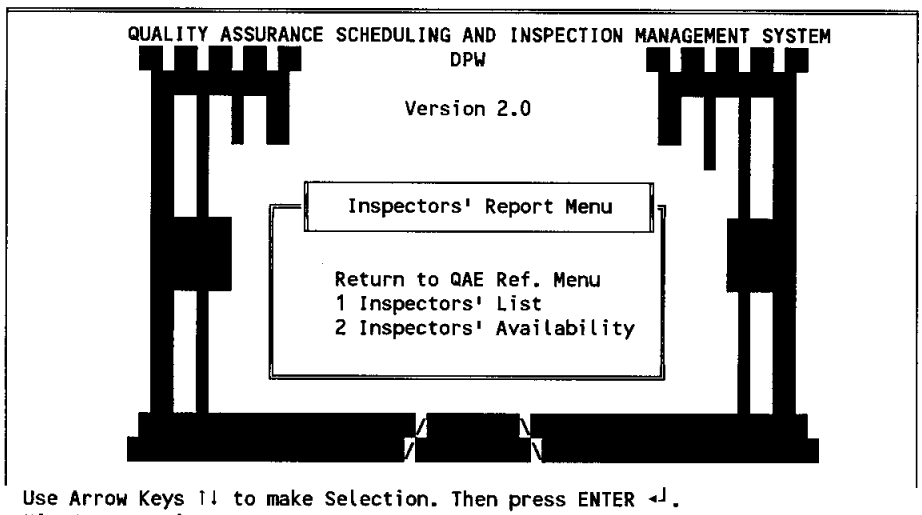
Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

E-1 QAE Operations Performance Configurations

The first highlighted lines of QAE Reference Menu is the Performance Configuration - Inspector's Status entry which calls up the Inspectors' (Status & Availability) Report Menu. This accesses a series of screens which defines the availability and status of active QAE Inspectors. From the initial Screen **Key F10** will bring up the sort-precedent alternatives and the report routing selections of a send: to screen, to a disk file, or to a printer.

If the Screen Display entry is chosen, Screen E-1.2a or E-1.2b will appear, This screen is the first page of the QAE Inspectors Availability Roster.

E-1. INSPECTORS (STATUS) REPORT MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

The first entry of The Inspectors Report Menu brings up Submenu E-1, and the first entry of this submenu calls up an E-1.1 Series of four Information and Data Input Screens.

E-1.1 Inspectors List: The screens launched by the first choice in the F-1 Inspectors' Report Menu include:

Screen E-1.1 a: Provides the range of inspectors (first and last) in the Inspectors List, press **F8** for starting date control or **F10** to continue to the next screen.

E-1.1. QAE INSPECTORS LIST (ROSTER)

E-1.1.a. Inspector Range (First & Last Numbered Inspectors Identified)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
[redacted]                DPW                [redacted]

                    Inspectors' List

                  Inspector Range
Inspector ID:  Start: 01  SIXTO        COLLANTES
                End: 12  RANDY        THORNE

[redacted]
Type Starting Inspector ID.
Hit ESC to exit, F10 to continue.  F8: List
```

Screen E-1.1 b: Provides a <u>sorting order</u> development of the Inspectors List; pick the sorting order and press **F10** for the next screen.

E-1.1.b. Specify a Sorting Order

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
[redacted]                DPW                [redacted]

                    Inspectors' List

Inspector
                    Give a Sorting Order

                    Description      Order

                    INSPECTOR ID
                    LAST NAME

[redacted]
Type Sorting Order by Number.
↑↓ scrolls;  ESC Quit;  F10 Save Changes
```

Screen E-1.1 c: Provides a user selection for routing the Inspectors Listing; IF a screen destination is selected, the report screens will appear.

E-1.1.c. Provide an Output Destination for the Inspectors Listing

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
DPW

Inspectors' List

Output Destination

Return to Previous Screen
Send to Printer
Display on the Screen
Send to File

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

The second entry of Submenu E-1 calls up the Inspector Availability Report. Again, from this Screen **F10** will bring up the sort-precedent alternatives and the report routing directions by the user. The choices are: to the screen, to the database (w/a filename), or to a PC-designated printer.
If the Screen Display entry is chosen, Screen E-1.2 will appear. This screen is the first page of the total QAE Inspectors Availability Roster.

View Report Screen: Will show the first page of the Inspector List Report; subsequent pages are brought up by the scroll command (**PgDn Key**). [At this point, the user may press the **F2 Key** to return to the Inspector List Report range to decide if a hard copy is too voluminous.]

EXAMPLE OUTPUTS

E-1.1.d. INSPECTOR LIST

Inspector List
Date: 02/23/95

ID	Name		Phone	Start
01	SIXTO	COLLANTES	(703)806-3132	02/08/93
02	ROBERT	GALLAHAN	(703)806-3132	02/08/93
05	FLOYD	HANDY	(703)806-3132	02/08/93
07	VIRGINIA	HOUCHIN	(703)806-3132	02/08/93
08	ROBERT	D KEESEE	(703)806-3132	03/22/93
09	FRANK	MEADE	(703)806-3132	02/08/93
10	ROBIN	MYERS	(703)806-3132	02/08/93
12	RANDY	THORNE	(703)806-3132	02/08/93

Page: 1
PgDn,PgUp to scroll, F2 to see the report range, ESC to Quit.

E-1.2.a. INSPECTOR AVAILABILITY

Inspector Availability
Date: 02/23/95

ID	Name		SUN	MON	TUE	WED	THU	FRI	SAT
01	SIXTO	COLLANTES	0	0	640	640	640	640	0
02	ROBERT	GALLAHAN	0	640	640	640	640	640	0
05	FLOYD	HANDY	0	640	640	640	640	640	0
07	VIRGINIA	HOUCHIN	0	640	640	640	640	640	0
08	ROBERT	D KEESEE	0	640	640	640	640	640	0
09	FRANK	MEADE	0	640	640	640	640	640	0
10	ROBIN	MYERS	0	640	640	640	640	640	0
12	RANDY	THORNE	0	640	640	640	640	640	0

Page: 1
PgDn,PgUp to scroll, F2 to see the report range, ESC to Quit.

E-2 FACILITY CONFIGURATION DOCUMENTATION:

The second entry of Menu E calls up a Facilities List and a Facilities Status Report. Again, from this Screen **F10** will bring up the sort-precedent alternatives and the report routing selections of: to screen, to the database (w/a filename), or to a printer. If the Screen Display entry is chosen, Screen E-1.2 will appear, This screen provides the assigned units of each Facility Listing.

E-2 PERFORMANCE CONFIGURATION (PC) - FACILITIES
E-2.1 FACILITY LIST REPORT
E-2.1.a. Facility Range (Start & End of Facility Listing)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
[redacted]                DPW                [redacted]

                 Facility List Report

                    Facility Range
Facility:  Start: 00000  CHLORINATOR
             End: XLGTS  INSTALLATION EXTERIOR LIGHTING

[redacted]/[redacted]\[redacted]
```

Type Starting Facility Number.
Hit ESC to exit, F10 to continue. F8: List

E-2.1.b. EXAMPLE Facility List

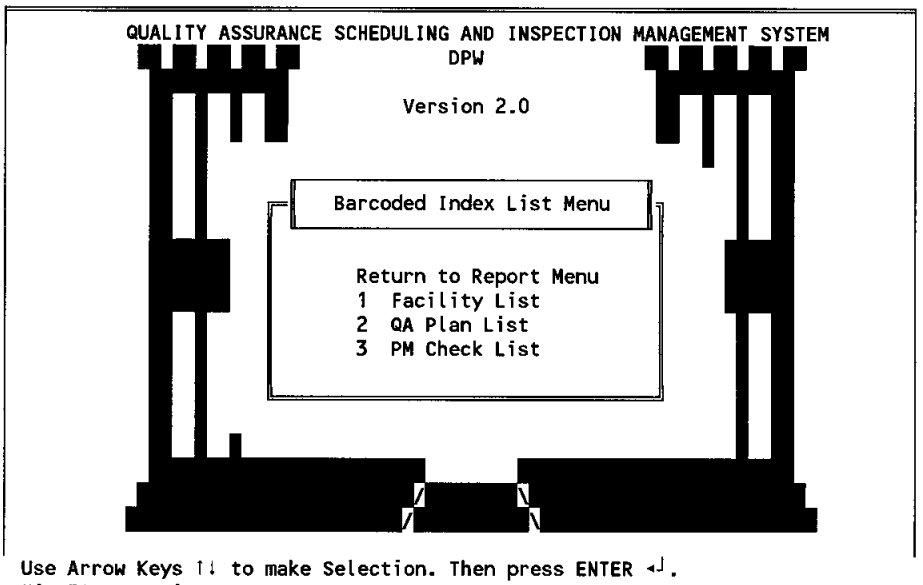
```
                    Facility List
                   Date: 02/23/95
Facility: 00020  OFFICERS CLUB (MACKENZIE HALL)

Unit        Description                    PM Guide
=================================================
20074       WATER TOWER                    NSPM
20075       FILTER                         NSPM
20076       FILTER                         NSPM
20077       PUMP                           99450
20078       CHLORINATOR                    61150
20079       CHLORINATOR                    61150
20081       FILTER                         NSPM
20082       FILTER                         NSPM
20083       FILTER                         NSPM
20084       PUMP                           99450
20085       CHLORINATOR                    61150
20086       CHLORINATOR                    61150
20087       AUTO WATER CONTROL SYS.        NSPM
                    Page: 16
```

PgDn,PgUp to scroll, F2 to see the report range, ESC to Quit.

E-3 QA BARCODED LISTS

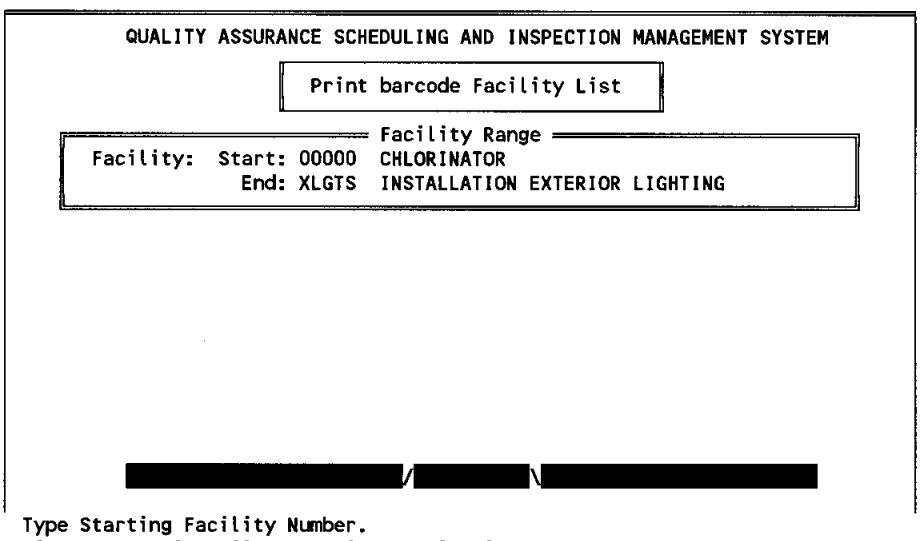
This section allows a user to print barcoded lists of facilities, QA Plans, and PM Check Items.

E-3.1 BARCODED INDEX LIST MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

E-3.1.1 Print Barcoded Facility List
Facility Range



Type Starting Facility Number.
Hit ESC to exit, F10 to continue. F8: List

E-3.1.2 Print Barcoded QA Plan List
QA Plan # Range

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Print barcode QA Plan List

                         QA Plan # Range
QA Plan #: Start: 001AF  Perform Emergency Service Orders
             End: IJO    Special Projects (IJO)
```

Type Starting QA Plan Contract Number.
Hit ESC to exit, F10 to continue. F8: List

E-3.1.3 Print Barcoded PM Guide Check List
PM Guide # Range

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Print barcode PM Guide Check List

                         PM Guide # Range
PM Guide #:Start: 00100  Playground Equipment
             End: 99980  UPS SYSTEM
```

Type Ending Facility Number.
Hit ESC to exit, F10 to continue. F8: List

SECTION F REPORTS GENERATION.

Objective: *Provide printouts of sufficient quality that they may be used for management summaries, reports submittals, official contractor deficiency records, and other documentation purposes.*

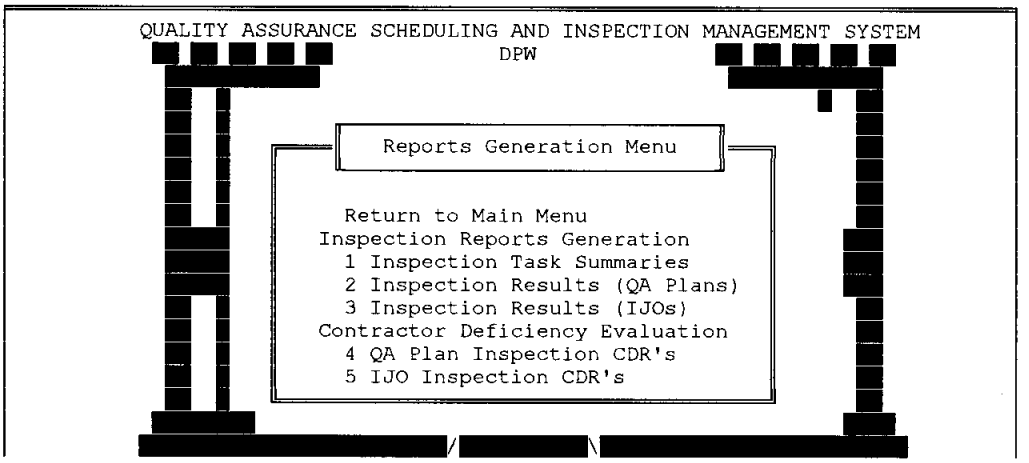
General: The productivity of QASIMS may now be demonstrated. Inspection results are downloaded into the QASIMS Program as described in Section H. These data are organized, analyzed, and reported by QASIMS according to DPW needs.

After the QAEs have completed their inspections from the identified listings, and this information has been downloaded and reviewed by management, the QASIMS Program has a portfolio of reports that may be generated on command. Although these reports are often customized for the Army installation, they usually include the following:

1: Inspection Task Summaries Report
2: Inspection Result Report
3: Contract Deficiency Evaluation Report

Guidance: You are now ready to generate the documentation appropriate for the just completed inspections of Section E. Pressing the ENTER key when the <u>sixth</u> entry of the Main Menu is highlighted will produce Documentation Menu F, i.e. - **The Reports Generation Menu.**

F. REPORTS GENERATION MENU



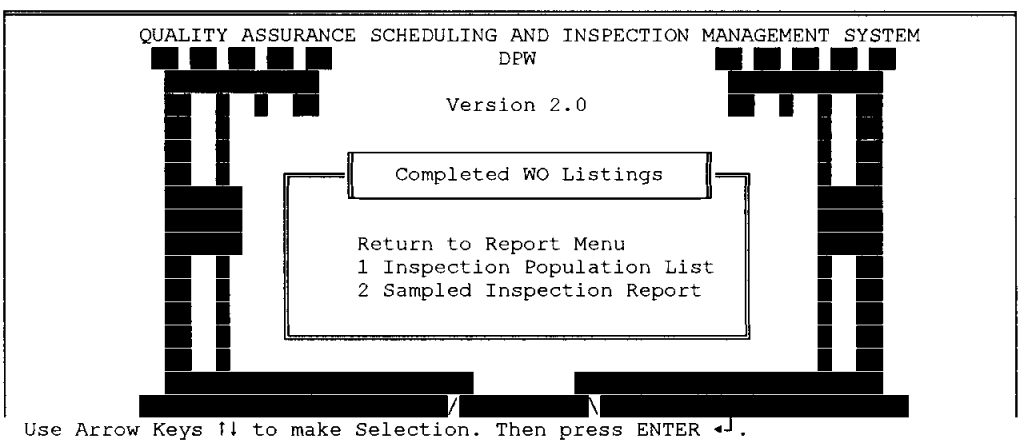
Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

This Reports Generation Menu has 5 entries representing 2 classes of reports, direct or summarized inspection results and contractor deficiency computations/statements.

F-1 INSPECTION TASK SUMMARIES

The WO population and sampling record is generated in a report for post-inspection assessments.

F-1. WO Listing MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

F-1.1 Generate a Population Report:

This report shows all the work orders saved under one population file selected by the user.

F-1.1. POPULATION REPORT
F-1.1.1 GENERATE POPULATION REPORT - SELECT DATA FILES

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Generate Population Report

Select population data file.

File Name	File Description	Creation Date	Time
P'OUN001.DBF	Test Population file.	02/14/95	09:44
PBOB001.DBF	Test Population for Bob.	02/07/95	13:05
PBOBH001.DBF	Test Population by Bob.	02/07/95	12:49
PDEC01.DBF	First Batch of DEC. 94	12/06/94	11:01
PDEC01TP.DBF	Total Population (DEC-01).	02/23/95	14:12
PDEC02.DBF	Test Population file #2.	12/07/94	09:14

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

F-1.1.2 Example of Population List

Population List
Date: 04/10/96
File Name: PQASIMS1.DBF Desc: Test Population File.

Contract Number	CLIN	Sub No	Inst #	Fac. #	Unit	Creation Date	Compl. Date
DABT01-96-D-0001	001AL	07	01252	06901		02/15/96	02/22/96
DABT01-96-D-0001	001AL	07	01252	00120	A	02/21/96	02/22/96
DABT01-96-D-0001	001AL	07	01252	21008	B	02/21/96	02/22/96
DABT01-96-D-0001	001AF	05	01252	21012	A	02/27/96	02/29/96
DABT01-96-D-0001	001AF	11	01252	21006	A	02/27/96	02/27/96
DABT01-96-D-0001	001AH	09	01252	09322	B	02/27/96	02/28/96
DABT01-96-D-0001	001AG	11	01252	21022	B	02/27/96	02/28/96
DABT01-96-D-0001	001AF	07	01252	21022	B	02/27/96	02/29/96
DABT01-96-D-0001	001AF	04	01252	20008		02/28/96	03/01/96
DABT01-96-D-0001	001AF	07	01252	21011	B	02/28/96	03/04/96
DABT01-96-D-0001	001AH	07	01252	21001	A	02/28/96	03/04/96
DABT01-96-D-0001	001AF	11	01252	21022	A	02/28/96	03/04/96

Page: 1
PgDn,PgUp to scroll, ESC to Quit.

F-1.2 Generate a Sample List Report:

This report shows sampled (selected) work orders for inspection saved under one sample file selected by the user.

F-1.2. Example of Sample List Report

Sample List
Date: 04/10/96
File Name: SQASIMS1.DBF Desc: Test QASIMS's sample.

Contract Number	CLIN	Sub No	Inst #	Fac. #	Unit	Creation Date	Compl. Date
DABT01-96-D-0001	001AF	07	01252	21022	B	02/27/96	02/29/96
DABT01-96-D-0001	001AG	07	01252	21007	B	02/29/96	03/04/96
DABT01-96-D-0001	001AH	07	01252	21007	B	02/29/96	03/04/96
DABT01-96-D-0001	001AL	07	01252	21008	B	02/21/96	02/22/96
DABT01-96-D-0001	001AX	01	01252	50104	1E	/ /	02/16/96
DABT01-96-D-0001	001BZ	01	01252	09802	1J	/ /	02/13/96
DABT01-96-D-0001	001CE	01	01252	05000	4A	/ /	02/13/96
DABT01-96-D-0001	001DX	01	01252	01010	1T	/ /	02/14/96

Page: 1

PgDn,PgUp to scroll, ESC to Quit.

F-2 RESULTS OF INSPECTIONS (QA PLAN or IJO)

These data are organized/analyzed/reported by QASIMS in the general QA Plan (or IJO) as specified by User inputs under the categories shown in the following submenu. Following screens are for `QA Plans', and the ones for `IJO' are similar to these.

F-2 QA PLAN INSPECTION RESULTS MENU

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                          DPW

                      Version 2.1

          QA Plan Insp. Result Menu

          Return to Report Menu
          Inspection Results List
          Reinspection Results List
          Reinspection Status Report
          Failed Inspection List
          Customer Complaint List

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.
```

F-2.1 GENERATE QA PLAN INSPECTION REPORT

f-2.1. QA PLAN INSPECTION REPORT
F-2.1.1 Select Sampled Data File

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

          Generate QA Plan Inspection Report

                Select Sample data file.

File Name      File Description                Creation Date    Time
SQASIMS1.DBF   Test QASIMS's sample.           03/11/96         11:19
SSOTEST.DBF    Print Test sample.              03/25/96         14:32

Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.
```

F-2.1.2 QA Plan Inspection Results Report

```
                    QA Plan Inspection Result
                            Date: 04/16/96

Contract #: DABT01-96-D-0001     CLIN #: 001AF  Sub #: 07
      Desc: Perform Emergency Service Orders
DOC_ID:01252FM030496R   Ph:N/A  Inst:01252  Fac:21022  Unit:B
Inspection:   Start: 03/12/96 13:37  End: 03/12/96 13:38
 Inspector: 01  RANDY THORNE
    Result:    Pass: F  Miss: F
 Reinspect: Date:   /  /    Performed by: NON
   Remarks:

Item  Description           Score  Remarks
=================================================================
01    Response                P
02    Completion of Work      P
03    Work Quality            F


                          Page: 1
PgDn,PgUp to scroll, ESC to Quit.
```

F-2.2 REINSPECTION RESULTS LISTINGS FOR THE QA PLAN

F-2.2. REINSPECTION RESULTS
F-2.2.1 Reinspection Results Report

```
                    QA Plan Reinspection Result
                            Date: 04/16/96

Contract #: DABT01-96-D-0001     CLIN #: 001AR  Sub #: 01
      Desc: Perform Emergency Service Orders
DOC_ID:01252FM030496R   Ph:N/A  Inst:01252  Fac:21022  Unit:A
Inspection:   Start: 03/14/96 13:37  End: 03/14/96 13:38
 Inspector: 01  RANDY THORNE
    Result:    Pass: P  Miss: F
 Reinspect: Date:   /  /    Performed by: NON
   Remarks:

Item  Description           Score  Remarks
=================================================================
01    Response                P
02    Completion of Work      P
03    Work Quality            P


                          Page: 1
PgDn,PgUp to scroll, ESC to Quit.
```

F-2.3 REINSPECTION STATUS (QA Plan)

F-2.3. REINSPECTION STATUS

F-2.3.1 Reinspection Status Report - Reinspection Date Spread

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Generate QA Plan Reinspection Status Report

Scheduled Reinspection Date Range
Start: 01/01/96    End: 04/16/96
```

Type ending date.
Hit ESC to skip, F10 when done.

F-2.3.2 QA Plan Reinspection Status Report

```
QA Plan Reinspection Status Report
Date: 04/16/96

==================================================================
Contract #: ACDC-1294-000011      CLIN #: 001AF  Sub #: 11
     Desc:
DOC_ID:51105FD028976R   Ph:N/A  Inst:51105  Fac:02473  Unit:
 Date:   Created: 10/26/95   Completed: 11/01/95   Reinspect: 01/15/96
   Remarks: Inspection Date: 08/01/00    Time: 28:59
==================================================================

Page: 1
```

PgDn,PgUp to scroll, ESC to Quit.

F-2.4 FAILED INSPECTIONS UNDER THE QA PLAN

F-2.4 FAILED QA PLAN INSPECTIONS
EXAMPLE OF FAILED INSPECTION STATUS REPORT

```
                    QA Plan Failed Insp. Result
                              Date: 04/16/96

Contract #: DABT01-96-D-0001     CLIN #: 001AF  Sub #: 07
      Desc: Perform Emergency Service Orders
DOC_ID:01252FM030496R   Ph:N/A  Inst:01252  Fac:21022  Unit:B
Inspection:   Start: 03/12/96 13:37  End: 03/12/96 13:38
 Inspector: 01  RANDY THORNE
    Result:    Pass: F  Miss: F
 Reinspect: Date:   /  /    Performed by: NON
   Remarks:

Item  Description           Score  Remarks
=====================================================================
01    Response                P
02    Completion of Work      P
03    Work Quality            F


                            Page: 1
PgDn,PgUp to scroll, ESC to Quit.
```

F-2.5 CUSTOMER COMPLAINT LIST

F-2.5. CUSTOMER COMPLAINT LIST

EXAMPLE OF QA PLAN CUSTOMER COMPLAINT REPORT

```
                    QA Plan Customer Complaint Report
                              Date: 04/16/96

=====================================================================
Contract #: DABT01-96-D-0001      CLIN #: 001CR  Sub #: 01
      Desc: MAINTAIN IMPROVED GROUNDS
DOC_ID:Varies           Ph:Var  Inst:01252  Fac:00304  Unit:
 Complaint: Date: 04/01/96  Time: 10:11
           Organ: FH          Name: Family Housing
    Nature: The garbage can has not been empty.
    Validated By: 10  ROBIN MYERS
 Informed to Contractor:  Date: 04/02/96  Time: 11:30
   Action by Contractor: Contractor will collect the garbage
=====================================================================




                            Page: 1
PgDn,PgUp to scroll, ESC to Quit.
```

F-3 CONTRACTOR DEFICIENCY EVALUATION (CDE)

The contractor deficiency evaluations of this section do not imply immediate monetary sanctions against the inspected contractor's work. They are inspector determinations/inputs to the COR and the DPW for a coordinated and final determination. If contractor deductions are upheld by the Contracting Officer, the reports from QASIMS can be used to support the QA position. Following screens are for `QA Plans', and the ones for `IJO' are similar to these.

F-3.1 GENERATION OF A CDR UNDER THE QA PLAN

F-3.1.a. Customer Complaint Validation Date Range

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Generate QA Plan CDR

              Customer Complaint Validation Date Range
Start: 01/01/94    End: 02/24/95

[redacted]
```

Type ending date.
Hit ESC to skip, F10 when done.

F-3.1.b. Aggregate (combine)Selected Inspection Files

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                    Generate QA Plan CDR

                 Select Inspection files to combine.

Population     Sample
File Name      File Name      Description
PBOB001.DBF    SBOB001.DBF    Test Sample for Bob.
PBOB001.DBF    SBOB002.DBF    Test Sample.
PBOB001.DBF    SBOB099.DBF
PDEC01.DBF     SDEC01.DBF     First Smaple of DEC 94.
PDEC02.DBF     SDEC02.DBF     Test sample #2.
PDEC03.DBF     SDEC03.DBF     The third Inspection file.
PDEC02.DBF     SDEC04.DBF
PTEST03.DBF    STEST03.DBF    Test Sample File (2/5/95)

[redacted]
```

Select your choice.
↑,↓ to scroll, ENTER ↵ to select/deselct, ESC to cancel, F10 Done.

F-3.1 GENERATION OF A CDR UNDER THE QA PLAN (CONTINUED)
F-3.1.c. EXAMPLE OF QA PLAN CONTRACT DEFICIENCY REPORT (CDR)

QA Plan CDR Report
Date: 04/10/96

Contract #: DABT01-96-D-0001 CLIN #: 001AF QA Plan #: 006
Population: 11 Sample: 1 Inspected: 1
Valid Customer Complaint: 1 Reinspected: 0
Reperformed by Contractor: 0 by Government: 0 by Others: 0

Performance Indicator--- #	Description	MADR------ Rate	Unit	Wt. (%)	Defect------ No	Rate	Missed Insp.	Adjust Factor
01	Response	2	%	50	0	0.00	0	0.25
02	Completion of Work	2	%	20	0	0.00	0	0.25
03	Work Quality	2	%	30	1	100.00	0	0.64

Page: 1
PgDn,PgUp to scroll, ESC to Quit.

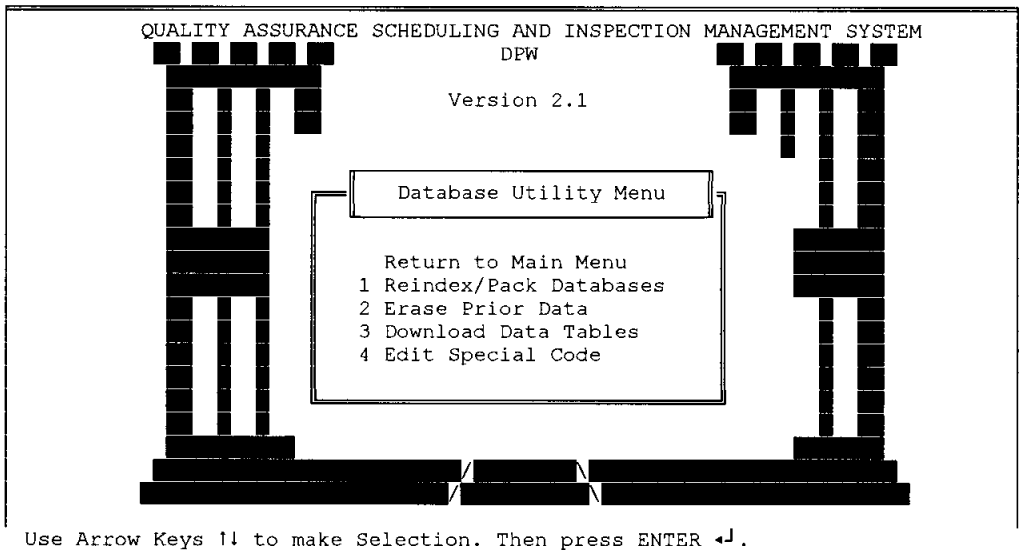
SECTION G. QASIMS DATABASE UTILITIES.

Objective: *Permit limited reconfiguration control of the QASIMS Program to accommodate variations in the application needs of different installations; permit QASIMS Program new-starts (reindexing) after possible database files corruption.*

General: Setting or verifying completed task relationships and QA performance responsibilities should be performed prior to implementation of the many routine operations performed by the QASIMS Program.

Guidance: Pressing the ENTER key when the <u>seventh</u> entry of the Main Menu is highlighted will produce Operations Menu G, i.e. - the **Database Utilities Menu.**

G: DATABASES UTILITY MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

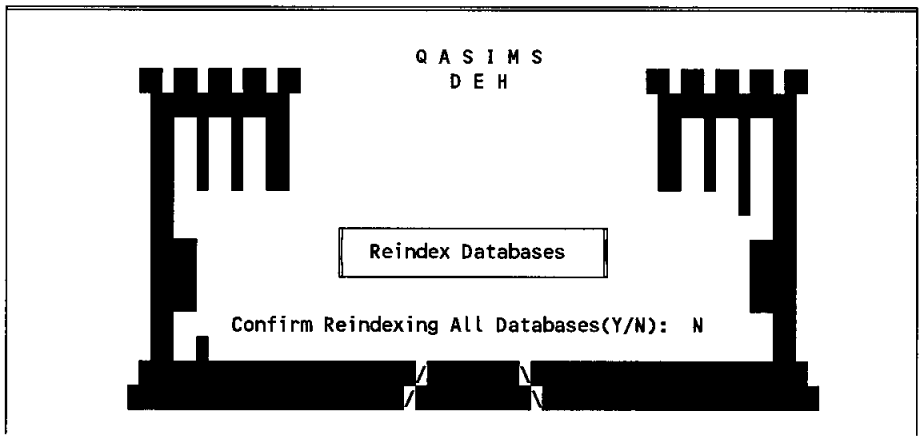
This Menu consists of four entries that yield: Display Screen G-1, A Reindex command; Submenu G-2, a means of

deleting old data (with confirmations); Submenu G-3, a means of building initial databases; Submenu G-4, a means of editing functional codes unique to each installation.

G-1. Reindex/Pack Databases

It is strongly recommended to run this option once a week to keep the databases packed. Running this option also fix any corrupted index files if it has any.

G-1 REINDEX DATABASES



G-2. Delete old data permanently

This option allows user to delete old data from data tables. This also enhances the performance of the system by compacting the size of the data tables.

G-2 DATA DELETION ACTIVITIES
DATA DELETION MENU

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
DPW

Version 2.0

Data Deletion Menu

Return to Utility Menu
1 Delete Pop/Sample/Insp Data
2 Delete Completed IJO Data
3 Delete Customer Complaint

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

G-2.1 DELETE POPULATION, SAMPLING AND INSPECTION FILES
G-2.1.a. Select Population Files to Delete

QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

Delete Pop, Smpl, and Inspection File

Select population files to delete.

File Name	Description	Creation Date
PBOB001.DBF	Test Population for Bob.	02/23/95
PBOB001.DBF	Test Population for Bob.	02/23/95
PBOB001.DBF	Test Population for Bob.	02/23/95
PDEC01.DBF	First Batch of DEC. 94	02/23/95
PDEC02.DBF	Test Population file #2.	02/21/95 ◄
PDEC03.DBF		02/23/95
PDEC02.DBF	Test Population file #2.	02/23/95
PTEST03.DBF	Test Population file (2/5/95)	02/23/95

Select your choice.
↑,↓ to scroll, ENTER ↵ to select/deselct, ESC to cancel, F10 Done.

G-2.1.b. Warning Screen

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

        Delete Pop, Smpl, and Inspection File

                    WARNING
   Delete population, sample and inspection records
   associated with population file PDEC02.DBF
   Perform this work(Y/N)?:  N
```

G-2.2 DELETE COMPLETED IJO INSPECTION TASKS
IJO Inspection Date Range (to be deleted)

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                Delete Completed IJOs

              IJO Inspection Date Range
 Start: 02/17/95    End: 02/24/95
```

Type starting date.
Hit ESC to skip, F10 when done.

G-2.3 DELETE CUSTOMER COMPLAINTS (CC)
CC Date Range

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM

                 Delete Customer Complaints

              Customer Complaint Date Range
 Start: 02/17/95    End: 02/24/95
```

Type starting date.
Hit ESC to skip, F10 when done.

G-3. Download Tables

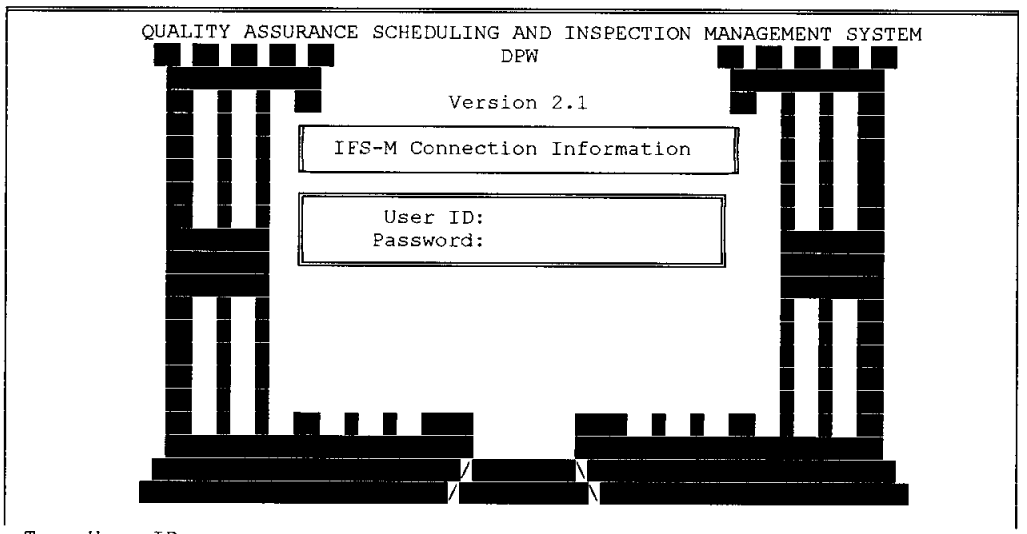
This option allows user to use IFS-M data tables to build initial databases in QASIMS.

G-3. TABLE DOWNLOAD MENU

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                          DPW

                       Version 2.1

          Table Source Selection Menu

          Return to Main Menu
          Download Table from IFS-M
          Get Tables from Alternative Diskette
```

Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

G-3.1 Downloading data tables from IFS-M
Enter User ID/Password to access to IFS-M.

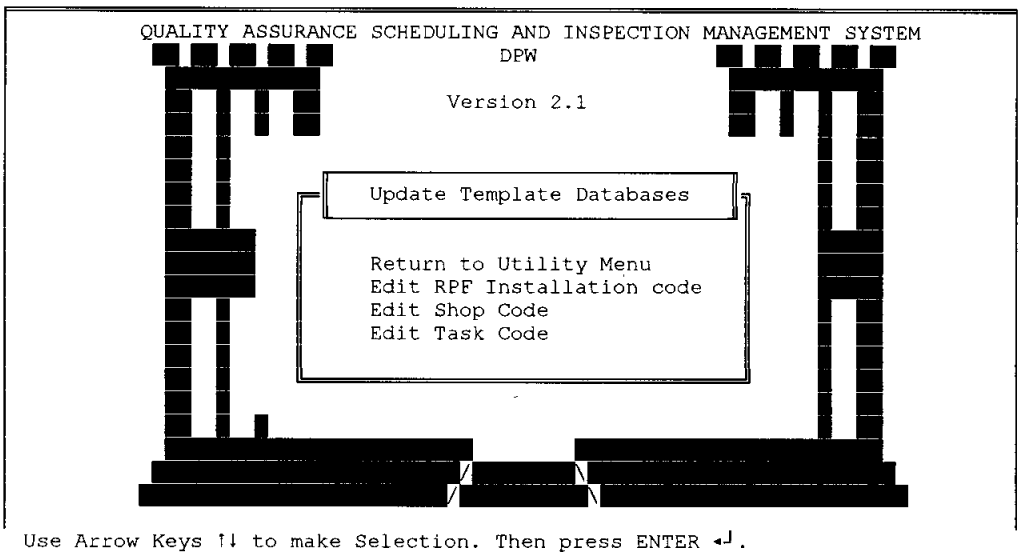


Type User ID.
ESC to Exit, F10 to save changes.

G-4. Update template Databases

This option allows user to edit installation unique data elements such as installation number, shop code, and task code.

G-4. DATABASE UPDATE MENU



Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

G-4.1. Edit RPF Installation Code.

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                          DPW

                       Version 2.1

              Edit/View RPF Installation Code

              RPF Installation Information
        Inst #: 01010  Name: ALLEN STAGEFIELD AL

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

G-4.2. Edit Shop Code

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                          DPW

                       Version 2.1

                   Edit Shop Code

              Shop Code Information
          Shop Code: 20
       Description: FIRE PREV DIV

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

G-4.3. Edit Task Code.

```
QUALITY ASSURANCE SCHEDULING AND INSPECTION MANAGEMENT SYSTEM
                                DPW
                              Version 2.1

                 Edit/View Inspection Task Code

                 Inspection Task Information
   Task Code: 3202    Desc: REP/INSTL TRANSFORMER

N:Next  P:Prev  F:First  L:Last  S:Seek  E:Edit  D:Delete  A:Append  Q:Quit
Use Arrow Keys ↑↓ to make Selection. Then press ENTER↵.
```

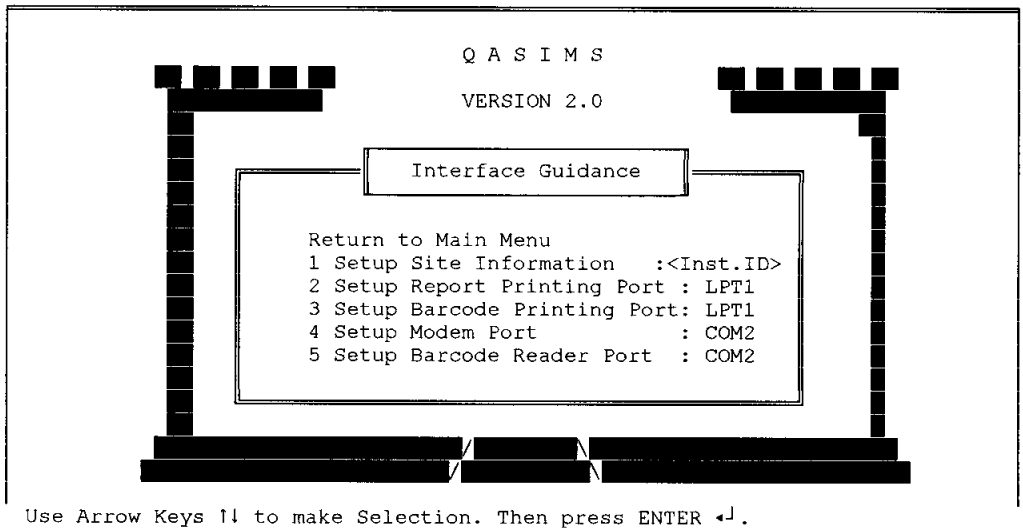
SECTION H SETUP INTERFACE.

Objective: *Provide guidance to the user for setting up the linkage to devices such as printer, modem and barcode reader.*

General: Setting or verifying completed task relationships and QA performance responsibilities should be performed prior to implementation of the routine operations functions performed by the QASIMS Program.

Guidance: Pressing the ENTER key when the eighth entry of the Main Menu is highlighted will give Operations Menu H i.e. - the **Interface Guidance Menu.**

H: INTERFACE PROGRAM SETUP GUIDANCE MENU



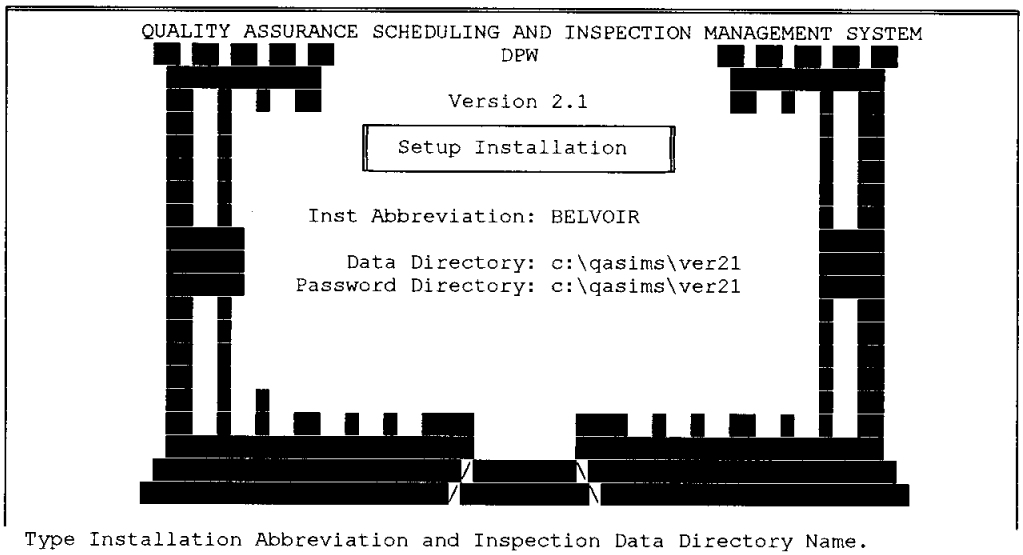
Use Arrow Keys ↑↓ to make Selection. Then press ENTER ↵.
Hit ESC to exit.

This menu identifies the PC connection points (ports) for report and barcode printing, for a modem, and for the barcode reading device.

H-1. Setup Installation.

This option allows user to setup data directory and password directory if those directories are different from the one where QASIMS has been installed. This is mainly for `Multi-User' setup.

H-1 SETUP INSTALLTION

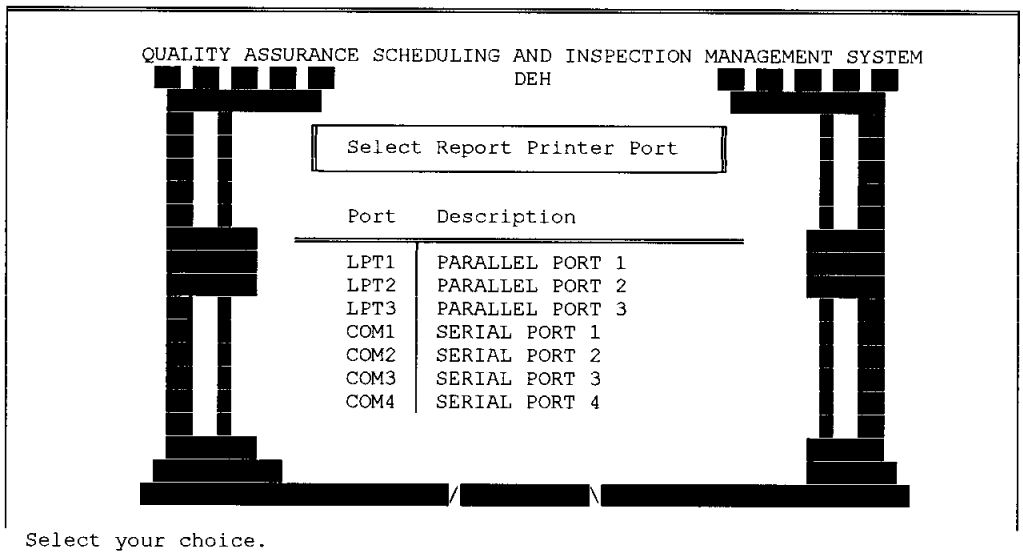


Type Installation Abbreviation and Inspection Data Directory Name.
Hit ESC to Exit, F10 to save changes.

H-2. Setup Text Printer Port.

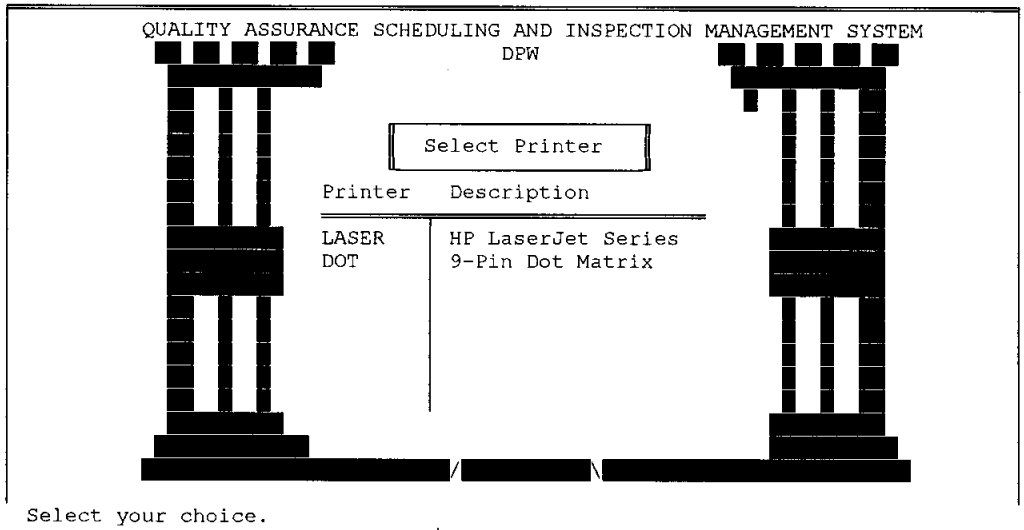
This option allows user to select printer ports where printer is connected. User can use different printer to print text reports and barcode reports. This option is for selecting the printer for the normal text printouts. User also can use network printer port. If the computer is connected to the network.

H-2.1 SELECT PRINTER PORT



Select your choice.
↑, ↓, PgUp, PgDn to scroll, ENTER to select, ESC to cancel.

H-2.2 SELECT PRINTER TYPE

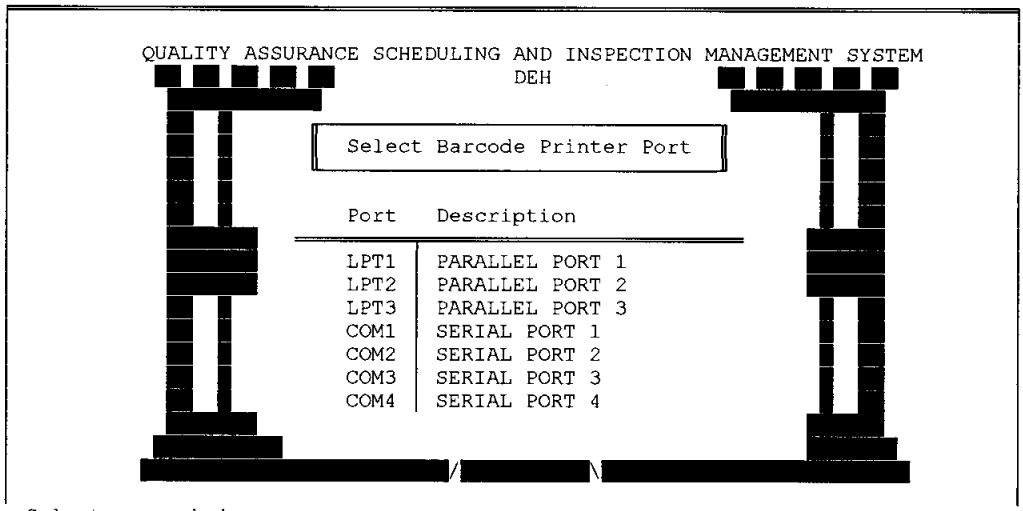


Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

H-3. Setup Barcode printer Port

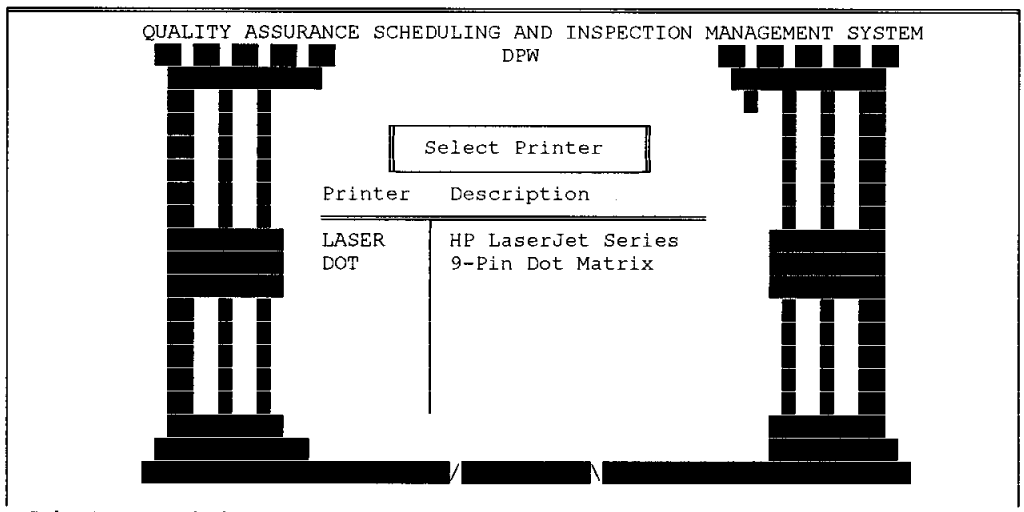
This option allows user to select barcode printer ports where printer is connected. User can use different printer to print text reports and barcoded reports. This option is for selecting the printer for the barcode printouts. User also can use network printer port if the computer is connected to the network.

H-3.1 SELECT PRINTER PORT



Select your choice.
↑, ↓, PgUp, PgDn to scroll, ENTER to select, ESC to cancel.

H-3.2 SELECT PRINTER TYPE

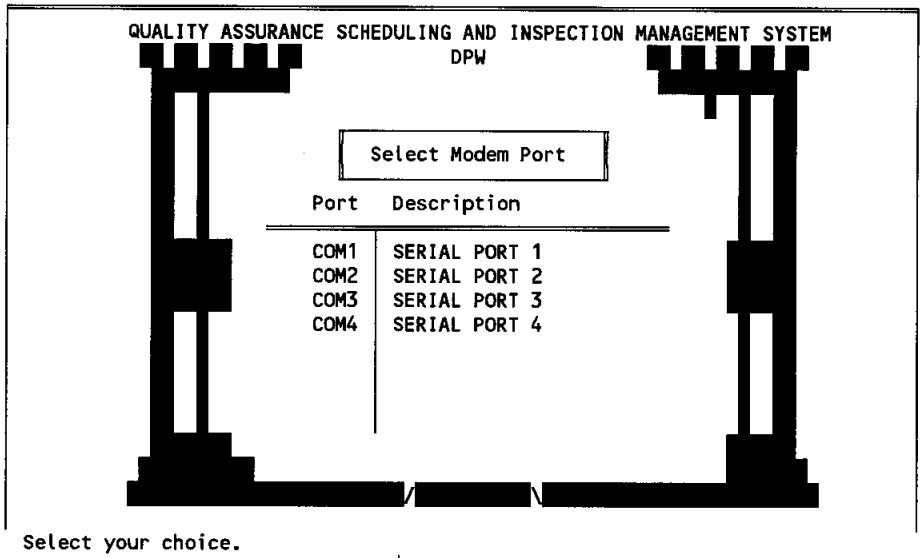


Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

H-4. Select Modem Port

If user is using modem to connect to IFS-M, this option shall be used to setup modem port.

H-4. SELECT MODEM PORT

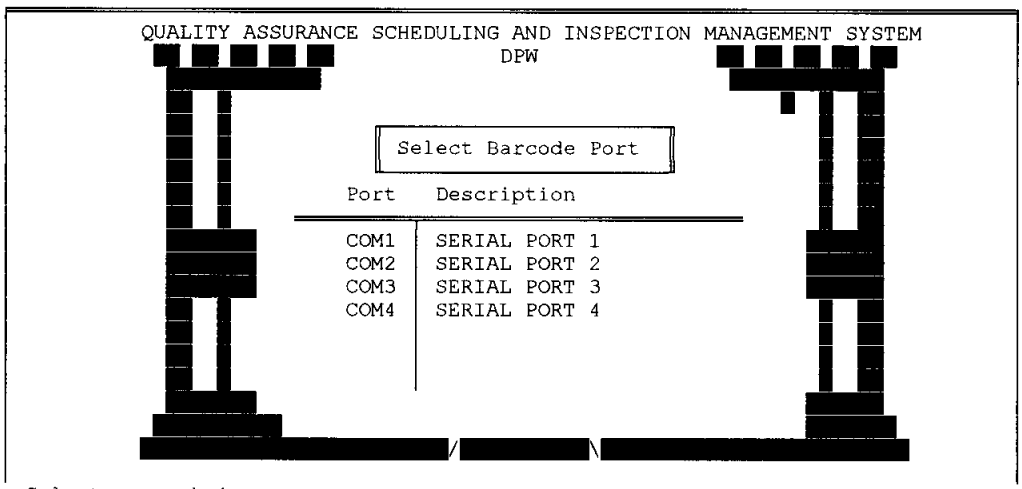


Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

H-5. Barcode Reader Port

If user is using barcode wand as a data collection device, this option shall be used to setup which serial port is used to upload data from barcode wand to PC.

H-5. SELECT BARCODE READER PORT



Select your choice.
↑,↓,PgUp,PgDn to scroll, ENTER ↵ to select, ESC to cancel.

APPENDICES

APPENDIX A-1

GLOSSARY OF TERMS & ABBREVIATIONS

AQL(Acceptable Quality Level): The Maximum percent defective, number of defects per hundred units, or the number of defects in a lot, wherein performance will strill be considered satisfactory.

Attribute: The capacity a unit has of being either bad or good. The quality characteristic of a unit is either within the specified requirements or it is not.

Attribute Sampling: A form of acceptance sampling that grades a service as defective or not defective.

CA: Commercial Activities.

CDR(Contract Discrepancy Report): A formal, written documentation of contractor nonconformance or lack of performance for contracted work.

CLIN: Contract Line Item Number.

CMMIS: Computerized Maintenance Management Information System.

CPW: U.S. Army Center for Public Works.

KO/ COR(Contracting Officer/Contracting Officer representative): The Governmentofficer, or his/her authorized representative, designated to provide liaison with the contractor in one or several aspects of a contract.

CQCP (Contractor's Quality Control Plan): Contractor's system to control the equipment, systems, or services to ensure that requirements of the contract are performed.

Defect: Each instance of noncoompliance with a contract requirement. A defect may be cuased by either nonperformance or poor performance.

Defective Service: A Unit (sample) of service which contains one or more defects, or nonconformance with specified requirements.

DPW: Directorate of Public Works.

IFS-M: Integrated Facility System - Mini/Micro.

IJO: Individual Job Order.

Inspection: The critical examination of a structure, mechanism, system, or procedure to discover deficiencies.

Lot: A collection of service outputs from which a sample is drawn and inspected to determined conformance with the standard.

Lot Size: The number of service outputs in a lot.

M&R: Maintenance and Repair.

Performance Indicator: A characteristic of an output of a work process that can be measured.

PM: Preventive Maintenance.

PRS(Performance Requirements Summary): Identifies tasks that will be evaluated by the Government to assure contract performance standards are met by the contractor.

PWS(Performance Work Statement) : A document that accurately describes the essential and technical requirements for items, materials, or services, including the standards used to determnine whether the requirements of the contract.

Planned Sampling: A method of looking at a subjectively determined number of items in a lot, to form general conclusions about the quality of that lot against a standard.

QA(Quality Assurance): A method used by the Government to check goods or services to determine whether or not they meet the requirements of the contract.

QAE(Quality Assuracen Evaluator): A Governemnt employee who is trained in contract inspections, and who has the responsbility for inspecting work performed in accordance with contract requirements.

QASP(Quality Assurance Surveillence Plan): A Written plan that details what is to be evaluated, how evaluations are to be accomplished, frequencyof evaluations, evaluation parameters, sampling guides, inspection checklists, and other information that the QAE should have to provide effective QA.

QASIMS: Quality Assurance Scheduling and Inspection Management System.

QC: Quality Control

Random Number Table: A table of numbers arranged in a random fashion.

Random Sample: A sampling method whereby each service output in a lot has an equal chance of being selected.

Random Sampling: A method of looking at a few individual items in a lot to determine the quality of that lot against a standard.

RPMA: Real Property Maintenance Activities.

Sample: One or more service outputs drawn from a lot. The number of outputs in the sample is the sample size.

Sample Plan: A Government plan which indicates the AQL, the number of units from each lot which are to be inspected (sample size), and criteria for determining acceptability of the lots (acceptance and rejection numbers), It is used to develop the sample guide.

SO: Service Order

SOO: Standing Operation Order

Standard of Performance: The desired value or measure of a performance indicator.

Surveillance: Planned or random observations of the timeliness, accuracy, completeness and /or quality of services performed.

APPENDIX A-2

GLOSSARY OF REFERENCES

OMB Circular No. A-76 (Performance of Commercial Activities).

CFPP Pamphlet No. 4 (A Guide fro Writing and Administering Performance Statements of Work for Service Contracts).

MIL-STD-105E (Sampling Procedures and Tbles for Inspection by Attributes).

DA Pamphlet715-15 (Service Contract Administration).

Army FAR Supplement, Apppendix BB (Installation Support Services Contract Administation).

Federal Acquisition Regulation Part. 46 (Quality Assurance).

APPENDIX B

SOFTWARE ADMINISTRATOR INFORMATION

QASIMS Network Administrator/ Programmer's Note

QASIMS is the relational database management system running on DOS text mode. It is written using several languages, including Clipper 5.3 by 'Computer Associates', Microsoft C version 5.1 of Microsoft, and UDL (Universal Data Language) version 3.4 of HandHeld Products. Microsoft C routines are combined together with clipper routines in compiling and linking time, and UDL has been used to program the barcode reading device. QASIMS also calls for VCPROC.EXE program from inside, which is a part of VistaCom software (Army-wide communication software). VistaCom version 5.2 has been used when developing QASIMS version 2.1. QASIMS and VistaCom are combined together by using several batch files in the run-time. The following notes describe how to create each file to run QASIMS.

1. Basic Programming Requirement.

a. Clipper version 5.3 for DOS (Product of Computer Associates): Database Compiler

Address: Computer Associates International, Inc.
One Computer Associates Plaza
Islandia, NY 11788-7000
Phone 800-225-5224

b. SilverComm for Clipper version 1.0 or above (Product of SilverWare Inc.): Serial Communication Library for the barcode reader and PC interface functions. The specific name of the library used is "SWASYNC.LIB".

Address: SilverWare Inc.,
3010 LBJ Freeway, Suite 740
Dallas, TX 75234
Phone 214-247-0131

c. Microsoft C version 5.1 or above (for DOS): The library named "LLIBCE.LIB" is necessary to link two object files written in C (RANDINT.OBJ, RANDSETU.OBJ). These two object files are used to generate random numbers to create sample inspection jobs out of population. Therefore, if you want to write random number generating function using clipper, then you do not need this C compiler. These two C functions are called by PROCEDURE named "SEL_SMPL", which is included in "SCH1.PRG".

Address: Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

d. Blinker version 3.2 (Product of Blink Inc.) : Dinamic Linker to generate QASIMD.EXE, which is a main module of QASIMS. Since Clipper version 5.3 comes with its own linker as well, this is an optional package.

Address: Blink Inc.
8001 W. Broad St.,
Richmond, VA 23294

e. Universal Data Language (UDL) version 3.4 or above (Product of Hand Held Products): Compiler generating MICROWAND model III or IIIe barcode reader program, loading it into barcode reader. This compiler also generates HEX file to load the program to an EPROM (Erasable Programmable Read Only Memory).

Address: Hand Held Products
Charlotte, NC 28226
Phone: 704-541-1380

f. MICROWAND IIIe (Product of HandHeld Products): This hardware is a programmable barcode reader with 128Kilo-Bytes of RAM (Random Access Memory) in it. The program can either be loaded to the part of RAM, or to an EPROM. This product is compatible with Universal Data Language listed in above paragraph e.

g. EPROM Module (Model DIP48-1. Product of DATA I/O): This hardware/software package is used to load the barcode reader program to an EPROM.

Address: Data I/O Corporation
10525 Willows Road N.E.,
P.O.Box 97046
Redmond, Washngton 98073-9746
Phone: 206-881-6444

2. Executable Files in QASIMS (file extension: .EXE, OVL)

2-A. QASIMD.EXE : This is a main module written in clipper 5.3, combined with two Microsoft C functions.

2-B. OVERLAY MODULES: RAND.OVL, GLOB.OVL, INSPECT.OVL, JOB.OVL, REPORT.OVL, SCHEDUL.OVL, SETUP.OVL

3. Batch files in QASIMS:

Several batch files are used to handle the procedures calling external module, and returning from it (VistaCom).

3-A. QASIMS.BAT: This is a batch file for initiating QASIMS.

3-B. QAS.BAT: This is called by QASIMS.BAT, and calls QASIMD.EXE with two parameters. First parameter indicates whether the program visited VistaCom or not ("4" indicated the program is returning from VistaCom).

3-C. GO_HOME.BAT: This batch file is created within QASIMD.EXE module to direct the QASIMS after termination of the processing.

3-D. V.VAT: This batch file is used to allow user put necessary command lines to access to VistaCom. QASIMS is using communication script file named QASIMS.PF to access IFS-M through VistaCom. If you need to setup any parameter or driver before accessing VistaCom, put those lines in this batch file. QASIMS.PF is designed to be compatible to most of the login environment to IFS-M. However, if you are not able to access to IFS-M by using QASIMS.PF, please modify QASIMS.PF to meet your current login process.

3-E. VC.BAT: This batch file calls VCPROC.EXE.

4. Source Codes and Compile/Line Process

QASIMS has been compiled using Clipper version 5.3 except two object modules written in C. These two modules (are compiled by using Microsoft C version 5.1 At the time of compiling source codes, .CLP (.CLP file extension) files are used to generate one object file(.OBJ file extension) for each group of source code files (.PRG file extension). After compiling all the source code, BLINKER version 3.2 is used to link all the object modules to libraries. All of these compiling/linking processes are done by using QASIMS.RMK and RMAKE.EXE (make utility) comes with Clipper version 5.3.

For more detailed information, refer to QASIMS.RMK in QASIMS source code diskette. Following is the list of .CLP files with associated source code files in it. Two object files written in C are not listed below.

MAIN.CLP:	MAIN.PRG
ERRORSYS.CLP:	ERRORSYS.PRG
GLOB.CLP:	CL_GLOB.PRG, CL_MENUS.PRG, CL_COLOR.PRG, CL_ERROR.PRG, CL_SYS.PRG, CL_VALID.PRG, CL_QASIM.PRG, CL_PRINT.PRG

INSPECT.CLP:	INSPECT.PRG, INSP2.PRG, INSP3.PRG, INSP4.PRG
JOB.CLP:	TASK1.PRG, TASK2.PRG, TASK3.PRG, TASK4.PRG, TASK5.PRG, TASK6.PRG
REPORT2.CLP:	REPORT5.PRG, REPORT51.PRG, REPORT52.PRG, REPORT53.PRG, REPORT54.PRG
REPORTS.CLP:	REPORTS.PRG, TASK_SHT.PRG, COM_SHT.PRG, REPORT1.PRG, REPORT11.PRG, REPORT2.PRG, REPORT3.PRG, REPORT4.PRG, REPORT41.PRG
SCHEDUL.CLP:	SCH1.PRG, SCH2.PRG, SCH3.PRG
SETUP.CLP:	SETUP.PRG, EMP1.PRG, EMP2.PRG, FAC1.PRG, FAC2.PRG
SETUP2.CLP:	QA_PLAN1.PRG, QA_PLAN2.PRG, QA_PLAN3.PRG, QA_PLAN4.PRG, CHK_LST1.PRG, CHK_LST2.PRG
UTIL.CLP:	UTIL.PRG, UTIL2.PRG, UTIL3.PRG

In the linking process, QASIMS.LNK, CL530MAX.LNK, and link file is used with BLINKER version 3.2. For more detailed information, refer to QASIMS.LNK and CL530MAX.LNK file in QASIMS source diskette. Two external libraries named SWASYNC.LIB and LLIBCE.LIB are used as been discussed on ▒1. Basic Programming Requirement▒.

5. Barcode program source code

Barcode program is generated by using UDL (Universal Data Language). The source code for this program is in QASIMS.UDL. For the compiling and loading process, refer to the manual comes with the UDL compiler.

APPENDIX C

DATABASE STRUCTURE SUMMARY

System: QASIMS
Author: Yoon H Lim
Database Structure Summary

---

48 databases in the system

EMP.DBF
USER.DBF
ACCESS.DBF
SHOP.DBF
BASE.DBF
CONTRACT.DBF
CLIN.DBF
IJO.DBF
REINSP.DBF
QA_PLAN.DBF
QA_UNIT.DBF
QA_SCH.DBF
QA_PERF.DBF
TASK.DBF
INSP_HDR.DBF
INSP_SCR.DBF
RINS_HDR.DBF
RINS_SCR.DBF
SURV.DBF
CHANNEL.DBF
FREQUENT.DBF
CHK_LST.DBF
CHK_ITEM.DBF
PERFORM.DBF
COMPLAIN.DBF
RSED_ADJ.DBF
DOC_TYPE.DBF
FACILITY.DBF
UNIT.DBF
LARGE.DBF
CNVT.DBF
TMP_TYPE.DBF
PRINTER.DBF
SORT.DBF
PORT.DBF
SETUP.DBF
DOW.DBF
CMONTH.DBF
MADR_UNT.DBF
FILE_DIR.DBF
TMP_SIZE.DBF

```
   SMPLSIZE.DBF
   TMP_POP.DBF
   TMP_CDR.DBF
   TMP_SCR.DBF
   SCH_TMP.DBF
   TMP_MENU.DBF
   GET_PM.DBF
--------------------------------------------------------------------------------

Structure for database : EMP.DBF
Number of data records :         8
          Last updated : 04/10/96 at 13:29
Field  Field name  Type        Width    Dec    Start      End
    1  EMP_ID      Character       2               1        2
    2  EMP_LAST    Character      15               3       17
    3  EMP_FIRST   Character      12              18       29
    4  EMP_MID     Character       1              30       30
    5  PHONE1      Character      13              31       43
    6  PHONE2      Character      13              44       56
    7  S_DATE      Date            8              57       64
    8  EMP_IA_IND  Character       1              65       65
    9  MON         Numeric         4              66       69
   10  TUE         Numeric         4              70       73
   11  WED         Numeric         4              74       77
   12  THU         Numeric         4              78       81
   13  FRI         Numeric         4              82       85
   14  SAT         Numeric         4              86       89
   15  SUN         Numeric         4              90       93
   16  SELECT      Character       1              94       94
** Total **                      95


This database appears to be associated with index file/tag(s):
       : EMP_NAME.NTX  (EMP_LAST+EMP_FIRST)
       : EMP_ID.NTX  (EMP_ID)



--------------------------------------------------------------------------------


Structure for database : USER.DBF
Number of data records :         2
          Last updated : 04/25/96 at 13:39
Field  Field name  Type        Width    Dec    Start      End
    1  USER_ID     Character       9               1        9
    2  LAST        Character      15              10       24
    3  FIRST       Character      12              25       36
```

```
    4  MID         Character       1              37       37
    5  PASS        Character       5              38       42
** Total **                       43


This database appears to be associated with index file/tag(s):
       : ID.NTX  (USER_ID)
       : PWD.NTX  (PASS)
       : USER_NAME.NTX  (LAST+FIRST)


-------------------------------------------------------------------------------


Structure for database : ACCESS.DBF
Number of data records :       120
          Last updated : 04/10/96 at 13:29
Field  Field name  Type        Width    Dec    Start      End
    1  USER_ID     Character       9               1        9
    2  SCREEN_ID   Character       4              10       13
    3  MAIN_MENU   Character      15              14       28
    4  SUB_MENU    Character      15              29       43
    5  SCR_DESC    Character      15              44       58
    6  SELECT      Character       1              59       59
** Total **                      60


This database appears to be associated with index file/tag(s):
       : ACCESS.NTX  (USER_ID)
       : ACC_ID.NTX  (USER_ID+SCREEN_ID)


-------------------------------------------------------------------------------


Structure for database : SHOP.DBF
Number of data records :        80
          Last updated : 04/10/96 at 13:35
Field  Field name  Type        Width    Dec    Start      End
    1  SHOP_CD     Character       3               1        3
    2  SHOP_NAME   Character      20               4       23
    3  SELECT      Character       1              24       24
** Total **                      25


This database appears to be associated with index file/tag(s):
```

: SHOP.NTX (SHOP_CD)

Structure for database : BASE.DBF
Number of data records : 59
Last updated : 04/16/96 at 15:01

Field	Field name	Type	Width	Dec	Start	End
1	INST_NO	Character	5		1	5
2	INST_NAME	Character	30		6	35
3	SELECT	Character	1		36	36
** Total **			37			

This database appears to be associated with index file/tag(s):
: BASE.NTX (INST_NO)

Structure for database : CONTRACT.DBF
Number of data records : 1
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CONTR_TTL	Character	25		20	44
3	CONTR_AMT	Numeric	15	2	45	59
4	CONTR_NAME	Character	30		60	89
5	CONTR_PHON	Character	12		90	101
6	REMARK	Memo	10		102	111
7	SELECT	Character	1		112	112
** Total **			113			

This database is associated with the memo file: CONTRACT.DBT

This database appears to be associated with index file/tag(s):
: CONTRACT.NTX (CONTR_NO)

Structure for database : CLIN.DBF
Number of data records : 99
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	CLIN_DESC	Character	25		25	49
4	CHAN_CD	Character	1		50	50
5	CLIN_AMT	Numeric	14	2	51	64
6	CLIN_QTY	Numeric	9		65	73
7	CLIN_UNIT	Character	3		74	76
8	CLIN_UR	Numeric	12	2	77	88
9	SELECT	Character	1		89	89
** Total **			90			

This database appears to be associated with index file/tag(s):
: CLIN.NTX (CONTR_NO+CLIN_NO)

Structure for database : IJO.DBF
Number of data records : 2
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	DOC_ID	Character	15		27	41
5	DOC_TYPE	Character	1		42	42
6	PHASE_CD	Character	3		43	45
7	CRE_DATE	Date	8		46	53
8	CMP_DATE	Date	8		54	61
9	INSP_DATE	Date	8		62	69
10	SHOP_CD	Character	3		70	72
11	INST_NO	Character	5		73	77
12	FAC_NO	Character	5		78	82
13	UNIT_NO	Character	10		83	92
14	POC_NAME	Character	15		93	107
15	POC_PHON	Character	12		108	119
16	TASK_CD	Character	4		120	123
17	PRI	Character	1		124	124
18	FREQ_CD	Character	1		125	125
19	DESC	Character	64		126	189
20	LOC	Character	30		190	219

21	EMP_ID	Character	2	220	221
22	REMARK	Memo	10	222	231
23	REINSP	Logical	1	232	232
24	SELECT	Character	1	233	233
** Total **			234		

This database is associated with the memo file: IJO.DBT

This database appears to be associated with index file/tag(s):
: IJO.NTX (DOC_ID+PHASE_CD+INST_NO+FAC_NO+UNIT_NO)

Structure for database : REINSP.DBF
Number of data records : 4
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	SMPL_ID	Character	8		1	8
2	REC_ID	Character	4		9	12
3	CONTR_NO	Character	19		13	31
4	CLIN_NO	Character	5		32	36
5	SUB_CD	Character	2		37	38
6	DOC_ID	Character	15		39	53
7	DOC_TYPE	Character	1		54	54
8	PHASE_CD	Character	3		55	57
9	CRE_DATE	Date	8		58	65
10	CMP_DATE	Date	8		66	73
11	INSP_DATE	Date	8		74	81
12	SHOP_CD	Character	3		82	84
13	INST_NO	Character	5		85	89
14	FAC_NO	Character	5		90	94
15	UNIT_NO	Character	10		95	104
16	POC_NAME	Character	15		105	119
17	POC_PHON	Character	12		120	131
18	TASK_CD	Character	4		132	135
19	PRI	Character	1		136	136
20	FREQ_CD	Character	1		137	137
21	DESC	Character	64		138	201
22	LOC	Character	30		202	231
23	EMP_ID	Character	2		232	233
24	REMARK	Memo	10		234	243
25	REINSP	Logical	1		244	244
26	PERF_BY	Character	3		245	247
27	SELECT	Character	1		248	248

** Total ** 249

This database is associated with the memo file: REINSP.DBT

This database appears to be associated with index file/tag(s):

: REIN_CON.NTX (CONTR_NO+CLIN_NO+SUB_CD)

: REIN_DOC.NTX (SMPL_ID+REC_ID)

Structure for database : QA_PLAN.DBF

Number of data records : 161

Last updated : 04/11/96 at 15:05

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	PLAN_NO	Character	3		20	22
3	CLIN_NO	Character	5		23	27
4	SUB_CD	Character	2		28	29
5	DOC_ID	Character	15		30	44
6	PHASE_CD	Character	3		45	47
7	SHOP_CD	Character	3		48	50
8	EMP_ID	Character	2		51	52
9	PLAN_DESC	Character	40		53	92
10	DOC_TYPE	Character	1		93	93
11	FREQ_CD	Character	1		94	94
12	DELAY	Numeric	2		95	96
13	SURV_CD	Character	1		97	97
14	REMARK	Memo	10		98	107
15	SELECT	Character	1		108	108

** Total ** 109

This database is associated with the memo file: QA_PLAN.DBT

This database appears to be associated with index file/tag(s):

: QA_CONTR.NTX (CONTR_NO+CLIN_NO+SUB_CD)

: QA_DOC.NTX (DOC_ID+PHASE_CD)

: QA_SHOP.NTX (CONTR_NO+CLIN_NO+SHOP_CD)

: QA_PLAN.NTX (PLAN_NO)

Structure for database : QA_UNIT.DBF
Number of data records : 43
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	SHOP_CD	Character	3		27	29
5	INST_NO	Character	5		30	34
6	FAC_NO	Character	5		35	39
7	UNIT_NO	Character	10		40	49
8	SELECT	Character	1		50	50
** Total **			51			

This database appears to be associated with index file/tag(s):
: QA_UNIT1.NTX (CONTR_NO+CLIN_NO+SUB_CD)
: QA_UNIT2.NTX (CONTR_NO+CLIN_NO+SUB_CD+INST_NO+FAC_NO+UNIT_NO)

Structure for database : QA_SCH.DBF
Number of data records : 17
Last updated : 04/11/96 at 15:05

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	SHOP_CD	Character	3		27	29
5	DESC	Character	9		30	38
6	ABBR	Character	3		39	41
7	ORDER	Numeric	2		42	43
8	WORK_DATE	Date	8		44	51
9	SELECT	Character	1		52	52
** Total **			53			

This database appears to be associated with index file/tag(s):
: QA_SCH.NTX (CONTR_NO+CLIN_NO+SUB_CD)

Structure for database : QA_PERF.DBF
Number of data records : 400
Last updated : 04/11/96 at 15:05

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	SHOP_CD	Character	5		27	31
5	PERF_CD	Character	2		32	33
6	PERF_DESC	Character	20		34	53
7	MADR_NO	Numeric	3		54	56
8	MADR_UNIT	Character	3		57	59
9	PERCENT	Numeric	3		60	62
10	PERF_MEMO	Memo	10		63	72
11	SELECT	Character	1		73	73
** Total **			74			

This database is associated with the memo file: QA_PERF.DBT

This database appears to be associated with index file/tag(s):
: QA_PERF.NTX (CONTR_NO+CLIN_NO+SUB_CD+PERF_CD)

Structure for database : TASK.DBF
Number of data records : 2567
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	TASK_CD	Character	4		1	4
2	DESC	Character	30		5	34
3	SELECT	Character	1		35	35
** Total **			36			

This database appears to be associated with index file/tag(s):
: TASK.NTX (TASK_CD)

Structure for database : INSP_HDR.DBF
Number of data records : 2

Last updated : 04/24/96 at 14:57

Field	Field name	Type	Width	Dec	Start	End
1	SMPL_ID	Character	8		1	8
2	CONTR_NO	Character	19		9	27
3	CLIN_NO	Character	5		28	32
4	SUB_CD	Character	2		33	34
5	DOC_ID	Character	15		35	49
6	PHASE_CD	Character	3		50	52
7	DOC_TYPE	Character	1		53	53
8	START_DATE	Date	8		54	61
9	START_TIME	Character	5		62	66
10	END_DATE	Date	8		67	74
11	END_TIME	Character	5		75	79
12	INST_NO	Character	5		80	84
13	FAC_NO	Character	5		85	89
14	UNIT_NO	Character	10		90	99
15	EMP_ID	Character	2		100	101
16	PERF_BY	Character	3		102	104
17	REIN_DATE	Date	8		105	112
18	REMARK	Memo	10		113	122
19	PASS	Logical	1		123	123
20	MISS	Logical	1		124	124
21	REC_ID	Character	4		125	128
22	SELECT	Character	1		129	129
** Total **			130			

This database is associated with the memo file: INSP_HDR.DBT

This database appears to be associated with index file/tag(s):

: INSP_HDR.NTX (SMPL_ID)

: INSP_DOC.NTX (SMPL_ID+REC_ID)

Structure for database : INSP_SCR.DBF

Number of data records : 6

Last updated : 04/24/96 at 14:57

Field	Field name	Type	Width	Dec	Start	End
1	JOB_ID	Character	12		1	12
2	CONTR_NO	Character	19		13	31
3	CLIN_NO	Character	5		32	36
4	SUB_CD	Character	2		37	38
5	DOC_TYPE	Character	1		39	39
6	PERF_CD	Character	2		40	41

7	PERF_DESC	Character	20	42	61
8	MADR_NO	Numeric	3	62	64
9	MADR_UNIT	Character	3	65	67
10	PERCENT	Numeric	3	68	70
11	SCORE	Character	1	71	71
12	REMARK	Memo	10	72	81
13	SELECT	Character	1	82	82
** Total **			83		

This database is associated with the memo file: INSP_SCR.DBT

This database appears to be associated with index file/tag(s):
: INSP_SCR.NTX (JOB_ID)
: INSP_CON.NTX (CONTR_NO+CLIN_NO+SUB_CD+PERF_CD)

Structure for database : RINS_HDR.DBF
Number of data records : 0
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	SMPL_ID	Character	8		1	8
2	CONTR_NO	Character	19		9	27
3	CLIN_NO	Character	5		28	32
4	SUB_CD	Character	2		33	34
5	DOC_ID	Character	15		35	49
6	PHASE_CD	Character	3		50	52
7	DOC_TYPE	Character	1		53	53
8	START_DATE	Date	8		54	61
9	START_TIME	Character	5		62	66
10	END_DATE	Date	8		67	74
11	END_TIME	Character	5		75	79
12	INST_NO	Character	5		80	84
13	FAC_NO	Character	5		85	89
14	UNIT_NO	Character	10		90	99
15	EMP_ID	Character	2		100	101
16	PERF_BY	Character	3		102	104
17	REIN_DATE	Date	8		105	112
18	REMARK	Memo	10		113	122
19	PASS	Logical	1		123	123
20	MISS	Logical	1		124	124
21	REC_ID	Character	4		125	128
22	SELECT	Character	1		129	129
** Total **			130			

This database is associated with the memo file: RINS_HDR.DBT

This database appears to be associated with index file/tag(s):
: RINS_HDR.NTX (SMPL_ID)
: RINS_DOC.NTX (SMPL_ID+REC_ID)

Structure for database : RINS_SCR.DBF
Number of data records : 0
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	JOB_ID	Character	12		1	12
2	CONTR_NO	Character	19		13	31
3	CLIN_NO	Character	5		32	36
4	SUB_CD	Character	2		37	38
5	PERF_CD	Character	2		39	40
6	PERF_DESC	Character	20		41	60
7	MADR_NO	Numeric	3		61	63
8	MADR_UNIT	Character	3		64	66
9	PERCENT	Numeric	3		67	69
10	SCORE	Character	1		70	70
11	REMARK	Memo	10		71	80
12	SELECT	Character	1		81	81
** Total **			82			

This database is associated with the memo file: RINS_SCR.DBT

This database appears to be associated with index file/tag(s):
: RINS_SCR.NTX (JOB_ID)
: RINS_CON.NTX (CONTR_NO+CLIN_NO+SUB_CD+PERF_CD)

Structure for database : SURV.DBF
Number of data records : 3
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	SURV_CD	Character	1		1	1
2	SURV_DESC	Character	4		2	5

3	ANA_METHOD	Character	3	6	8
4	ADJ_FACTOR	Logical	1	9	9
5	SELECT	Character	1	10	10
** Total **			11		

This database appears to be associated with index file/tag(s):
: SURV.NTX (SURV_CD)

Structure for database : CHANNEL.DBF
Number of data records : 3
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	CHAN_CD	Character	1		1	1
2	CHAN_DESC	Character	25		2	26
3	SELECT	Character	1		27	27
** Total **			28			

This database appears to be associated with index file/tag(s):
: CHANNEL.NTX (CHAN_CD)

Structure for database : FREQUENT.DBF
Number of data records : 10
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	FREQ_CD	Character	1		1	1
2	FREQ_DESC	Character	15		2	16
3	SELECT	Character	1		17	17
** Total **			18			

This database appears to be associated with index file/tag(s):
: FREQUENT.NTX (FREQ_CD)

Structure for database : CHK_LST.DBF
Number of data records : 168
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	PMGUIDE	Character	5		1	5
2	DESC	Character	30		6	35
3	SELECT	Character	1		36	36
** Total **			37			

This database appears to be associated with index file/tag(s):
: CHK_LST.NTX (PMGUIDE)

Structure for database : CHK_ITEM.DBF
Number of data records : 2035
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	PMGUIDE	Character	5		1	5
2	ITEM_CD	Character	5		6	10
3	FREQ_CD	Character	1		11	11
4	ITEM_MEMO	Memo	10		12	21
5	SELECT	Character	1		22	22
** Total **			23			

This database is associated with the memo file: CHK_ITEM.DBT

This database appears to be associated with index file/tag(s):
: CHK_ITEM.NTX (PMGUIDE+ITEM_CD)

Structure for database : PERFORM.DBF
Number of data records : 4
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	PERF_BY	Character	3		1	3
2	DESC	Character	15		4	18
3	SELECT	Character	1		19	19

** Total ** 20

This database appears to be associated with index file/tag(s):
: PERFORM.NTX (PERF_BY)

Structure for database : COMPLAIN.DBF
Number of data records : 1
Last updated : 04/16/96 at 14:54

Field	Field name	Type	Width	Dec	Start	End
1	CUS_DATE	Date	8		1	8
2	CUS_TIME	Character	5		9	13
3	CUS_ORG	Character	10		14	23
4	CUS_NAME	Character	30		24	53
5	CUS_MEMO	Memo	10		54	63
6	CONTR_NO	Character	19		64	82
7	CLIN_NO	Character	5		83	87
8	SUB_CD	Character	2		88	89
9	DOC_ID	Character	15		90	104
10	PHASE_CD	Character	3		105	107
11	INST_NO	Character	5		108	112
12	FAC_NO	Character	5		113	117
13	UNIT_NO	Character	10		118	127
14	PLAN_NO	Character	3		128	130
15	CON_DATE	Date	8		131	138
16	CON_TIME	Character	5		139	143
17	CON_MEMO	Memo	10		144	153
18	EMP_ID	Character	2		154	155
19	VAL_DATE	Date	8		156	163
20	VALIDITY	Logical	1		164	164
21	SELECT	Character	1		165	165

** Total ** 166

This database is associated with the memo file: COMPLAIN.DBT

This database appears to be associated with index file/tag(s):
: COMP_DOC.NTX (CONTR_NO)
: COMP_CON.NTX (CONTR_NO+CLIN_NO+SUB_CD)

Structure for database : RSED_ADJ.DBF
Number of data records : 50
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	LOW	Numeric	5	2	1	5
2	ADJ_FACT	Numeric	5	2	6	10
3	SELECT	Character	1		11	11
** Total **			12			

This database appears to be associated with index file/tag(s):
: RSED_ADJ.NTX (LOW)

Structure for database : DOC_TYPE.DBF
Number of data records : 4
Last updated : 04/10/96 at 13:29

Field	Field name	Type	Width	Dec	Start	End
1	DOC_TYPE	Character	1		1	1
2	NAME	Character	35		2	36
3	SELECT	Character	1		37	37
** Total **			38			

This database appears to be associated with index file/tag(s):
: DOC_TYPE.NTX (DOC_TYPE)

Structure for database : FACILITY.DBF
Number of data records : 3782
Last updated : 04/10/96 at 13:30

Field	Field name	Type	Width	Dec	Start	End
1	INST_NO	Character	5		1	5
2	FAC_NO	Character	5		6	10
3	FAC_NAME	Character	30		11	40
4	SELECT	Character	1		41	41
** Total **			42			

This database appears to be associated with index file/tag(s):

: FAC_INST.NTX (INST_NO+FAC_NO)

: FACILITY.NTX (FAC_NO)

Structure for database : UNIT.DBF

Number of data records : 8504

Last updated : 04/10/96 at 13:30

Field	Field name	Type	Width	Dec	Start	End
1	INST_NO	Character	5		1	5
2	FAC_NO	Character	5		6	10
3	UNIT_NO	Character	10		11	20
4	DESC	Character	30		21	50
5	PMGUIDE	Character	5		51	55
6	SELECT	Character	1		56	56
** Total **			57			

This database appears to be associated with index file/tag(s):

: UNIT_FAC.NTX (INST_NO+FAC_NO+UNIT_NO)

: UNIT.NTX (UNIT_NO+INST_NO+FAC_NO)

: UNIT_PM.NTX (PMGUIDE)

Structure for database : LARGE.DBF

Number of data records : 15

Last updated : 04/23/96 at 15:34

Field	Field name	Type	Width	Dec	Start	End
1	ASCII	Character	255		1	255
** Total **			256			

Structure for database : CNVT.DBF

```
Number of data records :         0
          Last updated : 04/24/96 at 14:56
Field  Field name  Type        Width    Dec    Start      End
    1  STR         Character     255               1      255
** Total **                      256
```

```
Structure for database : TMP_TYPE.DBF
Number of data records :         2
          Last updated : 04/23/96 at 15:34
Field  Field name  Type        Width    Dec    Start      End
    1  D_FILE      Character      45               1       45
    2  DOC_TYPE    Character       1              46       46
    3  SELECT      Character       1              47       47
** Total **                       48
```

```
Structure for database : PRINTER.DBF
Number of data records :         2
          Last updated : 04/25/96 at 14:19
Field  Field name  Type        Width    Dec    Start      End
    1  PRT         Character       5               1        5
    2  DESC        Character      20               6       25
    3  SELECT      Character       1              26       26
** Total **                       27
```

```
Structure for database : SORT.DBF
Number of data records :         0
          Last updated : 04/25/96 at 14:19
```

Field	Field name	Type	Width	Dec	Start	End
1	FLD_NAME	Character	60		1	60
2	DESC	Character	15		61	75
3	ORDER	Character	1		76	76
4	SELECT	Character	1		77	77
** Total **			78			

Structure for database : PORT.DBF
Number of data records : 7
Last updated : 04/25/96 at 14:20

Field	Field name	Type	Width	Dec	Start	End
1	PORT	Character	4		1	4
2	DESC	Character	20		5	24
3	SELECT	Character	1		25	25
** Total **			26			

Structure for database : SETUP.DBF
Number of data records : 1
Last updated : 03/20/96 at 11:02

Field	Field name	Type	Width	Dec	Start	End
1	NAME	Character	8		1	8
2	BAR_PORT	Character	4		9	12
3	BAR_PRT	Character	5		13	17
4	WAND_PORT	Character	4		18	21
5	RPT_PORT	Character	4		22	25
6	RPT_PRT	Character	5		26	30
7	MODEM_PORT	Character	4		31	34
8	SPERRY	Character	32		35	66
9	PWD_DIR	Character	32		67	98
10	SELECT	Character	1		99	99
** Total **			100			

Structure for database : DOW.DBF
Number of data records : 7
Last updated : 10/11/95 at 8:53

Field	Field name	Type	Width	Dec	Start	End
1	ORDER	Numeric	2		1	2
2	ABBR	Character	3		3	5
3	DESC	Character	9		6	14
4	CONTR_NO	Character	19		15	33
5	CLIN_NO	Character	5		34	38
6	SUB_CD	Character	2		39	40
7	WORK_DATE	Date	8		41	48
8	SELECT	Character	1		49	49
** Total **			50			

Structure for database : CMONTH.DBF
Number of data records : 11
Last updated : 03/13/96 at 12:28

Field	Field name	Type	Width	Dec	Start	End
1	ORDER	Numeric	2		1	2
2	ABBR	Character	3		3	5
3	DESC	Character	9		6	14
4	SELECT	Character	1		15	15
5	SUB_CD	Character	2		16	17
6	CLIN_NO	Character	5		18	22
7	CONTR_NO	Character	19		23	41
** Total **			42			

Structure for database : MADR_UNT.DBF

Number of data records : 2

Last updated : 09/06/94 at 9:49

Field	Field name	Type	Width	Dec	Start	End
1	UNIT_CD	Character	3		1	3
2	UNIT_DESC	Character	20		4	23
3	SELECT	Character	1		24	24
** Total **			25			

Structure for database : FILE_DIR.DBF

Number of data records : 0

Last updated : 10/14/94 at 11:24

Field	Field name	Type	Width	Dec	Start	End
1	FIL_NAME	Character	12		1	12
2	FIL_DESC	Character	30		13	42
3	CRE_DATE	Date	8		43	50
4	CRE_TIME	Character	5		51	55
5	ORI_FILE	Character	12		56	67
6	ORI_DESC	Character	30		68	97
7	SELECT	Character	1		98	98
** Total **			99			

Structure for database : TMP_SIZE.DBF

Number of data records : 0

Last updated : 10/11/95 at 8:53

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	PLAN_NO	Character	3		25	27
4	PLAN_DESC	Character	40		28	67
5	SURV_CD	Character	1		68	68
6	POPULATION	Numeric	4		69	72
7	SAMPLE	Numeric	4		73	76
8	SELECT	Character	1		77	77
** Total **			78			

Structure for database : SMPLSIZE.DBF
Number of data records : 9
Last updated : 10/11/95 at 8:51

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	PLAN_NO	Character	3		25	27
4	PLAN_DESC	Character	40		28	67
5	POPULATION	Numeric	4		68	71
6	SAMPLE	Numeric	4		72	75
7	SELECT	Character	1		76	76
** Total **			77			

Structure for database : TMP_POP.DBF
Number of data records : 0
Last updated : 03/19/96 at 9:50

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	DOC_ID	Character	15		27	41
5	DOC_TYPE	Character	1		42	42
6	PHASE_CD	Character	3		43	45
7	CRE_DATE	Date	8		46	53
8	CMP_DATE	Date	8		54	61
9	INSP_DATE	Date	8		62	69
10	SHOP_CD	Character	3		70	72
11	INST_NO	Character	5		73	77
12	FAC_NO	Character	5		78	82
13	UNIT_NO	Character	10		83	92
14	POC_NAME	Character	15		93	107
15	POC_PHON	Character	12		108	119
16	TASK_CD	Character	4		120	123
17	PRI	Character	1		124	124

18	FREQ_CD	Character	1	125	125
19	DESC	Character	64	126	189
20	LOC	Character	30	190	219
21	EMP_ID	Character	2	220	221
22	REMARK	Memo	10	222	231
23	REINSP	Logical	1	232	232
24	REC_ID	Character	4	233	236
25	SELECT	Character	1	237	237
** Total **			238		

This database is associated with the memo file: TMP_POP.DBT

Structure for database : TMP_CDR.DBF
Number of data records : 0
Last updated : 10/11/95 at 8:53

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	PLAN_NO	Character	3		25	27
4	SMPL_ID	Character	8		28	35
5	DOC_ID	Character	15		36	50
6	PHASE_CD	Character	3		51	53
7	INST_NO	Character	5		54	58
8	FAC_NO	Character	5		59	63
9	UNIT_NO	Character	10		64	73
10	POPULATION	Numeric	4		74	77
11	SAMPLE	Numeric	4		78	81
12	REIN_NO	Numeric	4		82	85
13	CON_NO	Numeric	4		86	89
14	GOV_NO	Numeric	4		90	93
15	OTH_NO	Numeric	4		94	97
16	CUS_NO	Numeric	4		98	101
17	SURV_CD	Character	1		102	102
18	INSP_NO	Numeric	4		103	106
19	SELECT	Character	1		107	107
** Total **			108			

Structure for database : TMP_SCR.DBF
Number of data records : 0
Last updated : 01/16/96 at 11:20

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	DOC_ID	Character	15		25	39
4	PHASE_CD	Character	3		40	42
5	DOC_TYPE	Character	1		43	43
6	INST_NO	Character	5		44	48
7	FAC_NO	Character	5		49	53
8	UNIT_NO	Character	10		54	63
9	PERF_CD	Character	2		64	65
10	PERF_DESC	Character	20		66	85
11	MADR_NO	Numeric	3		86	88
12	MADR_UNIT	Character	3		89	91
13	PERCENT	Numeric	3		92	94
14	OD_NO	Numeric	4		95	98
15	OD_RATE	Numeric	6	2	99	104
16	ADJ_FACT	Numeric	5	2	105	109
17	MISS_NO	Numeric	4		110	113
18	SELECT	Character	1		114	114
** Total **			115			

Structure for database : SCH_TMP.DBF
Number of data records : 0
Last updated : 09/21/95 at 11:53

Field	Field name	Type	Width	Dec	Start	End
1	DOC_ID_NO	Character	15		1	15
2	PHASE_CD	Character	3		16	18
3	TASK_CD	Character	4		19	22
4	INST_NO	Character	5		23	27
5	FAC_NO	Character	5		28	32
6	UNIT_NO	Character	15		33	47
7	W_MIN	Numeric	5		48	52
8	PRIORITY	Character	1		53	53
9	SHOP_CD	Character	3		54	56
10	INS_DATE	Date	8		57	64

11	EMP_ID	Character	9	65	73
12	RELEASE	Date	8	74	81
13	DOC_TYPE	Character	1	82	82
14	SELECT	Character	1	83	83
** Total **			84		

Structure for database : TMP_MENU.DBF
Number of data records : 60
Last updated : 02/26/96 at 10:47

Field	Field name	Type	Width	Dec	Start	End
1	USER_ID	Character	9		1	9
2	SCREEN_ID	Character	4		10	13
3	MAIN_MENU	Character	15		14	28
4	SUB_MENU	Character	15		29	43
5	SCR_DESC	Character	15		44	58
6	SELECT	Character	1		59	59
** Total **			60			

Structure for database : GET_PM.DBF
Number of data records : 24
Last updated : 04/10/96 at 8:45

Field	Field name	Type	Width	Dec	Start	End
1	CONTR_NO	Character	19		1	19
2	CLIN_NO	Character	5		20	24
3	SUB_CD	Character	2		25	26
4	DOC_ID	Character	15		27	41
5	DOC_TYPE	Character	1		42	42
6	PHASE_CD	Character	3		43	45
7	CRE_DATE	Date	8		46	53
8	CMP_DATE	Date	8		54	61
9	INSP_DATE	Date	8		62	69
10	SHOP_CD	Character	3		70	72
11	INST_NO	Character	5		73	77
12	FAC_NO	Character	5		78	82

13	UNIT_NO	Character	10	83	92
14	POC_NAME	Character	15	93	107
15	POC_PHON	Character	12	108	119
16	TASK_CD	Character	4	120	123
17	PRI	Character	1	124	124
18	FREQ_CD	Character	1	125	125
19	DESC	Character	64	126	189
20	LOC	Character	30	190	219
21	EMP_ID	Character	2	220	221
22	REMARK	Memo	10	222	231
23	REINSP	Logical	1	232	232
24	REC_ID	Character	4	233	236
25	SELECT	Character	1	237	237
** Total **			238		

This database is associated with the memo file: GET_PM.DBT

System: QASIMS
Author: Yoon H Lim
Database Field Summary

Field Name	Type	Len	Dec	Database
ABBR	C	3	0	CMONTH.DBF
				QA_SCH.DBF
				DOW.DBF
ADJ_FACT	N	5	2	RSED_ADJ.DBF
				TMP_SCR.DBF
ADJ_FACTOR	L	1	0	SURV.DBF
ANA_METHOD	C	3	0	SURV.DBF
ASCII	C	255	0	LARGE.DBF
BAR_PORT	C	4	0	SETUP.DBF
BAR_PRT	C	5	0	SETUP.DBF
CHAN_CD	C	1	0	CHANNEL.DBF
				CLIN.DBF
CHAN_DESC	C	25	0	CHANNEL.DBF
CLIN_AMT	N	14	2	CLIN.DBF
CLIN_DESC	C	25	0	CLIN.DBF
CLIN_NO	C	5	0	TMP_POP.DBF
				REINSP.DBF
				QA_SCH.DBF
				INSP_SCR.DBF
				QA_UNIT.DBF
				SMPLSIZE.DBF
				QA_PLAN.DBF
				CMONTH.DBF
				INSP_HDR.DBF
				QA_PERF.DBF
				RINS_HDR.DBF
				COMPLAIN.DBF
				CLIN.DBF
				DOW.DBF
				TMP_SIZE.DBF
				IJO.DBF
				RINS_SCR.DBF
				TMP_CDR.DBF
				GET_PM.DBF
				TMP_SCR.DBF
CLIN_QTY	N	9	0	CLIN.DBF
CLIN_UNIT	C	3	0	CLIN.DBF
CLIN_UR	N	12	2	CLIN.DBF
CMP_DATE	D	8	0	REINSP.DBF

				TMP_POP.DBF
				IJO.DBF
				GET_PM.DBF
CONTR_AMT	N	15	2	CQNTRACT.DBF
CONTR_NAME	C	30	0	CONTRACT.DBF
CONTR_NO	C	19	0	INSP_SCR.DBF
				INSP_HDR.DBF
				GET_PM.DBF
				QA_SCH.DBF
				CONTRACT.DBF
				RINS_HDR.DBF
				CMONTH.DBF
				DOW.DBF
				COMPLAIN.DBF
				TMP_POP.DBF
				QA_PLAN.DBF
				TMP_SIZE.DBF
				CLIN.DBF
				QA_PERF.DBF
				TMP_CDR.DBF
				QA_UNIT.DBF
				RINS_SCR.DBF
				SMPLSIZE.DBF
				IJO.DBF
				REINSP.DBF
				TMP_SCR.DBF
CONTR_PHON	C	12	0	CONTRACT.DBF
CONTR_TTL	C	25	0	CONTRACT.DBF
CON_DATE	D	8	0	COMPLAIN.DBF
CON_MEMO	M	10	0	COMPLAIN.DBF
CON_NO	N	4	0	TMP_CDR.DBF
CON_TIME	C	5	0	COMPLAIN.DBF
CRE_DATE	D	8	0	IJO.DBF
				FILE_DIR.DBF
				TMP_POP.DBF
				GET_PM.DBF
				REINSP.DBF
CRE_TIME	C	5	0	FILE_DIR.DBF
CUS_DATE	D	8	2	COMPLAIN.DBF
CUS_MEMO	M	10	0	COMPLAIN.DBF
CUS_NAME	C	30	0	COMPLAIN.DBF
CUS_NO	N	4	0	TMP_CDR.DBF
CUS_ORG	C	10	0	COMPLAIN.DBF
CUS_TIME	C	5	0	COMPLAIN.DBF
DELAY	N	2	0	QA_PLAN.DBF
DESC	C	64	0	GET_PM.DBF
				TMP_POP.DBF
DESC	C	15	0	SORT.DBF

DESC	C	30	0	CHK_LST.DBF
DESC	C	9	0	QA_SCH.DBF
DESC	C	20	0	PORT.DBF
DESC	C	30	0	TASK.DBF
DESC	C	64	0	IJO.DBF
DESC	C	9	0	DOW.DBF
DESC	C	20	0	PRINTER.DBF
DESC	C	9	0	CMONTH.DBF
DESC	C	15	0	PERFORM.DBF
DESC	C	30	0	UNIT.DBF
DESC	C	64	0	REINSP.DBF
DOC_ID	C	15	0	REINSP.DBF
				TMP_POP.DBF
				INSP_HDR.DBF
				IJO.DBF
				RINS_HDR.DBF
				TMP_SCR.DBF
				QA_PLAN.DBF
				COMPLAIN.DBF
				TMP_CDR.DBF
				GET_PM.DBF
DOC_ID_NO	C	15	0	SCH_TMP.DBF
DOC_TYPE	C	1	0	RINS_HDR.DBF
				TMP_TYPE.DBF
				GET_PM.DBF
				INSP_HDR.DBF
				QA_PLAN.DBF
				INSP_SCR.DBF
				DOC_TYPE.DBF
				SCH_TMP.DBF
				TMP_SCR.DBF
				TMP_POP.DBF
				IJO.DBF
				REINSP.DBF
D_FILE	C	45	0	TMP_TYPE.DBF
EMP_FIRST	C	12	0	EMP.DBF
EMP_IA_IND	C	1	0	EMP.DBF
EMP_ID	C	2	0	GET_PM.DBF
				IJO.DBF
				EMP.DBF
				COMPLAIN.DBF
				RINS_HDR.DBF
				INSP_HDR.DBF
				QA_PLAN.DBF
				TMP_POP.DBF
				REINSP.DBF
EMP_ID	C	9	0	SCH_TMP.DBF
EMP_LAST	C	15	0	EMP.DBF

EMP_MID	C	1	0	EMP.DBF
END_DATE	D	8	0	INSP_HDR.DBF
				RINS_HDR.DBF
END_TIME	C	5	0	INSP_HDR.DBF
				RINS_HDR.DBF
FAC_NAME	C	30	0	FACILITY.DBF
FAC_NO	C	5	0	REINSP.DBF
				RINS_HDR.DBF
				IJO.DBF
				INSP_HDR.DBF
				UNIT.DBF
				QA_UNIT.DBF
				FACILITY.DBF
				SCH_TMP.DBF
				TMP_POP.DBF
				TMP_SCR.DBF
				GET_PM.DBF
				TMP_CDR.DBF
				COMPLAIN.DBF
FIL_DESC	C	30	0	FILE_DIR.DBF
FIL_NAME	C	12	0	FILE_DIR.DBF
FIRST	C	12	0	USER.DBF
FLD_NAME	C	60	0	SORT.DBF
FREQ_CD	C	1	0	FREQUENT.DBF
				REINSP.DBF
				QA_PLAN.DBF
				GET_PM.DBF
				IJO.DBF
				TMP_POP.DBF
				CHK_ITEM.DBF
FREQ_DESC	C	15	0	FREQUENT.DBF
FRI	N	4	0	EMP.DBF
GOV_NO	N	4	0	TMP_CDR.DBF
INSP_DATE	D	8	0	IJO.DBF
				GET_PM.DBF
				TMP_POP.DBF
				REINSP.DBF
INSP_NO	N	4	0	TMP_CDR.DBF
INST_NAME	C	30	0	BASE.DBF
INST_NO	C	5	0	REINSP.DBF
				BASE.DBF
				TMP_SCR.DBF
				COMPLAIN.DBF
				QA_UNIT.DBF
				INSP_HDR.DBF
				IJO.DBF
				FACILITY.DBF
				GET_PM.DBF

				TMP_CDR.DBF
				RINS_HDR.DBF
				SCH_TMP.DBF
				UNIT.DBF
				TMP_POP.DBF
INS_DATE	D	8	0	SCH_TMP.DBF
ITEM_CD	C	5	0	CHK_ITEM.DBF
ITEM_MEMO	M	10	0	CHK_ITEM.DBF
JOB_ID	C	12	0	INSP_SCR.DBF
				RINS_SCR.DBF
LAST	C	15	0	USER.DBF
LOC	C	30	0	TMP_POP.DBF
				GET_PM.DBF
				REINSP.DBF
				IJO.DBF
LOW	N	5	2	RSED_ADJ.DBF
MADR_NO	N	3	0	RINS_SCR.DBF
				INSP_SCR.DBF
				TMP_SCR.DBF
				QA_PERF.DBF
MADR_UNIT	C	3	0	RINS_SCR.DBF
				TMP_SCR.DBF
				QA_PERF.DBF
				INSP_SCR.DBF
MAIN_MENU	C	15	0	ACCESS.DBF
				TMP_MENU.DBF
MID	C	1	0	USER.DBF
MISS	L	1	0	RINS_HDR.DBF
				INSP_HDR.DBF
MISS_NO	N	4	0	TMP_SCR.DBF
MODEM_PORT	C	4	0	SETUP.DBF
MON	N	4	0	EMP.DBF
NAME	C	8	0	SETUP.DBF
NAME	C	35	0	DOC_TYPE.DBF
OD_NO	N	4	0	TMP_SCR.DBF
OD_RATE	N	6	2	TMP_SCR.DBF
ORDER	C	1	0	SORT.DBF
ORDER	N	2	0	QA_SCH.DBF
				CMONTH.DBF
				DOW.DBF
ORI_DESC	C	30	0	FILE_DIR.DBF
ORI_FILE	C	12	0	FILE_DIR.DBF
OTH_NO	N	4	0	TMP_CDR.DBF
PASS	L	1	0	INSP_HDR.DBF
PASS	C	5	0	USER.DBF
PASS	L	1	0	RINS_HDR.DBF
PERCENT	N	3	0	QA_PERF.DBF
				INSP_SCR.DBF

				RINS_SCR.DBF
				TMP_SCR.DBF
PERF_BY	C	3	0	INSP_HDR.DBF
				RINS_HDR.DBF
				REINSP.DBF
				PERFORM.DBF
PERF_CD	C	2	0	TMP_SCR.DBF
				QA_PERF.DBF
				RINS_SCR.DBF
				INSP_SCR.DBF
PERF_DESC	C	20	0	TMP_SCR.DBF
				QA_PERF.DBF
				RINS_SCR.DBF
				INSP_SCR.DBF
PERF_MEMO	M	10	0	QA_PERF.DBF
PHASE_CD	C	3	0	IJO.DBF
				TMP_SCR.DBF
				GET_PM.DBF
				REINSP.DBF
				COMPLAIN.DBF
				RINS_HDR.DBF
				SCH_TMP.DBF
				QA_PLAN.DBF
				INSP_HDR.DBF
				TMP_POP.DBF
				TMP_CDR.DBF
PHONE1	C	13	0	EMP.DBF
PHONE2	C	13	0	EMP.DBF
PLAN_DESC	C	40	0	SMPLSIZE.DBF
				QA_PLAN.DBF
				TMP_SIZE.DBF
PLAN_NO	C	3	0	TMP_SIZE.DBF
				QA_PLAN.DBF
				SMPLSIZE.DBF
				COMPLAIN.DBF
				TMP_CDR.DBF
PMGUIDE	C	5	0	UNIT.DBF
				CHK_LST.DBF
				CHK_ITEM.DBF
POC_NAME	C	15	0	IJO.DBF
				TMP_POP.DBF
				GET_PM.DBF
				REINSP.DBF
POC_PHON	C	12	0	TMP_POP.DBF
				IJO.DBF
				REINSP.DBF
				GET_PM.DBF
POPULATION	N	4	0	SMPLSIZE.DBF

				TMP_CDR.DBF
				TMP_SIZE.DBF
PORT	C	4	0	PORT.DBF
PRI	C	1	0	REINSP.DBF
				GET_PM.DBF
				TMP_POP.DBF
				IJO.DBF
PRIORITY	C	1	0	SCH_TMP.DBF
PRT	C	5	0	PRINTER.DBF
PWD_DIR	C	32	0	SETUP.DBF
REC_ID	C	4	0	RINS_HDR.DBF
				INSP_HDR.DBF
				GET_PM.DBF
				TMP_POP.DBF
				REINSP.DBF
REINSP	L	1	0	REINSP.DBF
				TMP_POP.DBF
				IJO.DBF
				GET_PM.DBF
REIN_DATE	D	8	0	RINS_HDR.DBF
				INSP_HDR.DBF
REIN_NO	N	4	0	TMP_CDR.DBF
RELEASE	D	8	0	SCH_TMP.DBF
REMARK	M	10	0	REINSP.DBF
				RINS_SCR.DBF
				INSP_SCR.DBF
				TMP_POP.DBF
				CONTRACT.DBF
				GET_PM.DBF
				IJO.DBF
				RINS_HDR.DBF
				INSP_HDR.DBF
				QA_PLAN.DBF
RPT_PORT	C	4	0	SETUP.DBF
RPT_PRT	C	5	0	SETUP.DBF
SAMPLE	N	4	0	TMP_CDR.DBF
				TMP_SIZE.DBF
				SMPLSIZE.DBF
SAT	N	4	0	EMP.DBF
SCORE	C	1	0	RINS_SCR.DBF
				INSP_SCR.DBF
SCREEN_ID	C	4	0	TMP_MENU.DBF
				ACCESS.DBF
SCR_DESC	C	15	0	ACCESS.DBF
				TMP_MENU.DBF
SELECT	C	1	0	QA_PERF.DBF
				COMPLAIN.DBF
				EMP.DBF

				RINS_HDR.DBF
				CLIN.DBF
				QA_UNIT.DBF
				SMPLSIZE.DBF
				INSP_SCR.DBF
				RINS_SCR.DBF
				SHOP.DBF
				CHK_LST.DBF
				GET_PM.DBF
				REINSP.DBF
				QA_PLAN.DBF
				TMP_MENU.DBF
				SETUP.DBF
				TMP_CDR.DBF
				SORT.DBF
				TASK.DBF
				RSED_ADJ.DBF
				PORT.DBF
				TMP_SCR.DBF
				IJO.DBF
				DOC_TYPE.DBF
				SURV.DBF
				FREQUENT.DBF
				TMP_POP.DBF
				FACILITY.DBF
				CMONTH.DBF
				QA_SCH.DBF
				FILE_DIR.DBF
				PERFORM.DBF
				TMP_TYPE.DBF
				UNIT.DBF
				ACCESS.DBF
				SCH_TMP.DBF
				DOW.DBF
				TMP_SIZE.DBF
				PRINTER.DBF
				INSP_HDR.DBF
				BASE.DBF
				CHANNEL.DBF
				MADR_UNT.DBF
				CHK_ITEM.DBF
				CONTRACT.DBF
SHOP_CD	C	5	0	QA_PERF.DBF
SHOP_CD	C	3	0	SCH_TMP.DBF
				QA_SCH.DBF
				IJO.DBF
				QA_PLAN.DBF
				TMP_POP.DBF

				QA_UNIT.DBF
				GET_PM.DBF
				SHOP.DBF
				REINSP.DBF
SHOP_NAME	C	20	0	SHOP.DBF
SMPL_ID	C	8	0	TMP_CDR.DBF
				RINS_HDR.DBF
				INSP_HDR.DBF
				REINSP.DBF
SPERRY	C	32	0	SETUP.DBF
START_DATE	D	8	0	RINS_HDR.DBF
				INSP_HDR.DBF
START_TIME	C	5	0	RINS_HDR.DBF
				INSP_HDR.DBF
STR	C	255	0	CNVT.DBF
SUB_CD	C	2	0	TMP_POP.DBF
				COMPLAIN.DBF
				QA_PLAN.DBF
				INSP_SCR.DBF
				IJO.DBF
				GET_PM.DBF
				INSP_HDR.DBF
				CMONTH.DBF
				RINS_SCR.DBF
				QA_PERF.DBF
				QA_SCH.DBF
				QA_UNIT.DBF
				DOW.DBF
				REINSP.DBF
				RINS_HDR.DBF
SUB_MENU	C	15	0	TMP_MENU.DBF
				ACCESS.DBF
SUN	N	4	0	EMP.DBF
SURV_CD	C	1	0	TMP_SIZE.DBF
				TMP_CDR.DBF
				QA_PLAN.DBF
				SURV.DBF
SURV_DESC	C	4	0	SURV.DBF
S_DATE	D	8	0	EMP.DBF
TASK_CD	C	4	0	SCH_TMP.DBF
				REINSP.DBF
				GET_PM.DBF
				TASK.DBF
				IJO.DBF
				TMP_POP.DBF
THU	N	4	0	EMP.DBF
TUE	N	4	0	EMP.DBF
UNIT_CD	C	3	0	MADR_UNT.DBF

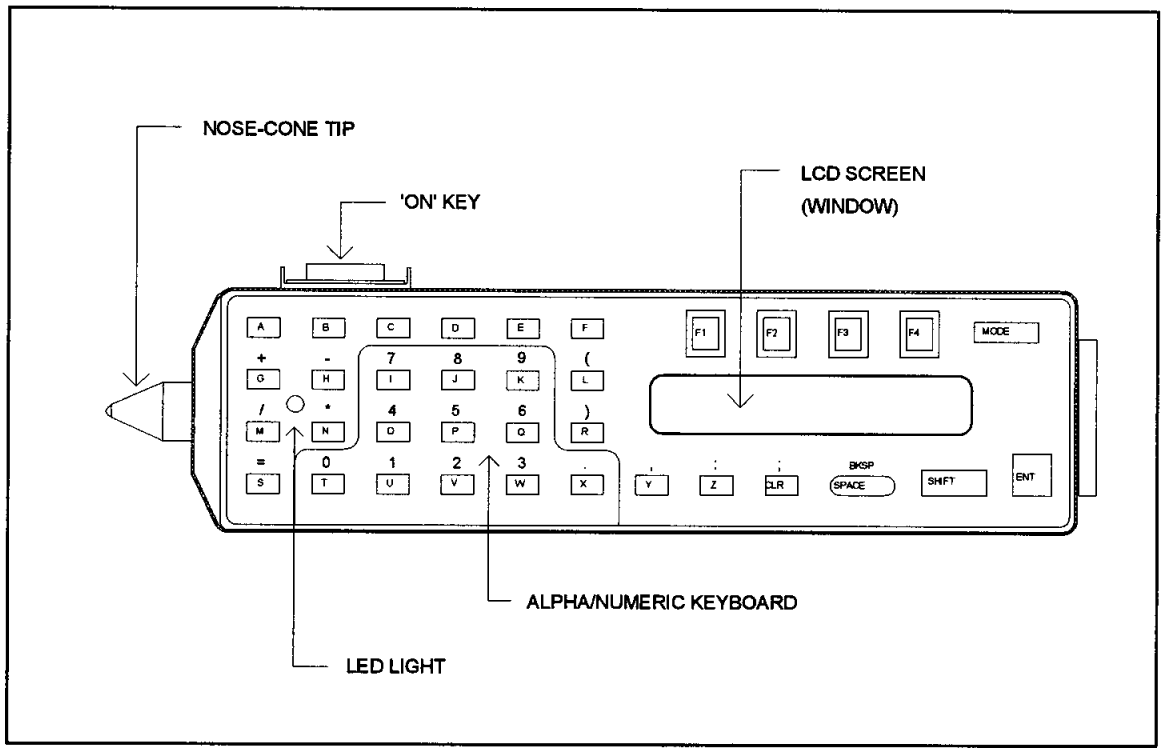
UNIT_DESC	C	20	0	MADR_UNT.DBF
UNIT_NO	C	10	0	IJO.DBF
UNIT_NO	C	15	0	SCH_TMP.DBF
UNIT_NO	C	10	0	REINSP.DBF
				GET_PM.DBF
				TMP_CDR.DBF
				INSP_HDR.DBF
				UNIT.DBF
				TMP_POP.DBF
				TMP_SCR.DBF
				COMPLAIN.DBF
				QA_UNIT.DBF
				RINS_HDR.DBF
USER_ID	C	9	0	USER.DBF
				ACCESS.DBF
				TMP_MENU.DBF
VALIDITY	L	1	0	COMPLAIN.DBF
VAL_DATE	D	8	0	COMPLAIN.DBF
WAND_PORT	C	4	0	SETUP.DBF
WED	N	4	0	EMP.DBF
WORK_DATE	D	8	0	DOW.DBF
				QA_SCH.DBF
W_MIN	N	5	0	SCH_TMP.DBF

→

APPENDIX D

MICROWAND BARCODE READER

USER'S MANUAL



QASIMS MICRO-WAND III & IIIe DIRECTIONS

The MICRO-WAND model III and IIIe is a tool to simplify the recording of information. Information may be entered in one of two ways:

A. Letters and numbers are entered by use of the letter and number keys on the bar code wand.

B. Information which is available in the form of printed bar codes may be entered using the nose-cone tip at the side of the unit. To enter data using the bar code reader, press the key labeled 'ON' at the top of the wand and while holding the key down, move the nose-cone tip lightly over the printed bar code. The reader will beep once when the 'ON' key is initially depressed and again when the bar code is read. If the unit fails to beep when the wand is moved over the printed bar code, simply try again until it beeps.

The MICRO-WAND model III and IIIe will go into 'sleep mode' (screen goes blank) after 30 seconds if no information is being entered. To view the screen, simply press the 'ON' key.

The 'shift' key is used (similar to the 'shift' key on a typewriter keyboard or calculator) to switch between the letters printed on the keys and the numbers or symbols printed above the keys.

The 'space' key is used when a blank space must be utilized in an entry. If the 'shift' key is pressed prior to pressing the 'space' key, the key acts as a backspace key to delete the last character in an entry. This function may be helpful in correcting miskeyed entries.

The 'mode' key is used to revise a previous entry. Pressing the 'mode' key changes the screen display to the previous display. This function is helpful if a change to a

previous entry must be made.

With the printed 'Inspection Sheet' at hand:

Press key labeled [ON] at top of unit.

A) Main Menu

A-1.

```
QASIMS 2.1
```

will appear momentarily on the screen.

A-2.

```
INSP    UTIL
    TRAN    QUIT
```

will appear on the screen. This is a 'Main Menu' allowing either collection of data or transmission of them to PC via serial port. It also allows to correct Date/Time of MICROWAND built-in clock. For now, press [F1] to select 'INSP' and begin entry of inspection data.

B) Login Process

B-1.

```
Your ID>>   (XIT)
_
```

USER ID screen will appear. Type in your inspector ID code by using keyboard of MICROWAND. This ID will be stamped on all inspection data stored in the MICROWAND.

This procedure ends **login** and goes to inspection work.

C) Inspection Work

Inspection work starts from identifying Sample ID Number of the Work Order.

C-1.

```
Sample ID>>(XIT)
_
```

On Sample ID Screen, scan the Sample ID Number corresponding to the inspection job from the 'Inspection Sheet'.

C-2.

```
Record ID>>(XIT)
_
```

On Record ID Screen, scan the Record ID corresponding to the inspection job from the 'Daily Inspection Sheet'.

C-3.

```
SCORE    DONE
    MEMO     UTIL
```

When the job identification processes (C-1 and C-2) have been completed, the Scoring Menu Screen appears. SCORE option allows you to score inspection task, MEMO option allows you to attach comments on the inspection task, and UTIL option displays various MICROWAND status such as battery condition, usable memory size, current date and time. For now, press [F1] to select SCORE option, and begin scoring inspection task.

C-4.

```
TASK_CD>>   (XIT)
_
```

will appear on the screen. Scan the inspection task code you are inspecting now.

C-5.

```
SCORE 01>> (XIT)
_
```

will appear on the screen. The two digit number immediately after the word 'SCORE ' indicates the Inspection Task Code. Scan the corresponding score for the inspection task. Continue C-6 and C-7 process until you complete the inspection for the job. Then, press [F4] to exit the scoring screen.

C-6.

```
SCORE 02 MISSED!
```

If any score is missing, MICROWAND will display those missing items on the screen with Beep sound. When all inspection tasks are scored, the MICRO WAND goes back to SCORE MENU.
On this screen, if you want to add memo on the current inspection job, press

F2 to select 'MEMO' option.

C-7.

```
Remarks:>> (XIT)
```

will appear on the screen. Type in memo by using key board on

MICROWAND followed by ENT

key, and MICROWAND will go back to SCORE Menu. When you are done with current inspection,

press F3 key to select

'DONE' option.

C-8.

```
Reperform By?
N/A CON GOV OTH
```

If any of inspection task failed to pass, REPERFORM screen will appear. This screen is to identify who is going to reperform the current failed work order. 'N/A' is for 'Not Applicable', 'CON' is for 'Contractor', 'GOV' is for 'Government', and 'OTH' is for 'Other Contractor'. Select one of four options by using function keys. If all tasks passed inspection, you will not see this screen.

C-9.

New Job	COB

After completion of one inspection, the C-11 screen will show up. You can continue to inspect another work order

by pressing [F1] key, or ends

daily work by hitting [F3]

key.
When you select 'New Job', you can now continue to work on another inspection jobs by repeating C1 to C11 process. If you select 'COB', the screen blank out. When you comes back from the break, press

key labeled [ON] at top of

MICROWAND. The A-1 screen will show up.

D) Data Downloading Process

Now the last step to take is downloading to your PC the work order data stored in the barcode wand.

Press key [ON] and the MAIN MENU will reappear. Press [F2] on MAIN MENU to select 'TRAN' option.

D-1.

```
<ENT>=TRANSMIT
<MODE>=QUIT
```

will appear on the screen. By this time, the QASIMS program installed in your PC must be ready to receive the data from the WAND, and the serial cable must be connected firmly between PC and barcode wand. When you are ready,

press key [ENT].

D-2.

```
TRANSMITTING...
```

will appear on the screen. This message always appears regardless of actual transmission. You can see the data scrolling on your PC monitor when the transmission is successful. After transmitting the data the barcode goes to sleep mode.

Press key [ON].

D-3.

```
PURGE DATA
(Y/N)? >>
```

will appear on the screen.

Press [Y] followed by [ENT].

This process will erase all the data stored in barcode wand and reinitialize it. Barcode wand will go into sleep mode until you are ready to begin another day's work.

E) Utility Menu

Utility Menu on MAIN MENU allows user to change built-in date and time in MICROWAND, and check the status of battery and memory.

Press key [ON] and the MAIN MENU will reappear. Press [F3] on MAIN MENU to select 'UTIL' option.

E-1.

```
BAT      DATE
    MEM      TIME
```

'Utility Menu' will appear on the screen. By 'BAT' option allows user checking battery voltage, 'MEM' option displays memory size available in MICROWAND, 'DATE' and 'TIME' options allow user to edit current date and time. For now, select 'BAT' by pressing [F1] key.

E-2.

```
Battery Voltage:
9.82Volt
```

will appear on the screen. This message stays on the screen for five seconds, and go back to 'Utility Menu' screen automatically.

E-3.

```
Free Memory (K):
110.5KBytes
```

when you select 'MEM' option by pressing [F2] key from the 'Utility Menu', screen E-3 will appear. This screen displays available memory in MICROWAND in Kilo-Bytes. For your reference, each inspection task requires maximum three Kilo-Bytes. The screen stays for five seconds, and go back to 'Utility Menu' screen automatically.

E-4.

```
DATE>>   (OK) (NO)
02/13/95
```

when you select 'DATE' option by pressing [F3] key from the 'Utility Menu', screen E-4 will appear.
<u>IF DATE SHOWN IS CORRECT</u>, press key [F3] to go back to Utility Menu.
<u>IF DATE SHOWN IS INCORRECT</u>, press key [F4] to correct it.

E-5.

```
DATE: MMDDYY
_
```

Date correction screen will appear on the screen. Enter the today's date and press key labeled [ENT].

For example, the day March 5, 1994 would be entered as 030594. The screen will automatically go back to 'Utility Menu'.

E-6.

```
TIME>>   (OK) (NO)
10:13:03
```

when you select 'TIME' option by pressing [F4] key from the 'Utility Menu', screen E-6 will appear. Once the date has been checked, Time Correction Screen will appear.
<u>IF TIME SHOWN IS CORRECT</u>, press key labeled [F3] to advance.
<u>IF TIME SHOWN IS INCORRECT</u>, press key labeled [F4] and,

E-7. TIME: HHMMSS
_

will appear on the screen. Enter the correct time in 24HR format and press key labeled

ENT. For example, the time 8:05 and 15 seconds AM would be entered as 080515. The screen will automatically go back to 'Utility Menu'.

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