

DTIC FILE COPY

2

AD-A197 847

ANALYSIS AND IMPLEMENTATION  
OF THE  
LOGISTICS EQUIPMENT DIRECTORATE'S  
PROGRAM MANAGEMENT SYSTEM  
APPENDIX E  
DATABASE USER'S MANUAL



*Science Applications International Corporation*

DTIC  
ELECTE  
JUL 20 1988  
S D

DISTRIBUTION STATEMENT A

Approved for public release  
Distribution Unlimited

2

ANALYSIS AND IMPLEMENTATION  
OF THE  
LOGISTICS EQUIPMENT DIRECTORATE'S  
PROGRAM MANAGEMENT SYSTEM  
APPENDIX E  
DATABASE USER'S MANUAL

13 JULY 1988

ARTHUR A. NARRO  
LAURA M. FEAHENY  
BRUCE B. HALSTEAD

DTIC  
ELECTE  
JUL 20 1988  
S D  
AD

Prepared for:  
US Army  
Belvoir Research, Development and Engineering Center

Under  
Contract Number DAAK70-84-D-0053  
Task Order 0033

"The views, opinions and/or findings contained in this report are those of the authors and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation."

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION  
Military Operations Analysis Division  
1710 Goodridge Drive, T-7-2  
McLean, Virginia 22102

DISTRIBUTION STATEMENT  
Approved for public release  
Distribution Unlimited

# PROGRAM MANAGEMENT SYSTEM

## DATABASE USER'S MANUAL

### TABLE OF CONTENTS

| <u>SECTION</u> |                                                                               | <u>PAGE</u> |
|----------------|-------------------------------------------------------------------------------|-------------|
| 1              | PROGRAM MANAGEMENT SYSTEM DESCRIPTION.....                                    | 1-1         |
|                | a. Introduction.....                                                          | 1-1         |
|                | b. Database Access.....                                                       | 1-1         |
|                | c. Data Range.....                                                            | 1-1         |
|                | d. Database Development.....                                                  | 1-2         |
|                | e. Database Query Capabilities of PMD.....                                    | 1-3         |
|                | f. Query Examples.....                                                        | 1-4         |
| 2              | HARDWARE AND SOFTWARE REQUIREMENTS.....                                       | 2-1         |
| 3              | INSTALLATION.....                                                             | 3-1         |
|                | a. Install R:BASE System V.....                                               | 3-1         |
|                | b. Configuration of the Stations.....                                         | 3-1         |
| 4              | USING THE PROGRAM MANAGEMENT SYSTEM DATABASE QUERY AND<br>REPORT PROGRAM..... | 4-1         |
|                | a. Using PMD.....                                                             | 4-1         |
|                | b. Performing a Query with PMD.....                                           | 4-2         |
|                | c. Printing Program Management Data Sheets.....                               | 4-14        |
|                | d. Printing Division Chief Reports (DCRs).....                                | 4-17        |
|                | e. Exiting PMD.....                                                           | 4-19        |
|                | f. Adhoc Queries.....                                                         | 4-20        |
| 5              | BACKING UP THE DATABASE.....                                                  | 5-1         |
| 6              | CODING SYSTEM.....                                                            | 6-1         |



|                            |                                     |
|----------------------------|-------------------------------------|
| Accession For              |                                     |
| NTIS CRA&I                 | <input checked="" type="checkbox"/> |
| DTIC TAB                   | <input type="checkbox"/>            |
| Unannounced                | <input type="checkbox"/>            |
| Justification              |                                     |
| By <i>per tech rpt. NP</i> |                                     |
| Distribution/              |                                     |
| Availability Codes         |                                     |
| Dist                       | Avail and/or Special                |
| A-1                        |                                     |

PROGRAM MANAGEMENT SYSTEM  
DATABASE USER'S MANUAL  
ENCLOSURES

| <u>NUMBER</u> | <u>TITLE</u>                                                    |
|---------------|-----------------------------------------------------------------|
| 1             | TEXT DATA FIELDS USED IN THE PROGRAM MANAGEMENT SYSTEM DATABASE |
| 2             | STRUCTURE OF THE PROGRAM MANAGEMENT SYSTEM DATABASE             |
| 3             | EXAMPLES OF A BATCH FILE TO RUN FROM MS-DOS                     |
| 4             | CREATING THE HARVARD TOTAL PROJECT MANAGER II ASCII DATA FILES  |



## **TRADEMARK**

*DIF is a registered trademark of Software Arts Products Corporation.*

*HTPM, HTPM II, Harvard Total Project Manager, and Harvard Total Project Manager II are registered trademarks of Software Publishing Corporation.*

*IBM, PC, PC-XT, and PC-AT are registered trademarks of International Business Machines Corporation.*

*MS-DOS is a registered trademark of Microsoft Corporation.*

*R:BASE System V, R:BASE, and FILEGATEWAY are registered trademarks of Microrim, Inc.*

## 1. PROGRAM MANAGEMENT SYSTEM DESCRIPTION

a. Introduction. The Program Management System (PMS) was devised to ensure effective monitoring of ongoing programs within the Logistics Equipment Directorate (LED) of the US Army Belvoir Research, Development and Engineering Center (BELVOIR). The PMS consists of three distinct parts:

- (1) LED Program Schedules developed using HTPM-II Program Management Software;
- (2) LED PMS Database is the depository of LED program data. Up to 18 months of program schedule information is stored in this database; and
- (3) Program Management Directives (PMD), the automated query and report facility for the database.

b. Database Access. The database is available to all Division Chiefs, Team Chiefs, and Project Engineers; however, it will be maintained by the Program Management Division. Through the use of a menu-driven query application (PMD), the PMS Database is accessible to persons unfamiliar with R:BASE System V, and/or database management systems. Reports are generated from the database for periodic distributions. Two current examples of these reports are the Program Management Data Sheet (PMDS) and the Division Chief Report (DCR).

c. Data Range. The PMS contains data of ongoing programs within LED. The data were obtained from program schedules developed in Harvard Total Project Manager (HTPM II) Software. Specific information, as cited in Figure 1, was gathered for each project within the database.

| DATA GATHERED FOR EACH PROGRAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>PROGRAM DATA</p> <ul style="list-style-type: none"> <li>- Project Name</li> <li>- PMS Number</li> <li>- Acronym</li> <li>- Proponent School</li> <li>- Brief Description of the Project</li> <li>- Project Engineer's Name, Office Symbol, and Telephone Number</li> <li>- Team Chief's Name, Office Symbol, and Telephone Number</li> <li>- Division Chief's Name, Office Symbol, and Telephone Number</li> <li>- Type of Program</li> <li>- Type of Funding</li> <li>- Funding Level for the Current Fiscal Year</li> <li>- HTPM Program Schedule (Yes/No)</li> <li>- Date the HTPM Schedule was Last Updated</li> </ul> |
| <p>HTPM SCHEDULE DATA FOR EACH TASK AND MILESTONE</p> <ul style="list-style-type: none"> <li>- Task Name</li> <li>- Description</li> <li>- Duration (Planned and Actual)</li> <li>- Start Date (Planned and Actual)</li> <li>- Finish Date (Planned and Actual)</li> <li>- Percent Complete</li> <li>- Responsibility</li> </ul>                                                                                                                                                                                                                                                                                              |

FIGURE 1-1. Program Data.

d. Database Development. The PMS Database and PMD were developed using R:BASE System V, the database management software standard for LED. The program schedules were developed using HTPM II, the project management software standard for LED. The HTPM schedule data were then translated to American National Standard Code for Information Interchange (ASCII) delimited files, a format compatible with R:BASE System V.

e. Database Query Capabilities of PMD. The menu-driven query and report system (PMD) developed for the PMS Database, provides users an extensive querying capability. The queries will be specified through changes the user makes to the scope menu (see figure 1-2). The values of the scope define the specific data to be displayed.

| SCOPE |                                                                                                                                                                                                                                                                                                                                   |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.    | Project. <ul style="list-style-type: none"><li>a. Specific project (PMS Number).</li><li>b. All projects within a Division.</li><li>c. All projects within the database.</li></ul>                                                                                                                                                |
| 2.    | Dates. <ul style="list-style-type: none"><li>a. Earliest date</li><li>b. Latest date.</li><li>c. No specified dates.</li></ul>                                                                                                                                                                                                    |
| 3.    | Status. <ul style="list-style-type: none"><li>a. All completed tasks and milestones.</li><li>b. All incomplete tasks and milestones.</li><li>c. Tasks and milestones completed behind schedule.</li><li>d. Tasks and milestones incomplete and behind schedule.</li><li>e. All tasks and milestones in the schedule(s).</li></ul> |
| 4.    | Schedule tasks and milestones additions and deletions. <ul style="list-style-type: none"><li>a. Added to the schedule(s) since the last update.</li><li>b. Removed from the schedule(s) since the last update.</li><li>c. All tasks and milestones in the schedule(s).</li></ul>                                                  |
| 5.    | Code. <ul style="list-style-type: none"><li>a. Category field only (i.e., ILS, IPR, PMDs, TC).</li><li>b. Subject field only (i.e., AS, FOTE, HFE, TDP, TEMP).</li><li>c. Action field only (i.e., approve, award, conduct).</li><li>d. Any combination of category, subject, and action.</li><li>e. All codes.</li></ul>         |
| 6.    | Output. <ul style="list-style-type: none"><li>a. Screen.</li><li>b. Printer.</li><li>c. File.</li></ul>                                                                                                                                                                                                                           |

FIGURE 1-2. Scope Menu.

f. Query Examples. The following types of queries may be answered using the query program:

- Milestones where PMS number equals XYZ\* and milestones are contained in BELVOIR and Army Management Milestone System (BAMMS).
- PMS numbers for programs where the program name contains STRING\*.
- Tasks and milestones where category code equals ILS, completion percentage equals 100%, and Division code equals Marine.
- Tasks and milestones where category code equals IPR.
- Tasks and milestones where completion percentage equals 100% and PMS number equals XYZ.
- Tasks and milestones where Division code equals DIV\* and are behind schedule.
- Tasks and milestones where Division code equals Power Generation and shall be completed prior to some specified date.
- Tasks and milestones where PMS number equals XYZ and are behind schedule.
- Tasks and milestones where PMS number equals XYZ and takes place between two dates.
- Tasks and milestones where PMS number equals XYZ and have been slipped.
- Tasks and milestones where subject code equals Acquisition Strategy and Division code equals Environmental Control.
- Tasks and milestones where subject code equals Milestone I IPR and occurs in the next six months.

PMD will find the programs meeting the condition chosen. The user is given the option of where the output is to be written (screen, data file, or printer) (see Figure 2, paragraph 6).

\* DIV, STRING, and XYZ represent user specified values.

## 2. HARDWARE AND SOFTWARE REQUIREMENTS

The LED PMS Database requires:

- An IBM PC or PC-compatible computer with a minimum of,
  - o 540 kilobytes (Kb) of Random Access Memory (RAM)
  - o 5 1/4 inch floppy drive
  - o A minimum of 3 megabytes (Mb) of free memory on a hard disk.  
(Note: 5 Mb is recommended for data growth)
- R:Base System V Database Management Software
- HTPM-II Project Management Software
- Microsoft Disk Operating System (MS-DOS) version 3.1 (or greater)

- NOTE:
- The database will occupy more space as projects are added or when HTPM schedule updates are loaded.
  - Certain queries or relational database operations may cause the Program Management System Database to grow.
  - Queries performed using PMD Query System will not cause database growth.

### 3. INSTALLATION

Currently, the PMS Database and PMD are contained on six (6) diskettes, five (5) for the database and one for the PMD program files. The installation is performed in MS-DOS.

a. Install R:BASE System V. If R:BASE is not already installed on your disk, follow the instructions supplied with R:BASE to install it.

b. Configuration of the Stations. The configurations of the Remote Stations and the Master Station are described below:

(1) Remote Station Configuration and PMD Installation.

1st. Creating a working area in the computer.

On your hard disk, create a directory PMS (PMS is a required name for this directory (working area)).

Example. At the C> prompt,  
type C> MD PMS (Make Directory PMS)

2nd. Copying PMS data into the PMS directory.

a. Insert the 1st data floppy disk into the computer disk drive. Transferring of the data from the floppy to C:\PMS is accomplished by using the RESTORE command.

Example. At the C> prompt,  
type C> RESTORE A:\*. \* C:\PMS  
Your computer will ask you for the next disk until all the data is copied.

3rd. Installation of the application programs.

a. Insert the PMD floppy disk into the computer floppy disk drive. Type the following DOS commands at the C> prompt:

C> CD\PMS <press ENTER key>  
C> \MSINST

(2) Master Station Configuration.

1st. Repeat all steps on Remote Station Configuration

2nd. Create directory HTPM-II in your hard disk.

Example C> CD\ <enter>  
C> MD HTPM-II

This directory will store all HTPM Program Schedules in ASCII format.

#### 4. USING THE PROGRAM MANAGEMENT SYSTEM DATABASE QUERY AND REPORT PROGRAM

a. Using PMD. The PMD query and report facility is accessed from within R:BASE System V. Before initiating R:BASE, change directories so that the current directory is PMS and set the path to the drive and directory containing R:BASE. At this time, you can initiate R:BASE.

```
C> CD\PMS
C> PATH C:\RBFILS {If RBFILS is not the name of the directory where
                  the R:BASE system resides, then enter the correct
                  directory.}
C> RBASE
```

After a few moments, the R:BASE introductory screen, with the R:BASE logo, will appear. This will be followed by the menu shown below with option (1), "R:BASE command mode", highlighted. Press [enter] to select this option. At the "R" prompt type RUN PMD [enter].

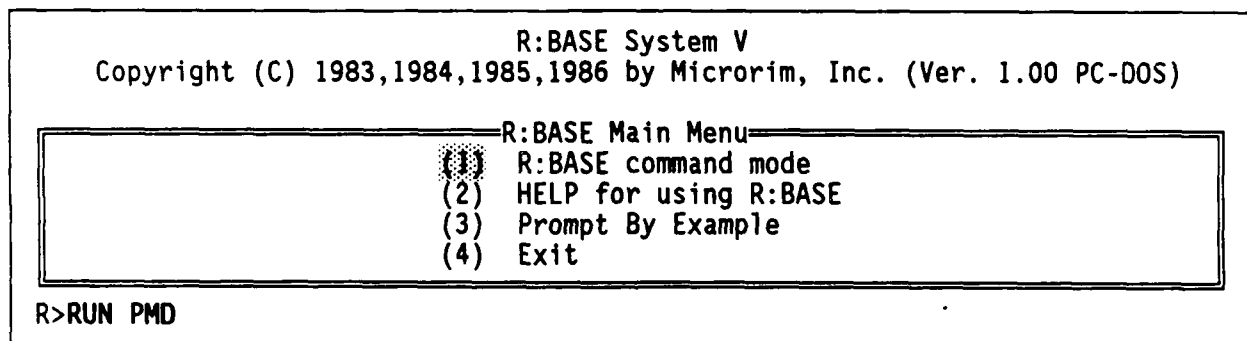


Figure 4-1. R:Base Main Menu

The following menu will appear.

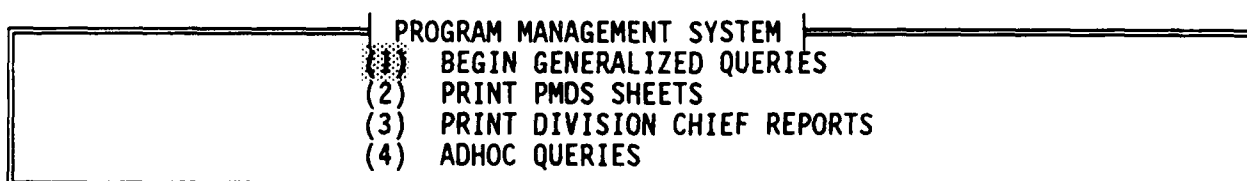


Figure 4-2. PMD Introductory Menu

This menu provides the user with the options of printing reports, running the automated query application, or to exit the system in order to perform adhoc queries. The user can select any of these options by: (1) using the up and down arrow keys or (2) typing the number by the alternative in the menu. The user can exit from this, as well as all menus used by PMD, by pressing the <esc> key. The following subsections will discuss each of the options in greater detail.

b. Performing a Query with PMD. Select option one "BEGIN GENERALIZED QUERIES" from the PMD introductory menu. The PMS title screen will appear and the environment variables will be established. The following screen will appear:

|                                                |                                   |
|------------------------------------------------|-----------------------------------|
| PROJECTS:                                      | All Projects within the Database  |
| DATES:                                         | Examine All Tasks and Milestones  |
| STATUS:                                        | All Tasks and Milestones          |
| CODE:                                          | Examine All Tasks and Milestones  |
| ADD/DELETE:                                    | Only Examine the Current Schedule |
| OUTPUT:                                        | Screen                            |
| **** PRESS <ESC> TO END THE QUERY SESSION **** |                                   |

|                                        |
|----------------------------------------|
| SET UP THE GENERALIZED QUERY STRUCTURE |
| (1) PROJECTS                           |
| (2) DATES                              |
| (3) STATUS                             |
| (4) CODE                               |
| (5) SCHEDULE ADDITIONS AND DELETIONS   |
| (6) OUTPUT                             |
| (7) QUERY STRUCTURE COMPLETED          |

Figure 4-3. PMD Scope Option Screen

At the start of the query session, the user can choose the initial structure of the query to be performed. The defining of the query is accomplished in two phases: Phase I is the default query screening (see figure above). Phase II allows tailoring of this menu to a more specific query. By selecting any of the options (1) through (6), the user is able to individually tailor the query from the default values.

(1) Description of Phase I.

(a) Projects. This option enables the user to select the breadth of projects to be examined by this query. The user can choose to examine all Logistics Equipment Directorate projects, all projects within a Division, or a specific project (chosen by PMS number). The menu for this option is below:

|     | PROJECT SELECTION                |
|-----|----------------------------------|
| (1) | ALL PROJECTS WITHIN THE DATABASE |
| (2) | ALL PROJECTS WITHIN A DIVISION   |
| (3) | A SPECIFIC PROJECT               |

Figure 4-4. Project Selection Menu

(b) Dates. The user can choose to examine tasks and milestones which occur at any time between two dates, after a particular date, or before a particular date. If the user wants to specify a date, option (2), "CHOOSE TASKS AND MILESTONES BETWEEN SPECIFIC DATES", must be chosen. It should be noted that the specific dates will be selected in Phase II. The date menu is displayed below:

|     | DATES                                              |
|-----|----------------------------------------------------|
| (1) | EXAMINE ALL TASKS AND MILESTONES                   |
| (2) | CHOOSE TASKS AND MILESTONES BETWEEN SPECIFIC DATES |

Figure 4-5. Date Selection Menu

(c) Status. This query segment allows the user to determine the status of tasks and milestones (complete, incomplete, or behind schedule). The completed tasks and milestones are derived from the completion percentage entered by the Project Engineers in their HTPM project schedules. The query program determines which tasks are behind schedule by calculating the expected completion percentage for each task and compares that to the actual completion percentage as entered by the Project Engineer. The task and milestone menu is below:

| TASK AND MILESTONE STATUS |                                          |
|---------------------------|------------------------------------------|
| (1)                       | ALL TASKS AND MILESTONES                 |
| (2)                       | ALL COMPLETED TASKS AND MILESTONES       |
| (3)                       | ALL INCOMPLETE TASKS AND MILESTONES      |
| (4)                       | ALL TASKS AND MILESTONES BEHIND SCHEDULE |

Figure 4-6. Task and Milestone Menu

(d) Code. The code selection capability is more precise than the any of the other scope criteria. This menu drives four Phase II menus. The Phase II menus allow the user to be specific in the task and milestone to be examined. The codes are divided into three sections (1) category, (2) subject, and (3) action. The user can select values for any or all of the sections. The coding was designed because of the diversity of names and descriptions used by the Project Engineers in their free form HTPM schedules and to permit the database user greater query power. The code menu is below:

| CODES |                                          |
|-------|------------------------------------------|
| (1)   | EXAMINE ALL TASKS AND MILESTONES         |
| (2)   | CHOOSE SPECIFIC TASK AND MILESTONE CODES |

Figure 4-7. Code Menu

Option (2) avails the user of more specific query options in Phase II.

(e) Schedule Additions and Deletions. This option will allow the user to compare the current program schedule against the previous schedule. This is a slow process because of the multiple comparisons between two large tables. The user can obtain listings of tasks and milestones added to the schedule since the last update, tasks and milestones removed since the last update, or only examine the current schedule. The default option is to examine the current schedule table. The schedule additions and deletions menu is below:

| SCHEDULE ADDITIONS AND DELETIONS |                                                    |
|----------------------------------|----------------------------------------------------|
| (1)                              | ONLY EXAMINE THE CURRENT SCHEDULE                  |
| (2)                              | TASKS AND MILESTONES ADDED SINCE THE LAST UPDATE   |
| (3)                              | TASKS AND MILESTONES REMOVED SINCE THE LAST UPDATE |

Figure 4-8. Schedule Additions and Deletions Menu

(f) Output. The user is allowed three modes for output, the screen, printer, or file. The default option is the screen. The output menu is below:

| DESTINATION OF OUTPUT |         |
|-----------------------|---------|
| (1)                   | SCREEN  |
| (2)                   | PRINTER |
| (3)                   | FILE    |

Figure 4-9. Output Section Menu

(g) Query Structure Completed. This option is entered when the user is satisfied with the options as they are presently and is prepared to enter phase 2, entering the specific values where appropriate.

(2) Phase II. The user selects detailed options for the query. Initially, the system will request specifics for all of the selections made in Phase I, where appropriate. After all of the specifics have been entered, the user will be able to modify any and all scope options. The initial menu for each scope option is the same as above; however, menus for four of the scope options are followed by additional menus or data requests.

(a) Projects. There are no additional data requests if option (1), "ALL PROJECTS IN THE DATABASE", was chosen from the project selection menu. If option (2), "ALL PROJECTS WITHIN A DIVISION", was chosen then the following menu will appear.

| DIVISIONS |                                        |
|-----------|----------------------------------------|
| (1)       | ALL DIVISIONS                          |
| (2)       | ENVIRONMENTAL CONTROL (FE)             |
| (3)       | FUEL AND WATER SUPPLY (FS)             |
| (4)       | MARINE (FR)                            |
| (5)       | MECHANICAL EQUIPMENT (FM)              |
| (6)       | POWER CONVERSION AND DISTRIBUTION (FC) |
| (7)       | POWER GENERATION (FG)                  |

Figure 4-10. Division Selection Menu

The user can select a specific Division by using the arrow keys or typing the associated number and pressing the <enter> key. If option, (3), "A SPECIFIC PROJECT", was selected then the user would need to enter the PMS number of the specific project to be examined. The PMS number entry is done in two parts, first, the user is asked whether the PMS number is known, second the user will enter the PMS number. The entry of the PMS number would be done through the following screens.

|                                              |
|----------------------------------------------|
| Do you know the PMS# of the Project (Y/N)? N |
| Enter a substring of the program name:       |
| STRING ----> TOTAL                           |

Figure 4-11. Query Screen

PMD will then look for all projects with names that contain "TOTAL" and when those programs are found they will be presented in the following screen.

| IN-DB | PMS# | Item                               |
|-------|------|------------------------------------|
| Y     | 531  | TOTAL ENVIRONMENTAL CONTROL SYSTEM |

Please enter the project's PMS number or  
enter <RETURN> if the number is unknown.

PMS number --> 531

Figure 4-12. Query Screen

PMD will accept the program number and record it in the PMD Scope Option Screen for the user to review.

(b) Dates. If option (1), "EXAMINE ALL TASKS AND MILESTONES", was chosen from the date selection menu, then there will be no additional data requests. Option (1) is the default value, for this and all menus. If option (2), "CHOOSE TASKS AND MILESTONES BETWEEN SPECIFIC DATES" was chosen, the user can examine tasks and milestones which occur between two dates, occur after a specific date, or occur before a specific date. The dates are entered in the following screen.

DATE FORMAT: MM-DD-YY  
ENTER <RETURN> FOR NO DATE.

ENTER EARLY DATE ---> 06-07-88  
ENTER LATE DATE ---> 06-07-89

Figure 4-13. Date Selection Screen

If the user enters dates in both the EARLY DATE and LATE DATE fields, then PMD will search for tasks and milestones which occur between these dates. If the user enters a date in only the EARLY DATE field, then PMD will search for tasks and milestones which occur after the early date. If the user enters a date in only the LATE DATE field, then PMD will search for tasks and milestones which occur before the late date. PMD will accept the dates and record them in the PMD Scope Option Screen for the user to review.

(c) Code. If option (1), "EXAMINE ALL TASKS AND MILESTONES", was selected from the codes menu, then there will be no additional data requests. If option (2), "CHOOSE SPECIFIC TASK AND MILESTONE CODES", then PMD will deliver the following code selection screen.

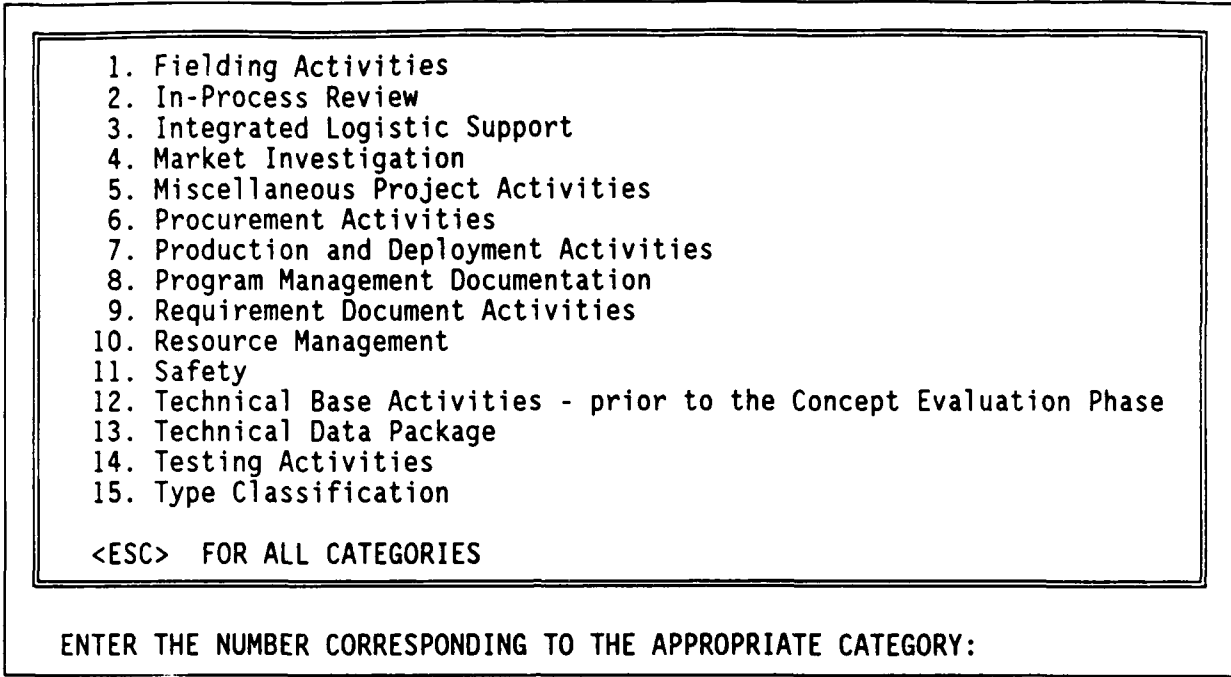
|                |                |
|----------------|----------------|
| CODES SELECTED |                |
| CATEGORY:      | All Categories |
| SUBJECT:       | All Subjects   |
| ACTION:        | All Actions    |

|     |                                  |
|-----|----------------------------------|
|     | CODE CHECK                       |
| (1) | ALL FIELDS ARE CORRECT           |
| (2) | CATEGORY FIELD IS INCORRECT      |
| (3) | SUBJECT FIELD IS INCORRECT       |
| (4) | ACTION/AGENCY FIELD IS INCORRECT |

Figure 4-14. Code Selection Screen

The top portion of the above screen contains selections which have been made and the bottom portion contains the code check menu. If option (1), "ALL FIELDS ARE CORRECT", is selected from the code check menu, then the values displayed in the top portion of the screen are recorded and displayed in the PMD Scope Option Screen. Options (2) through (4) will allow the user to define the search value of a particular field in the code. If option (2), "CATEGORY FIELD IS INCORRECT", is selected then the user will be presented with a menu with the following 15 category options (see below).

- 
- The screenshot shows a computer screen with a double-line border. Inside, there is a numbered list of 15 categories. Below the list, there is a line of text indicating the function of the escape key.
1. Fielding Activities
  2. In-Process Review
  3. Integrated Logistic Support
  4. Market Investigation
  5. Miscellaneous Project Activities
  6. Procurement Activities
  7. Production and Deployment Activities
  8. Program Management Documentation
  9. Requirement Document Activities
  10. Resource Management
  11. Safety
  12. Technical Base Activities - prior to the Concept Evaluation Phase
  13. Technical Data Package
  14. Testing Activities
  15. Type Classification
- <ESC> FOR ALL CATEGORIES

ENTER THE NUMBER CORRESPONDING TO THE APPROPRIATE CATEGORY:

Figure 4-15. Category Selection Screen

To choose a category, type the category number and press [enter]. The user can select only one category; however, if the category selected is incorrect the user has the option of correcting it. The default is all categories. If option (3), "SUBJECT FIELD IS INCORRECT", is chosen from the code selection menu, PMD will present the following 2 screen subject menu containing 76 subjects. (NOTE: As with the category field, the user can only specify a single subject for query purposes.)

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. MDR I</li> <li>2. MDR I/II</li> <li>3. MDR I/III</li> <li>4. MDR II</li> <li>5. MDR II/III</li> <li>6. MDR III</li> <br/> <li>7. Acquisition Plan</li> <li>8. Acquisition Strategy</li> <li>9. Baseline Cost Estimate</li> <li>10. BOIP and QPRI</li> <li>11. Concept Formulation Package</li> <li>12. Conference</li> <li>13. Configuration Management Plan</li> <li>14. Contract</li> <li>15. Daisy Chain</li> <li>16. Data</li> <li>17. Decision Coordinating Paper</li> <li>18. Development Line Item Number</li> <li>19. Document</li> </ul> | <ul style="list-style-type: none"> <li>20. Drawing</li> <li>21. Engineering Change Proposal</li> <li>22. Environmental Assessment</li> <li>23. Fielding</li> <li>24. First Article Test</li> <li>25. First Unit Equipped</li> <li>26. Follow-on Test and Evaluation</li> <li>27. Functional Configuration Audit</li> <li>28. Funds</li> <li>29. Hardware</li> <li>30. Health Hazard Assessment</li> <li>31. Human Factors Engineering</li> <li>32. Independent Evaluation Plan</li> <li>33. Independent Evaluation Report</li> <li>34. Initial Production Test</li> <li>35. ILSP</li> <li>36. Joint Working Group</li> <li>37. Logistics Support Analysis</li> <li>38. Market Investigation</li> <li>39. Materiel Fielding Plan</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SUBJECTS

- |                                                   |
|---------------------------------------------------|
| (1) DISPLAY THE NEXT PAGE<br>(2) SELECT A SUBJECT |
|---------------------------------------------------|

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>40. National Stock Number</li> <li>41. New Equipment Training</li> <li>42. O&amp;O Plan</li> <li>43. Package</li> <li>44. Physical Configuration Audit</li> <li>45. Producibility Engineering Plan</li> <li>46. Production</li> <li>47. Production Readiness Review</li> <li>48. Proposal</li> <li>49. Prototype</li> <li>50. Provisioning</li> <li>51. Purchase Description</li> <li>52. RAM</li> <li>53. Report</li> <li>54. Required Operational Capability</li> <li>55. Safety and Health Data Sheet</li> <li>56. Safety Assessment Report</li> <li>57. Safety Release</li> <li>58. Software</li> <li>59. Solicitation</li> </ul> | <ul style="list-style-type: none"> <li>60. Special Program Tests</li> <li>61. Standard Study Number</li> <li>62. Statement Of Work</li> <li>63. System Concept Paper</li> <li>64. System MANPRINT Management Plan</li> <li>65. System Support Package</li> <li>66. Technical Assistance</li> <li>67. Technical Manual</li> <li>68. Technical Test I</li> <li>69. Technical Test II</li> <li>70. Test Evaluation Master Plan</li> <li>71. Test Integration Working Group</li> <li>72. Test Plan</li> <li>73. Training</li> <li>74. Transportability Plan</li> <li>75. User Test I</li> <li>76. User Test II</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SUBJECTS

- |                                                       |
|-------------------------------------------------------|
| (1) DISPLAY THE PREVIOUS PAGE<br>(2) SELECT A SUBJECT |
|-------------------------------------------------------|

Figure 4-16. Subject Selection Screens

To view the subjects on the other screen, the user should select option (1) from the subjects menu. To choose a subject, select option (2), "SELECT A SUBJECT", from the subjects menu. PMD will then request that the user type the subject number and press <enter>. The default is all subjects and this menu can be exited by pressing the <esc> key. If option (4), "ACTION FIELD IS INCORRECT", is chosen from the code check menu (see Figure 4-14), the following actions menu will appear listing the 59 action verbs/nouns from which the user can choose. The user can either choose to change or not change the action verb, the default is all action verbs/nouns. Choosing option (1), "DISPLAY THE AGENCIES MENU", will exit the user from the menu (see Figure 4-18). Choosing option (2), "SELECT AN ACTION", will allow the user to select the action from the following list. (NOTE: Verbs/nouns with similar meanings will have the same action code.) PMD will request the number of the action the user wants to select. The selection will be displayed in the PMD Scope Option Screen.

|                     |                     |                  |
|---------------------|---------------------|------------------|
| 1. appraise         | 21. estimate        | 41. prove        |
| 2. approve          | 22. evaluate        | 42. ready        |
| 3. available        | 23. fabricate (HDW) | 43. receive      |
| 4. award            | 24. finalize        | 44. release      |
| 5. begin            | 25. forward         | 45. report       |
| 6. build (HDW)      | 26. forward         | 46. return       |
| 7. charter          | 27. identify        | 47. review       |
| 8. circulate        | 28. integrate (DOC) | 48. select       |
| 9. complete         | 29. integrate (HDW) | 49. ship         |
| 10. conduct         | 30. issue           | 50. staff        |
| 11. construct (HDW) | 31. MARB            | 51. start        |
| 12. coordinate      | 32. MARC            | 52. submit       |
| 13. define          | 33. meeting         | 53. support      |
| 14. deliver         | 34. modify (DOC)    | 54. test         |
| 15. demonstrate     | 35. modify (HDW)    | 55. transfer     |
| 16. design          | 36. move            | 56. write (DOC)  |
| 17. develop (DOC)   | 37. notify          |                  |
| 18. develop (HDW)   | 38. perform         | 57. first phase  |
| 19. distribute      | 39. prepare (DOC)   | 58. second phase |
| 20. draft (DOC)     | 40. process         | 59. third phase  |

ACTIONS

(1) DISPLAY THE AGENCIES MENU

(2) SELECT AN ACTION

(DOC refers to documents and HDW refers to hardware.)

Figure 4-17. Action Selection Screen

d. Output. The user is provided with three output options. The output can be directed to the screen, printer, or a file. If the screen or printer options are chosen from the destination of output menu, PMD will return to the PMD Scope Option Screen. However, if the option (3), "FILE", is selected, the following screen will appear. The user will type in the path and file name of the output file. If the <enter> key is pressed without typing a file name then the system will select the screen as the output. The user should note the warning.

ENTER <RETURN> FOR NO FILE.  
  
ENTER THE PATH AND FILE NAME: C:\MS\OUTPUT\EXAMPLE

\*\*\*\* CAUTION DO NOT ENTER THE NAME OF A FILE WHICH CURRENTLY EXISTS! \*\*\*\*  
=====

Figure 4-18. File Output Selection Screen

Below is displayed an example of a PMD Scope Option Screen with the values entered for an example query. The user would enter option (7), "QUERY STRUCTURE COMPLETED", when satisfied with the values selected.

\*\*\*\* PRESS <ESC> TO END THE QUERY SESSION \*\*\*\*

- (1) PROJECTS
- (2) DATES
- (3) STATUS
- (4) CODE
- (5) SCHEDULE ADDITIONS AND DELETIONS
- (6) OUTPUT
- (7) QUERY STRUCTURE COMPLETED

c. Printing Program Management Data Sheets. To print PMDSs choose option (2), "PRINT PMDS SHEETS", from the PMD introductory menu (see Figure 4-2), after which the following screen will appear.

| DESTINATION OF OUTPUT |         |
|-----------------------|---------|
| (1)                   | SCREEN  |
| (2)                   | PRINTER |
| (3)                   | FILE    |

Figure 4-20. PMDSs Output Selection Screen

This is the introductory screen to the PMDS report facility of PMD. At the bottom of the screen, the user can select where the output will be sent: screen, printer, or file. If the user chooses to send the output to a file, the system will request the path and file name. The destination file naming procedure is identical to that of the Generalized Query portion of PMD. Should the printer option be chosen, the printer needs to be set with a pitch of 12 characters per inch. If a 12 pitch printer is not connected to the computer, then the output should be sent to a file for transport to a printer with 12 pitch print. Following output selection, the user is requested to select the breadth of LED to be covered by this report. Options include all projects in LED, all projects within a Division, a specific project, or to quit the PMDS report facility and return to the PMD introductory menu. The PMDS report project selection menu appears below.

| PMDS REPORT PROJECT SELECTION |                                  |
|-------------------------------|----------------------------------|
| (1)                           | ALL PROJECTS WITHIN THE DATABASE |
| (2)                           | ALL PROJECTS WITHIN A DIVISION   |
| (3)                           | A SPECIFIC PROJECT               |
| (4)                           | QUIT PMDS REPORT APPLICATION     |

Figure 4-21. PMDS Report Project Selection Screen

Option (1), "ALL PROJECTS WITHIN THE DATABASE", is the default value. Should the user choose either option (2), "ALL PROJECTS WITHIN A DIVISION", or option (3), "A SPECIFIC PROJECT", the system will request additional information in the same fashion as this information was requested in the Generalized Query portion of PMD. However, the selection verification process is different. The figures below will demonstrate the difference. The first is for the selection of all the projects in a Division. If the choice is correct the user would enter a "Y" for yes.

YOU HAVE CHOSEN:

DIVISION: Environmental Control (FE)

IS THIS SELECTION CORRECT (Y/N)?

Figure 4-22. Division Verification Screen

The next figure displays the verification for a specific project, if the selection is correct, the user should respond with a "Y" for yes.

YOU HAVE CHOSEN:

PMS NUMBER: 531  
PROJECT: TOTAL ENVIRONMENTAL CONTROL SYSTEM

IS THIS SELECTION CORRECT (Y/N)?

Figure 4-23. Project Verification Screen

If the selections were incorrect, the user would answer with a "N" for no and the system will request which Division or project the user is interested in. When the PMDS sheets have been generated the system will respond by asking the user whether there are additional PMDS sheets to be printed.

NOTE: If the response is affirmative ("Y"), the output was sent to a file, and the user wants to send additional output to a file; the additional output must be sent to a file with a different name. If this precaution is not taken, the data which has already been written to the file will be replaced with the new data.



| DIVISIONS |                                        |
|-----------|----------------------------------------|
| (1)       | ALL DIVISIONS                          |
| (2)       | ENVIRONMENTAL CONTROL (FE)             |
| (3)       | FUEL AND WATER SUPPLY (FS)             |
| (4)       | MARINE (FR)                            |
| (5)       | MECHANICAL EQUIPMENT (FM)              |
| (6)       | POWER CONVERSION AND DISTRIBUTION (FC) |
| (7)       | POWER GENERATION (FG)                  |

PRESS <ESC> TO EXIT.

Figure 4-25. DCR Division Selection Menu

The selection verification process is similar to that of the PMDS report facility. The figure below will illustrate the procedure. The system will display the selection of a particular Division or all Divisions. If the choice is correct the user would confirm by entering a "Y" for yes.

|                                  |
|----------------------------------|
| YOU HAVE CHOSEN:                 |
| DIVISION: All Divisions          |
| IS THIS SELECTION CORRECT (Y/N)? |

Figure 4-26. Division Verification Screen

Should the selection be incorrect, the user would answer with a "N" for no and the system will ask whether the user would like to print additional DCRs. When the DCR has been generated, the system will respond by asking the user whether there are additional DCRs to be printed.

NOTE: If the response is affirmative ("Y"), it should again be noted that if the output was sent to a file and the user wants to send additional output to a file, the additional output must be sent to a file with a different name. If this precaution is not taken, then the data which has already been written to the file will be replaced with the new data.

e. Exiting PMD. After the user returns to the PMD introductory menu, the user need only enter option (4), "ADHOC QUERIES" or press the <Esc> as directed on the screen to exit PMD. Following either procedure will result in the screen below.

A screenshot of a computer screen showing a menu titled "PROGRAM MANAGEMENT SYSTEM". The menu is enclosed in a rectangular border and contains four numbered options: (1) BEGIN GENERALIZED QUERIES, (2) PRINT PMDS SHEETS, (3) PRINT DIVISION CHIEF REPORTS, and (4) ADHOC QUERIES. Below the menu, the prompt "R>" is visible. At the bottom of the screen, the text "PRESS <ESC> TO EXIT." is displayed.

```
PROGRAM MANAGEMENT SYSTEM
(1) BEGIN GENERALIZED QUERIES
(2) PRINT PMDS SHEETS
(3) PRINT DIVISION CHIEF REPORTS
(4) ADHOC QUERIES

R>

PRESS <ESC> TO EXIT.
```

Figure 4-27. PMS Option Screen

If you would like to exit R:BASE, just type EXIT at the "R" prompt as shown below.

R> EXIT

This will return you to the MS-DOS operating environment.

f. Adhoc Queries. The user can also access the database directly from the "R" prompt by entering the following:

R> OPEN MS

This command will provide access to the database. R:BASE provides an assistant for both experienced and novice users. The assistant can be activated by entering the following command at the "R" prompt:

R> PROMPTS

The following assist screen will appear:

|                                                                                                                                                                           |                            |                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------|
| Prompts are organized under these topics.<br>For a list of commands that have prompts, choose All commands.<br><br>To leave PROMPTS for R:BASE command mode, press [ESC]. |                            |                         |
| <u>Data Manipulation</u>                                                                                                                                                  | <u>Database Operations</u> | <u>Utilities</u>        |
| Look at data                                                                                                                                                              | Open a database            | Application development |
| Print data                                                                                                                                                                | Exit                       | Database maintenance    |
| Add data                                                                                                                                                                  | Data Input                 | R:BASE environment      |
| Edit data                                                                                                                                                                 | Data Output                | Edit an ASCII file      |
| Import/export data                                                                                                                                                        | Create a database          | DOS functions           |
| Relational operations                                                                                                                                                     | Modify a database          | All commands            |

Figure 4-28. R:Base Prompt Screen

Details in how to use this option are found in your R:Base User Manual.

## 5. BACKING UP THE DATABASE

It is recommended that one or more backups of the latest version of the database be maintained. Furthermore, since one installation of the database is to serve as the Master Station for maintenance purposes, it is necessary to make copies of the database files to be distributed periodically to Remote Stations. The following procedures can be used to make backup copies of the database.

Use the MS-DOS BACKUP command to copy the database files onto diskettes. Obtain enough formatted diskettes to hold all of the database files. (A double density 5¼ floppy diskette will store approximately 360 Kb of data. This number can be used to determine the number of diskettes required.) The files containing the database are MS1.RBF, MS2.RBF, and MS3.RBF.

**CAUTION:** Any files currently in the root directory of the diskettes used for the backup will be destroyed by the BACKUP command.

If you must format any diskettes, perform the procedure below:

```
C> [drive:][\path\]FORMAT A:
```

Respond as directed by the prompts. Refer to your MS-DOS manual to answer further questions about the format command.

To backup the database use the following MS-DOS commands:

```
C> CD\MS
```

```
C> [drive:][\path\]BACKUP C:MS*.RBF A:
```

Respond to the prompts to insert the diskettes into drive A: and press a key to continue. Be sure to note on the backup diskettes which is the first, second, third, etc. (attaching labels with the relevant information would be helpful). Refer to your MS-DOS manual to answer any further questions.

## 6. CODING SYSTEM

The database has been organized using a simple coding system which facilitates the selection of detailed program data from a database containing diverse program data. The code consists of three parts: category, subject, and action/agency. The user can obtain information on tasks and milestones which meet permutations of the three fields. The figure below displays the structure of the code.

| CATEGORY     | SUBJECT      | ACTION/AGENCY |
|--------------|--------------|---------------|
| 2 characters | 3 characters | 3 characters  |
| 8 characters |              |               |

Figure 6-1. Code Layout Structure

Below there are three figures which contain the codes used in PMD. The figures are displayed in the following order (1) Categories, (2) Subjects, and (3) Actions/Agencies (the same order as in the task and milestone code).

| CATEGORIES |                                                               |
|------------|---------------------------------------------------------------|
| IL         | Integrated Logistic Support                                   |
| IP         | In-Process Review                                             |
| MK         | Market Investigation                                          |
| MP         | Miscellaneous Project Activities                              |
| PD         | Production & Deployment Phase Activities                      |
| PM         | Programmatic Documentation                                    |
| PR         | Procurement Activities                                        |
| RM         | Resource Management                                           |
| RQ         | Requirement Document Activities                               |
| SA         | Safety                                                        |
| TB         | Technical Base Activities - prior to Concept Evaluation Phase |
| TC         | Type Classification                                           |
| TD         | Technical Data Package                                        |
| TS         | Testing Activities                                            |

Figure 6-2. Category Code Menu

| SUBJECTS                             |                                     |
|--------------------------------------|-------------------------------------|
| 1 Milestone Decision Review I        | LSA Logistics Support Analysis      |
| 1/2 Milestone Decision Review I/II   | MFP Materiel Fielding Plan          |
| 1/3 Milestone Decision Review I/III  | PRL Proposal                        |
| 2 Milestone Decision Review II       | MKT Market Investigation            |
| 2/3 Milestone Decision Review II/III | MTL Materiel                        |
| 3 Milestone Decision Review III      | NET New Equipment Training          |
| AQS Acquisition Strategy             | O&O O&O Plan                        |
| BOI Basis of Issue Plan              | PAP Procurement Acquisition Plan    |
| CMP Configuration Management Plan    | PCA Physical Configuration Audit    |
| CNF Conference                       | PEP Producibility Engineering Plan  |
| CNT Contract                         | PKG Package                         |
| COS Cost                             | PLN Plan                            |
| D&V Demonstration and Validation     | PRR Production Readiness Review     |
| DAT Data                             | PRV Provisioning                    |
| DFT Draft                            | ROC Required Operational Capability |
| DOC Document                         | RVW Review                          |
| DSY Daisy Chain                      | SAR Safety Assessment Report        |
| DWG Drawing                          | SHD Safety and Health Data Sheet    |
| ECP Engineering Change Proposal      | SOL Solicitation                    |
| FAT First Article Test               | SR Safety Release                   |
| FCA Functional Configuration Audit   | SSP System Support Package          |
| FLD Fielding                         | STD Standard                        |
| FND Funds                            | TM Technical Manual                 |
| FOT Follow-on Test and Evaluation    | TMP Test Evaluation Master Plan     |
| FUE First Unit Equipped              | TPL Test Plan                       |
| HHA Health Hazard Assessment         | TRN Training                        |
| HDW Hardware                         | TRP Transportability Plan           |
| IEP Independent Evaluation Plan      | TT1 Technical Test I                |
| IER Independent Evaluation Report    | TT2 Technical Test II               |
| INV Investigation                    | TWG Test Working Integration Group  |
| JWG Joint Working Group              | UT1 User Test I                     |
|                                      | UT2 User Test II                    |

Figure 6-3. Subject Code Menu

| ACTION VERBS/NOUNS |                 |           |                 |
|--------------------|-----------------|-----------|-----------------|
| appraisal          | EVL             | integrate | PRP - DOCUMENTS |
| approve            | APR             |           | FAB - HARDWARE  |
| available          | AVL             | issue     |                 |
| award              | AWD             | MARB      | MRB             |
| build              | FAB - HARDWARE  | MARC      | MRC             |
| charter            | CHT             | meeting   | MTG             |
| circulate          | CRD             | modify    | PRP - DOCUMENTS |
| completed          | CMP             |           | FAB - HARDWARE  |
| conduct            | CND             | notify    | CRD             |
| construction       | FAB - HARDWARE  | prepare   | PRP             |
| coordinate         | CRD             | process   | CND             |
| define             | IDY             | prove     | DEM             |
| deliver            | DLV             | ready     | AVL             |
| demonstrate        | DEM             | received  | RCV             |
| design             | DSN             | release   | RLS             |
| develop            | PRP - DOCUMENTS | report    | RPT             |
|                    | FAB - HARDWARE  | return    | CRD             |
| distribute         | CRD             | review    | REV             |
| estimate           | EVL             | select    | SLT             |
| evaluate           | EVL             | start     | SRT             |
| fabricate          | FAB - HARDWARE  | submit    | SUB             |
| finalize           | FNL             | support   | SPT             |
| forward            | CRD             | transfer  | TFR             |
| identify           | IDY             | update    | UPD             |
| install            | FAB - HARDWARE  |           |                 |

Figure 6-3. Action Verb/Noun Code Menu

| AGENCIES                                                               |     |
|------------------------------------------------------------------------|-----|
| All Agencies                                                           | ??? |
| Contractor                                                             | CTR |
| Customer                                                               | CUS |
| Defense Logistic Agency (DLA)                                          | DLA |
| Department of Defense (DOD)                                            | DOD |
| Department of the Army (DA)                                            | DA  |
| General Services Administration (GSA)                                  | GSA |
| Government                                                             | GVT |
| Occupational Safety and Health Administration (OSHA)                   | OSA |
| Office of Management and Budget (OMB)                                  | OMB |
| Program Management Division (PMD) (BELVOIR)                            | PMD |
| Solider Support Center, National Capital Region (SSC-NCR)              | SSC |
| The Adjutant General (TAG)                                             | TAG |
| US Army Belvoir Research, Development and Engineering Center (BELVOIR) | BEL |
| US Army Depot System Command (DESCOM)                                  | DES |
| US Army Development Employment Agency (ADEA)                           | ADA |
| US Army Engineer School (USAENS)                                       | ENS |
| US Army Equipment Authorization Review Activity (EARA)                 | ERA |
| US Army Forces Command (FORSCOM)                                       | FOR |
| US Army Human Engineering Laboratory (HEL)                             | HEL |
| US Army Laboratory Command (LABCOM)                                    | LAB |
| US Army Logistic Center (LOGCEN)                                       | LOG |
| US Army Logistics Evaluation Agency (USALEA)                           | LEA |
| US Army Materiel Command (AMC)                                         | AMC |
| US Army Materiel Readiness Support Activity (MRSA)                     | MRS |
| US Army Military Traffic Management Command (MTMC)                     | MTM |
| US Army Operational Test and Evaluation Agency (OTEA)                  | OTE |
| US Army Quartermaster School                                           | QMS |
| US Army Tank-Automotive Command (TACOM)                                | TAC |
| US Army Test and Evaluation Command (TECOM)                            | TEC |
| US Army Training and Doctrine Command (TRADOC)                         | TRA |
| US Army Troop Support Command (TROSCOM)                                | TRO |

Figure 6-4. Agency Code Menu

## ANNEX B

### PROGRAM MANAGEMENT DATA SHEET

This Annex contains the PMDS used in the Validation Test. It has subsequently been revised. The revised version is at Appendix C of the Final Technical Report.

GENERAL -

## SECTION A (General Information)

### SECTION B (Brief Description of the Project)

### SECTION C (Critical Milestone Data)

This section contains critical milestones necessary for a PE to manage a typical project. The milestones are not necessarily in the order of a tailored acquisition process. Fill in the estimated dates and actual dates (if known) for each milestone listed. If a milestone is not applicable to the project, enter "NA". The standard field descriptions and Army Codes have also been provided to assist in making your own HTPM schedule, if desired.

| <u>Milestone</u>              | <u>Field Description</u> | <u>Code</u> | <u>Est. Date</u> | <u>Actual Date</u> |
|-------------------------------|--------------------------|-------------|------------------|--------------------|
| O&O Plan MARC                 | O&O PLN MARC             | B0350       |                  |                    |
| O&O Plan Approved             | O&O PLAN APR             | AMMS1005    |                  |                    |
| Initial AS MARC               | INIT AS MARC             | B0450       |                  |                    |
| Acquisition Strategy Dev      | AQ STRAT DEV             | AMMS1006    |                  |                    |
| Market Investigation Complete | MAR INV COMP             | AMMS1020    |                  |                    |
| Rqd. Operational Cap. MARC    | ROC MARC                 | None        |                  |                    |
| ROC Aprv by HQ TRADOC         | ROC APPROVED             | AMMS1047    |                  |                    |
| MARB Convened MDR I           | MARB MDR I               | AMMS1087    |                  |                    |
| Initial Production Readiness  | PRR COMP                 | AMMS1090    |                  |                    |
| IPR Milestone Decision Rev I  | MILESTONE 1              | AMMS1999    |                  |                    |
| IPR Milestone Decision Rev II | MILESTONE 2              | AMMS2999    |                  |                    |
| D&V Contract Award            | D&V AWARD                | AMMS2015    |                  |                    |
| Technical Test I Start        | TT I START               | AMMS2130    |                  |                    |
| Technical Test I Complete     | TT I COMP                | AMMS2140    |                  |                    |
| User Test I Start             | UT I START               | AMMS2180    |                  |                    |
| User Test I Complete          | UT I COMP                | AMMS2190    |                  |                    |
| Full Scale Development Award  | FSD AWARD                | AMMS3001    |                  |                    |
| Technical Test II Start       | TT II START              | AMMS3240    |                  |                    |
| Technical Test II Complete    | TT II COMP               | AMMS3250    |                  |                    |
| User Test II Start            | UT II START              | AMMS3300    |                  |                    |
| User Test II Complete         | UT II COMP               | AMMS3310    |                  |                    |
| MARB Convened MDR III         | MARB MDR III             | AMMS3795    |                  |                    |
| IPR Milestone Dec Rev III     | MILESTONE 3              | AMMS3999    |                  |                    |
| Production Contract Award     | PROD AWARD               | AMMS4005    |                  |                    |
| First Unit Equipped Date      | FUED                     | AMMS4620    |                  |                    |
| IPR Milestone Dec Rev I/II    | MILESTONE 12             | B1083       |                  |                    |
| Proof of Principle Award      | POP AWARD                | None        |                  |                    |
| IPR Milestone Dec Rev I/III   | MILESTONE 13             | None        |                  |                    |
| MARC for BELVOIR's IPR        | PRE-IPR MARC             | None        |                  |                    |
| Special IPR                   | SPECIAL IPR              | None        |                  |                    |
| Proof of Principle Award      | POP AWARD                | None        |                  |                    |
| Proof of Principle Test Start | POPT START               | None        |                  |                    |
| Proof of Principle Test Comp  | POPT COMP                | None        |                  |                    |
| Follow-on T&E Start           | FOT&E START              | None        |                  |                    |
| Follow-on T&E Complete        | FOT&E COMP               | None        |                  |                    |
| First Article Test Start      | FAT START                | None        |                  |                    |
| First Article Test Complete   | FAT COMP                 | None        |                  |                    |
| Proc. Acquisition Plan MARC   | PAP MARC                 | None        |                  |                    |
| Req. Oper. Capability MARC    | ROC MARC                 | None        |                  |                    |
| Proveout Award                | PROVOUT AWRD             | None        |                  |                    |

## SECTION D (Milestones/Tasks Occurring in the Next 18 Months)

This section contains additional milestones and tasks that could occur during the course of an acquisition program. Below each major heading are tasks and milestones that must be considered if they are scheduled to occur within the next 18 months. Blanks are also provided under each major heading to permit you to enter any tasks/milestones that you desire to list in order to effectively manage your project. Standardized field descriptions and codes are provided for those PEs desiring to develop their own HTPM schedules. PEs who desire PMD personnel to develop a HTPM schedule for them should either (1) fill in the estimated start and finish dates for each milestone/task expected to occur in the next 18 months, or (2) enter the start date of each of the events you wish to schedule and provide estimated duration times (in work days) for all task/milestones you have added (Changes to the stated estimated durations are permitted). In the latter case, earliest and latest start dates will be computed automatically by HTPM software using estimated duration times provided. NOTE: Milestones listed in Section C are not repeated in this section.

| <u>Task/Milestone</u>                          | <u>Field Description</u> | <u>Code</u> | <u>Est. Duration (Workday)</u> | <u>Start Date</u> | <u>Finish Date</u> |
|------------------------------------------------|--------------------------|-------------|--------------------------------|-------------------|--------------------|
| <u>Test and Evaluation Master Plan (TEMP):</u> |                          |             |                                |                   |                    |
| TIWG Established                               | TIWG CHARTER             | None        | 0                              | _____             | _____              |
| IEP Received From TRADOC                       | IEP TRADOC               | None        | 60                             | _____             | _____              |
| IEP Received From TECOM                        | IEP TECOM                | None        | 60                             | _____             | _____              |
| IEP Approved                                   | IEP APPROVED             | None        | 0                              | _____             | _____              |
| Prepare TEMP                                   | PREPARE TEMP             | None        | 22                             | _____             | _____              |
| Send out TEMP for Comment                      | SENDOUT TEMP             | None        | 22                             | _____             | _____              |
| TIWG Meeting                                   | TIWG MEETING             | None        | 0                              | _____             | _____              |
| TEMP Developed                                 | TEMP DEVELOP             | AMMS1055    | 0                              | _____             | _____              |
| _____                                          | _____                    | _____       | _____                          | _____             | _____              |
| _____                                          | _____                    | _____       | _____                          | _____             | _____              |
| _____                                          | _____                    | _____       | _____                          | _____             | _____              |
| _____                                          | _____                    | _____       | _____                          | _____             | _____              |

### Acquisition Strategy (AS):

|                            |              |          |       |       |       |
|----------------------------|--------------|----------|-------|-------|-------|
| TIWG Established           | TIWG CHARTER | None     | 0     | _____ | _____ |
| Write Acquisition Strategy | PREPARE AS   | AMMS1006 | 20    | _____ | _____ |
| Initial AS MARC            | INIT AS MARC | B0450    | 0     | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |

## (Section D Cont.)

| <u>Task/Milestone</u>               | <u>Field Description</u> | <u>Code</u> | <u>Est. Duration (Workday)</u> | <u>Start Date</u> | <u>Finish Date</u> |
|-------------------------------------|--------------------------|-------------|--------------------------------|-------------------|--------------------|
| <u>Independent Evaluation (IE):</u> |                          |             |                                |                   |                    |
| IEP Received From TRADOC            | IEP TRADOC               | None        | 60                             | _____             | _____              |
| IEP Received From TECOM             | IEP TECOM                | None        | 60                             | _____             | _____              |
| IEP Approved                        | IEP APPROVED             | None        | 0                              | _____             | _____              |
| IER Received From TRADOC            | IER TRADOC               | None        | 60                             | _____             | _____              |
| IER Received From TECOM             | IER TECOM                | None        | 60                             | _____             | _____              |
| IER Approved                        | IER APPROVED             | None        | 0                              | _____             | _____              |
| _____                               | _____                    | _____       | _____                          | _____             | _____              |
| _____                               | _____                    | _____       | _____                          | _____             | _____              |
| _____                               | _____                    | _____       | _____                          | _____             | _____              |

BOIP/OOPRI Events:

|                            |              |          |       |       |       |
|----------------------------|--------------|----------|-------|-------|-------|
| BOIP Feeder Data Submitted | BOIP FED DAT | AMMS2095 | 8     | _____ | _____ |
| BOIP Approved              | BOIP APPROVD | AMMS2250 | 0     | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |
| _____                      | _____        | _____    | _____ | _____ | _____ |

Integrated Logistic Support (ILS):

|                      |              |          |       |       |       |
|----------------------|--------------|----------|-------|-------|-------|
| Prepare ILSP         | PREPARE ILSP | None     | 30    | _____ | _____ |
| TROSCOM ILSP         | TROSCOM ILSP | None     | 90    | _____ | _____ |
| ILS Mgt Team Meeting | ILSMTMEETING | AMMS1030 | 0     | _____ | _____ |
| SUBCOM ILSP          | SUBCOM ILSP  | None     | 90    | _____ | _____ |
| _____                | _____        | _____    | _____ | _____ | _____ |
| _____                | _____        | _____    | _____ | _____ | _____ |

Technical Data Package (TDP):

|                            |              |          |       |       |       |
|----------------------------|--------------|----------|-------|-------|-------|
| Starting & Completing Date | START COMP   | None     | 0     | _____ | _____ |
| Packaging of Data          | PACKAGING    | None     | _____ | _____ | _____ |
| Material                   | MATERIAL     | None     | _____ | _____ | _____ |
| Safety                     | SAFETY       | None     | _____ | _____ | _____ |
| Engine (When Used)         | ENGINE       | None     | _____ | _____ | _____ |
| Quality & Reliability      | Q & R        | None     | _____ | _____ | _____ |
| Initial Document Draft     | DRAFT STDZN  | None     | _____ | _____ | _____ |
| Type & Print Document      | TYPE & PRINT | None     | _____ | _____ | _____ |
| Circulation of Document    | CIRCUL DOC   | None     | _____ | _____ | _____ |
| Res. & Prep. Final Draft   | RESOLVE COMS | None     | _____ | _____ | _____ |
| Final Draft Standardized   | FINAL DRAFT  | AMMS3175 | _____ | _____ | _____ |
| Type, Aprv, Number, & Date | TYPE & APR   | None     | _____ | _____ | _____ |
| Submit ECP                 | SUBMIT ECP   | None     | _____ | _____ | _____ |

ENCLOSURE 1: TEXT DATA FIELDS USED IN THE PROGRAM MANAGEMENT SYSTEM DATABASE

TABLE 1 - The following table contains the PMS number and name of each program in the database sorted by the program name.

| <u>PMS<br/>NUMBER</u> | <u>PROGRAM<br/>NAME</u>                                  |
|-----------------------|----------------------------------------------------------|
| 228                   | 10KW 28V AVIATION DC GENERATOR SET (START CART)          |
| 383                   | 15 AND 30 KW NOISE KITS                                  |
| 60                    | 150,000 BTUH MULTIFUEL ARMY SPACE HEATER                 |
| 685                   | 20KW REGENCY NET POWER UNIT                              |
| 830                   | 25 TON ALL TERRAIN CRANE                                 |
| 143                   | 2KVA POWER CONDITIONER                                   |
| 727                   | 3 PERSON PNEUMATIC BOAT/ENGINEERING SUPPORT              |
| 427                   | 3000 GPH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU) |
| 21421                 | 3KW FREE PISTON STIRLING                                 |
| 858                   | 3KW MAN PORTABLE GENERATOR SET                           |
| 20792                 | 4K ELECTRIC/PNEUMATIC FORKLIFT                           |
| 20791                 | 6K#/6K# FRONT/SIDE LOADER                                |
| 144                   | 6KVA POWER CONDITIONER                                   |
| 229                   | 750KW, 60 HZ GENERATOR SET                               |
| 793                   | ADVANCED PULSE POWER (HI-POWER MICROWAVE)                |
| 28061                 | AIR TRANSPORTABLE LIFTING DEVICE - 15K                   |
| 28062                 | AIR TRANSPORTABLE LIFTING DEVICE - 42K                   |
| 758                   | ARAPAHO                                                  |
| 882                   | ARMY OIL ANALYSIS MOBILE LABORATORY                      |
| 20794                 | AUTHORIZED STOCKAGE LIST (ASL) VAN                       |
| 645                   | AUTOMATED PIPELINE EQUIPMENT SYSTEM                      |
| 844                   | BOAT, LANDING, INFLATABLE ASSAULT CRAFT (M238)           |
| 841                   | CANTILEVERED ELEVATED CAUSEWAY (R097)                    |
| 414                   | CAUSEWAY (FLOATING) ENGINEERING SUPPORT                  |
| 840                   | CAUSEWAY FERRY ENGINEERING SUPPORT                       |
| 65                    | COMBAT VEHICLE ENVIRONMENTAL SUPPORT SYSTEM              |
| 718                   | COMMERCIAL GENERATOR SET AND ASSEMBLAGES                 |
| 23621                 | DEPLOYABLE MEDICAL SYSTEM                                |
| 371                   | DISTRIBUTION/ILLUMINATION SET, ELECTRICAL                |
| 861                   | DIVING AIR CONTROL CONSOLE                               |

| PMS<br>NUMBER | PROGRAM<br>NAME                                                   |
|---------------|-------------------------------------------------------------------|
| 729           | EXTREME ENVIRONMENT                                               |
| 798           | FIELD HOSPITAL UNIT SYSTEM                                        |
| 20793         | FLEX PALLET SYSTEM                                                |
| 832           | HI TECH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)           |
| 714           | INLINE VEHICLE GENERATOR                                          |
| 848           | INTELLIGENT LOAD MANAGEMENT                                       |
| 411           | LANDING CRAFT UTILITY (LCU) - 2000 ENGINEERING SUPPORT            |
| 839           | LARGE TUG - ENGINEERING SUPPORT                                   |
| 20814         | LCM - 8 SLEP [WATERCRAFT PROD IMPROVE PGM-OMA DIRECT(DISP CRAFT)] |
| 4.2           | LOGISTIC SUPPORT VESSEL                                           |
| 159           | M113 ELECTRIC DRIVE PROJECT                                       |
| 829           | MODULAR BASE PETROLEUM LABORATORY                                 |
| 493           | PATRIOT 150KW TURBINE GENERATOR SET                               |
| 668           | PU-617 DIESEL REPLACEMENT                                         |
| 29            | PULSE POWER                                                       |
| 606           | REPAIR OUTFIT FOR THE REPAIR OF COLLAPSIBLE TANKS AND DRUMS       |
| 413           | RORO DISCHARGE PLATFORM ENGINEERING SUPPORT                       |
| 74            | ROUGH TERRAIN CONTAINER STRADDLE TRUCK                            |
| 722           | SELF DEPLOYABLE MATERIALS HANDLING EQUIPMENT                      |
| 734           | SIGNATURE SUPPRESSED DIESEL ENGINE DRIVEN (SSDED) GENERATOR SET   |
| 363           | SINGLE CHANNEL OBJECTIVE TACTICAL TERMINAL (SCOTT)                |
| 838           | SMALL TUG - ENGINEERING SUPPORT                                   |
| 528           | STABILIZATION OF SHIP/LIGHTER INTERFACE                           |
| 531           | TOTAL ENVIRONMENTAL CONTROL SYSTEM                                |
| 88            | TRIDENT II BOXCAR                                                 |
| 403           | UNIT BASIC LOAD-UPLOAD EQUIPMENT                                  |
| 20795         | UNIVERSAL CRANE SPREADER                                          |
| 721           | UNIVERSAL SELF-DEPLOYABLE CARGO HANDLER                           |
| 494           | WATER PURIFICATION COMPONENTS                                     |

**TABLE 2** - The following table contains the PMS number and name of each program in the database sorted by the PMS number.

| <b>PMS<br/>NUMBER</b> | <b>PROGRAM<br/>NAME</b>                                     |
|-----------------------|-------------------------------------------------------------|
| 29                    | PULSE POWER                                                 |
| 60                    | 150,000 BTUH MULTIFUEL ARMY SPACE HEATER                    |
| 65                    | COMBAT VEHICLE ENVIRONMENTAL SUPPORT SYSTEM                 |
| 74                    | ROUGH TERRAIN CONTAINER STRADDLE TRUCK                      |
| 88                    | TRIDENT II BOXCAR                                           |
| 143                   | 2KVA POWER CONDITIONER                                      |
| 144                   | 6KVA POWER CONDITIONER                                      |
| 159                   | M113 ELECTRIC DRIVE PROJECT                                 |
| 228                   | 10KW 28V AVIATION DC GENERATOR SET (START CART)             |
| 229                   | 750KW, 60 HZ GENERATOR SET                                  |
| 363                   | SINGLE CHANNEL OBJECTIVE TACTICAL TERMINAL (SCOTT)          |
| 371                   | DISTRIBUTION/ILLUMINATION SET, ELECTRICAL                   |
| 383                   | 15 AND 30 KW NOISE KITS                                     |
| 403                   | UNIT BASIC LOAD-UPLOAD EQUIPMENT                            |
| 411                   | LANDING CRAFT UTILITY (LCU) - 2000 ENGINEERING SUPPORT      |
| 412                   | LOGISTIC SUPPORT VESSEL                                     |
| 413                   | RORO DISCHARGE PLATFORM ENGINEERING SUPPORT                 |
| 414                   | CAUSEWAY (FLOATING) ENGINEERING SUPPORT                     |
| 427                   | 3000 GPH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)    |
| 493                   | PATRIOT 150KW TURBINE GENERATOR SET                         |
| 494                   | WATER PURIFICATION COMPONENTS                               |
| 528                   | STABILIZATION OF SHIP/LIGHTER INTERFACE                     |
| 531                   | TOTAL ENVIRONMENTAL CONTROL SYSTEM                          |
| 606                   | REPAIR OUTFIT FOR THE REPAIR OF COLLAPSIBLE TANKS AND DRUMS |
| 645                   | AUTOMATED PIPELINE EQUIPMENT SYSTEM                         |
| 668                   | PU-617 DIESEL REPLACEMENT                                   |
| 685                   | 20KW REGENCY NET POWER UNIT                                 |
| 714                   | INLINE VEHICLE GENERATOR                                    |
| 718                   | COMMERCIAL GENERATOR SET AND ASSEMBLAGES                    |
| 721                   | SELF DEPLOYABLE MATERIALS HANDLING EQUIPMENT                |
| 722                   | UNIVERSAL SELF-DEPLOYABLE CARGO HANDLER                     |

| <u>PMS<br/>NUMBER</u> | <u>PROGRAM<br/>NAME</u>                                           |
|-----------------------|-------------------------------------------------------------------|
| 727                   | 3 PERSON PNEUMATIC BOAT/ENGINEERING SUPPORT                       |
| 729                   | EXTREME ENVIRONMENT                                               |
| 734                   | SIGNATURE SUPPRESSED DIESEL ENGINE DRIVEN (SSDED) GENERATOR SET   |
| 758                   | ARAPAHO                                                           |
| 793                   | ADVANCED PULSE POWER (HI-POWER MICROWAVE)                         |
| 798                   | FIELD HOSPITAL UNIT SYSTEM                                        |
| 829                   | MODULAR BASE PETROLEUM LABORATORY                                 |
| 830                   | 25 TON ALL TERRAIN CRANE                                          |
| 832                   | HI TECH REVERSE OSMOSIS WATER PURIFICATION UNIT (ROWPU)           |
| 838                   | SMALL TUG - ENGINEERING SUPPORT                                   |
| 839                   | LARGE TUG - ENGINEERING SUPPORT                                   |
| 840                   | CAUSEWAY FERRY ENGINEERING SUPPORT                                |
| 841                   | CANTILEVERED ELEVATED CAUSEWAY (R097)                             |
| 844                   | BOAT, LANDING, INFLATABLE ASSAULT CRAFT (M238)                    |
| 848                   | INTELLIGENT LOAD MANAGEMENT                                       |
| 858                   | 3KW MAN PORTABLE GENERATOR SET                                    |
| 861                   | DIVING AIR CONTROL CONSOLE                                        |
| 882                   | ARMY OIL ANALYSIS MOBILE LABORATORY                               |
| 20791                 | 6K#/6K# FRONT/SIDE LOADER                                         |
| 20792                 | 4K ELECTRIC/PNEUMATIC FORKLIFT                                    |
| 20793                 | FLEX PALLET SYSTEM                                                |
| 20794                 | AUTHORIZED STOCKAGE LIST (ASL) VAN                                |
| 20795                 | UNIVERSAL CRANE SPREADER                                          |
| 20814                 | LCM - 8 SLEP [WATERCRAFT PROD IMPROVE PGM-OMA DIRECT(DISP CRAFT)] |
| 21421                 | 3KW FREE PISTON STIRLING                                          |
| 23621                 | DEPLOYABLE MEDICAL SYSTEM                                         |
| 28061                 | AIR TRANSPORTABLE LIFTING DEVICE - 15K                            |
| 28062                 | AIR TRANSPORTABLE LIFTING DEVICE - 42K                            |

TABLE 3 - The following table contains the schools or proponent agencies and the associated codes used in the database.

| <u>SCHOOL</u>                                         | <u>DATABASE ENTRY</u> |
|-------------------------------------------------------|-----------------------|
| US Army Materiel Command                              | AMC                   |
| US Army Missile and Munitions Center and School       | AMMCS                 |
| US Army Signal Center and School                      | ACS                   |
| US Army Armor Center and School                       | ARMC                  |
| US Aviation Center and Fort Rucker                    | AVNC                  |
| US Army Aviation Logistics and Transportation School  | AVNLOG                |
| US Army Combined Arms Center and Development Activity | CACDA                 |
| Customer                                              | CUSTOMER              |
| US Army Engineer School                               | ENS                   |
| US Army Infantry School                               | IS                    |
| US Army Ordnance Missile Munitions Center and School  | OMMCS                 |
| US Army Quartermaster School                          | QMS                   |
| US Army Tank and Automotive Command                   | TACOM                 |
| US Army Training and Doctrine Command                 | TRADOC                |
| US Army Transportation School                         | TRANS                 |
| US Army Troop Support Command                         | TROSCOM               |
| The Surgeon General                                   | TSG                   |
| US Army Ordnance Center and School                    | ORDCS                 |
| Project Manager - Amphibians & Watercraft             | PM-AWC                |
| Project Manager - Mobile Electric Power               | PM-MEP                |
| Project Manager - Petroleum & Water Logistics         | PM-PWL                |

TABLE 4 - The following table contains program types and the associated entries used in the database.

| <u>PROGRAM TYPE</u>                         | <u>DATABASE ENTRY</u> |
|---------------------------------------------|-----------------------|
| Army Streamlined Acquisition Process        | ASAP                  |
| Contract Support                            | CNTR SUP              |
| Customer                                    | CUSTOMER              |
| Engineering Support                         | ENGR SUP              |
| Military Adaption of a Commercial Item      | MACI                  |
| Nondevelopment Item                         | NDI                   |
| Product Improvement Program                 | PIP                   |
| Production Support                          | PROD SPT              |
| Research, Development, Test, and Evaluation | RDTE                  |
| Technical Data Package Update               | TDP UPD               |
| Technology Base Research                    | TECH BSE              |
| Value Engineering                           | VE                    |

ENCLOSURE 2: STRUCTURE OF THE PROGRAM MANAGEMENT SYSTEM DATABASE

|                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>AMMS-COM</p> <p>This table contains comments concerning the status of AMMS and BELVOIR milestones. Specifically, why milestones have been slipped, missed, or are not applicable.</p>                                                                                                                                                                                                                                                                 |
| <p>AMMS-DAT</p> <p>The table containing the HTPM data for the AMMS and BELVOIR milestones in schedules previously developed by the Project Engineers. At each update the AMMS and BELVOIR milestones will be transferred from the ROADMAPS table. (Page 6)</p> <p>NOTE: The loading procedure will replace the milestones in the AMMS-DAT table which has the same code number and transfer all AMMS and BELVOIR milestones found in ROADMAPS table.</p> |
| <p>PROGRAMS</p> <p>The table containing the background data for the programs within the database. This table may include programs for which there is not a HTPM schedule loaded; therefore this table provides a space holder for programs to be added. (Page 3)</p>                                                                                                                                                                                     |
| <p>ROADMAPS</p> <p>The table containing the schedule data which has been loaded from the HTPM II schedules developed by the Project Engineers. (Page 4)</p>                                                                                                                                                                                                                                                                                              |
| <p>OLDMAPS</p> <p>The table containing the schedule data which was loaded from the HTPM II schedules developed by the Project Engineers during the previous update. (Page 4)</p>                                                                                                                                                                                                                                                                         |
| <p>OLDMAPS2</p> <p>The table containing the schedule data which was loaded from the HTPM II schedules developed by the Project Engineers during the update conducted two periods ago. (Page 4)</p>                                                                                                                                                                                                                                                       |

FIGURE 1. Descriptions of the Data Tables in the Database.

|                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p style="text-align: center;"><b>AMMS</b></p> <p>This table contains is the milestones which comprise the BELVOIR and Army Management Milestone System (BAMMS). These milestones were obtained from Department of the Army Pamphlet 700-26, the list of BELVOIR standard milestones, and additional milestones required by the Logistics Equipment Directorate.</p> |
| <p style="text-align: center;"><b>CODING</b></p> <p>This table is used by the PMD query application when the user chooses to search the database for tasks and milestones which have a particular milestone code.</p>                                                                                                                                                |
| <p style="text-align: center;"><b>FORMS</b></p> <p>This table contains the data entry and editing forms used by the database.</p>                                                                                                                                                                                                                                    |
| <p style="text-align: center;"><b>ORPHANS</b></p> <p>This table contains the names of the files within the HTPM ASCII data file directory which are not associated with any programs within the database. (Page 7)</p>                                                                                                                                               |
| <p style="text-align: center;"><b>PMDS2</b></p> <p>This table is used by the Program Management Data Sheet (PMDS) report facility. This table, when loaded by the PMDS report facility application, comprises the data required for the second page of the report.</p>                                                                                               |
| <p style="text-align: center;"><b>PMDS-CAT</b></p> <p>This table is used by the PMDS report facility application. The application uses this table when sorting the tasks and milestones by categories of the PMDS.</p>                                                                                                                                               |
| <p style="text-align: center;"><b>REPORTS</b></p> <p>This table contains all of the output reports used by the database.</p>                                                                                                                                                                                                                                         |
| <p><b>NOTE:</b> The above tables are only to be modified by the database administrator or persons instructed to by the database administrator. Improper alteration of these tables can result in invalidating the PMD application.</p>                                                                                                                               |

FIGURE 2. Description of the Tables Required for Operating PMD.

| TABLE: PROGRAMS |          |          |                                                                |
|-----------------|----------|----------|----------------------------------------------------------------|
| COLUMN NUMBER   | NAME     | TYPE     | DESCRIPTION                                                    |
| 1               | ITEM     | TEXT     | The name of the program.                                       |
| 2               | ACRONYM  | TEXT     | The program acronym.                                           |
| 3               | PMS#     | INTEGER  | The unique program identification number.                      |
| 4               | PE       | TEXT     | The name of the Project Engineer.                              |
| 5               | PE.PHONE | INTEGER  | The Project Engineer's office phone number.                    |
| 6               | OFF.SYM  | TEXT     | The office symbol of the Project Engineer.                     |
| 7               | TC       | TEXT     | The name of the Team Chief.                                    |
| 8               | TC-PHONE | INTEGER  | The Team Chief's office phone number.                          |
| 9               | DC       | TEXT     | The name of the Division Chief.                                |
| 10              | DC-PHONE | INTEGER  | The Division Chief's office phone number.                      |
| 11              | REPORT   | TEXT     | Is the schedule an updated or new program?                     |
| 12              | SCHOOL   | TEXT     | The proponent school.                                          |
| 13              | TYPEPROG | TEXT     | The type of program (i.e., RDTE, NDI).                         |
| 14              | FNDLEVEL | CURRENCY | The level of funding for this project during this fiscal year. |
| 15              | TYPEFUND | TEXT     | The type of funding (i.e., CUSTOMER, OMA)                      |
| 16              | DESCRIPT | TEXT     | A brief description of the program.                            |
| 17              | MEMO     | TEXT     | Notes about this program.                                      |
| 18              | MS-CHRT  | TEXT     | Is there a milestone chart, [Y]es or [N]o?                     |
| 19              | UPDATED  | DATE     | The date when the milestone chart was last updated.            |
| 20              | IN-DB    | TEXT     | Is this milestone chart in the database, [Y]es or [N]o?        |
| 21              | SCRATCH  | TEXT     | A scratch field used during queries as a flag.                 |
| 22              | DIVISION | TEXT     | The program's division office symbol.                          |

FIGURE 3. The Structure of the Table PROGRAMS.

| TABLE: ROADMAPS<br>OLDMAPS<br>OLDMAPS2 |          |         |                                                                                                           |
|----------------------------------------|----------|---------|-----------------------------------------------------------------------------------------------------------|
| COLUMN<br>NUMBER                       | NAME     | TYPE    | DESCRIPTION                                                                                               |
| 1                                      | PMS#     | INTEGER | The program identification number.                                                                        |
| 2                                      | TASKNAME | TEXT    | The name of the node from the schedule.                                                                   |
| 3                                      | DESCRIBE | TEXT    | Description field from the node in the schedule.                                                          |
| 4                                      | START    | DATE    | The computer generated start of this task.                                                                |
| 5                                      | FINISH   | DATE    | The computer generated finish of this task.                                                               |
| 6                                      | PLAN-ST  | DATE    | The date that the Project Engineer plans to start this task.                                              |
| 7                                      | PLAN-FN  | DATE    | The date that this task will be completed based upon the planned start date and the planned duration.     |
| 8                                      | PLAN-DUR | REAL    | The planned duration of the task in work days.                                                            |
| 9                                      | ACT-ST   | DATE    | The actual start date of the task, if the task is being performed.                                        |
| 10                                     | ACT-FN   | DATE    | The actual finish date of the task, if the task has been completed.                                       |
| 11                                     | ACT-DUR  | REAL    | The actual number of days it took to complete this task.                                                  |
| 12                                     | EARLY-ST | DATE    | The earliest date that this task can begin.                                                               |
| 13                                     | EARLY-FN | DATE    | The earliest date that this task can be completed.                                                        |
| 14                                     | LATE-ST  | DATE    | The latest date that this task can begin.                                                                 |
| 15                                     | LATE-FN  | DATE    | This is the latest that this task can be completed and maintain the schedule.                             |
| 16                                     | EARLY-CN | DATE    | This is inserted by the Project Engineer as the early-constraint.                                         |
| 17                                     | LATE-CN  | DATE    | This is inserted by the Project Engineer as the late-constraint.                                          |
| 18                                     | COMPLETE | REAL    | The completion percentage.                                                                                |
| 19                                     | SLACK    | REAL    | The number of days available before the task becomes critical. (Tasks on the critical path have 0 slack.) |
| 20                                     | CODE-FLD | TEXT    | Project Engineer's personalized code for the particular task.                                             |

FIGURE 4. The Structure of the Tables ROADMAPS, OLDMAPS, and OLDMAPS2 (CONTINUED).

| TABLE: ROADMAPS (CONTINUED)<br>OLDMAPS<br>OLDMAPS2 |          |      |                                                                       |
|----------------------------------------------------|----------|------|-----------------------------------------------------------------------|
| COLUMN<br>NUMBER                                   | NAME     | TYPE | DESCRIPTION                                                           |
| 21                                                 | RESPONSI | TEXT | The organization/person responsible for the completion of the task.   |
| 22                                                 | SCHEDULE | TEXT | The name of the HTPM project schedule that this task belongs.         |
| 23                                                 | CODE#    | TEXT | The code used for the R:Base queries.                                 |
| 24                                                 | AMMS     | TEXT | The code associated with the task or milestone (i.e., AMMS, BELVOIR)? |
| 25                                                 | SCRATCH  | TEXT | A scratch field used during queries as a flag.                        |
| 26                                                 | SCRATCH2 | TEXT | A scratch field used during queries as a flag.                        |
| 27                                                 | X        | REAL | A scratch field used during queries as a computation field.           |
| 28                                                 | Y        | REAL | A scratch field used during queries as a computation field.           |
| 29                                                 | Z        | REAL | A scratch field used during queries as a computation field.           |

FIGURE 4. The Structure of the Tables ROADMAPS, OLDMAPS, and OLDMAPS2 (CONTINUED).

| TABLE: AMMS-DAT |          |         |                                                                                                           |
|-----------------|----------|---------|-----------------------------------------------------------------------------------------------------------|
| COLUMN NUMBER   | NAME     | TYPE    | DESCRIPTION                                                                                               |
| 1               | TASKNAME | TEXT    | The name of the node from the schedule.                                                                   |
| 2               | DESCRIBE | TEXT    | Description field from the node in the schedule.                                                          |
| 3               | EARLY-ST | DATE    | The earliest date that this task can begin.                                                               |
| 4               | EARLY-FN | DATE    | The earliest date that this task can be completed.                                                        |
| 5               | LATE-ST  | DATE    | The latest date that this task can begin.                                                                 |
| 6               | LATE-FN  | DATE    | This is the latest that this task can be completed and maintain the schedule.                             |
| 7               | PLAN-ST  | DATE    | The date that the Project Engineer plans to start this task.                                              |
| 8               | PLAN-FN  | DATE    | The date that this task will be completed based upon the planned start date and the planned duration.     |
| 9               | SLACK    | REAL    | The number of days available before the task becomes critical. (Tasks on the critical path have 0 slack.) |
| 10              | COMPLETE | REAL    | The completion percentage.                                                                                |
| 11              | AMMS     | TEXT    | The code associated with the task or milestone (i.e., AMMS, BELVOIR)                                      |
| 12              | CODE-FLD | TEXT    | Project Engineer's personalized code for the particular task.                                             |
| 13              | RESPONSI | TEXT    | The organization/person responsible for the completion of the task.                                       |
| 14              | SCHEDULE | TEXT    | The name of the HTPM project schedule that this task belongs.                                             |
| 15              | PMS#     | INTEGER | The program identification number.                                                                        |
| 16              | SCRATCH  | TEXT    | A scratch field used during queries as a flag.                                                            |
| 17              | CODE#    | TEXT    | This is the code used for R:Base queries.                                                                 |

FIGURE 5. The Structure of the Table AMMS-DAT.

| TABLE ORPHANS    |          |         |                                                                                                                                                                                |
|------------------|----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COLUMN<br>NUMBER | NAME     | TYPE    | DESCRIPTION                                                                                                                                                                    |
| 1                | FILENAME | TEXT    | The name of the HTPM ASCII files found in the HTPM ASCII data directory, for which either the project has not been entered into the database or the file had an improper name. |
| 2                | PMS#     | INTEGER | This field is the program identification number and has been left open for the database operator's use.                                                                        |

FIGURE 6. The Structure of the Table ORPHANS.

ENCLOSURE 3: E X A M P L E S O F A B A T C H F I L E T O R U N F R O M M S - D O S

A BATCH FILE WHICH WILL INITIATE PROGRAM MANAGEMENT SYSTEM DATABASE QUERY AND REPORTING SYSTEM

```
REM *****
REM This is a SPECIAL example batch file for running PMD.  This batch
REM file calls R:BASE System V and initiates operation of the
REM application PMD.  SAIC, 13-JUN-88
REM *****
REM 1.  The REM statements are comments for the person editing this
REM      batch file and not actual MS-DOS commands.
REM
REM 2.  In the following lines [drive1:] and [path1:] refer to the drive
REM      and path where the R:BASE files are located and [drive2:] and
REM      [path2:] refers to the drive and path where data base is
REM      located.
REM
REM 3.  To tailor this batch file to your system, replace the [drive:]
REM      and [\path\] which those associated with your system.
REM *****
REM
REM {If RBFILS is not the correct name of the directory where your
REM R:BASE system is located, then enter the correct directory.
REM EXAMPLE:  C:\DATABASE\RBFILS or C:\RBASE}
CD [drive1:][\path1\RBFILS
[drive2:]
CD [drive2:]\MS
PATH [drive1:][\path1\RBFILS
[drive1:][\path1\RBFILS\RBASE -P PMD
REM The following line returns the path to the MS-DOS directory
REM on your hard disk.
[drive:][\path\MS-DOS
```

#### ENCLOSURE 4: CREATING THE HARVARD TOTAL PROJECT MANAGER ASCII DATA FILES

1. Start Harvard Total Project Manager II (HTPM II) in the usual method. The main menu screen will appear as follows:

| HARVARD<br>Total Project Manager II |                    |
|-------------------------------------|--------------------|
| >1. Create a project                | 5. Get/Save/Remove |
| 2. Edit a project                   | 6. Resources       |
| 3. Create a calendar                | 7. Reports         |
| 4. Edit a calendar                  | 8. Setup           |
| E = Exit                            |                    |

FIGURE 1. Main Menu Screen.

Choose option 5, "Get/Save/Remove", to get your project. (Some familiarity with HTPM II is assumed.)

2. Return to the main menu and choose option 7, Reports.
3. The Reports menu screen will now appear. Using the arrow pad on your keyboard, move down the Text Reports column to the "Task & Milestone List". At this point, hit function key F2, Options.
4. A pull down menu will appear with two options:
  1. Run report
  2. Format report

Choose option 2, "Format report". The "Order columns for Task & Milestone List" screen will appear. The order of the fields in the ASCII file is critical; the ordering ensures that the correct field is loaded in the correct column in the data base. The proper ordering is listed below in Figure 2:

- |                     |                      |
|---------------------|----------------------|
| 1. Description      | 11. Earliest finish  |
| 2. Start date       | 12. Latest start     |
| 3. Finish date      | 13. Latest finish    |
| 4. Planned start    | 14. Early constraint |
| 5. Planned finish   | 15. Late constraint  |
| 6. Planned duration | 16. % Complete       |
| 7. Actual start     | 17. Slack            |
| 8. Actual finish    | 18. Code             |
| 9. Actual duration  | 19. Responsible      |
| 10. Earliest start  | 20. Project Name     |

FIGURE 2. Field Ordering.

To enter the proper field order number, move your cursor, using the arrow pad, to the field you want to change and type in the number. Be sure to check that the order is correct and that there are no duplicate entries. An example of the screen is provided below in Figure 3.

F1-Help Options

| Order columns for Task & Milestone List |                     |                    |
|-----------------------------------------|---------------------|--------------------|
| 1 Description                           | Baseline duration   | Pln resource cost  |
| 2 Start date                            | Baseline work       | Pln other cost     |
| 3 Finish date                           | 10 Earliest start   | Pln total cost     |
| 4 Planned start                         | 11 Earliest finish  | Act resource cost  |
| 5 Planned finish                        | 12 Latest start     | Act other cost     |
| 6 Planned duration                      | 13 Latest finish    | Act total cost     |
| Planned work                            | 14 Early constraint | Prj resource cost  |
| 7 Actual start                          | 15 Late constraint  | Prj other cost     |
| 8 Actual finish                         | 16 % Complete       | Prj total cost     |
| 9 Actual duration                       | 17 Slack            | Base resource cost |
| Actual work                             | 18 Code             | Base other cost    |
| Baseline start                          | 19 Responsible      | Base total cost    |
| Baseline finish                         | 20 Project name     |                    |
| Esc-Cancel                              |                     | F10-Confirm        |

Reports

FIGURE 3. Order Columns for Task and Milestone List.

When all changes have been completed, hit function key F10, "Confirm".

The next screen to appear will ask for the configuration of the output data. It will not be necessary to edit these screens. Press F10 until you are returned to Reports main screen (hit F10 twice).

5. Press function key F2. The pull down menu described in step 4 will appear. Choose option 1, "Run report". The "Text report options" block will appear on the screen. Three options will be entered: "Filename", "Print to", and "Pause between pages". For "Filename", enter the PMS number of your project; for "Print to", use the arrow keys to toggle the shading to "Disk File"; and, for "Pause between pages", use the arrow keys to toggle the shading to "No". Now enter F10, "Confirm". See Figure 4.

HTPM will now ask what type of a file to output, "Choose file type". Using your arrow pad, move your cursor to the final option "Delimited ASCII" and press F10. See Figure 5.

F1-Help      Options

| Text reports                 | Graphic reports |
|------------------------------|-----------------|
| Text report options          |                 |
| Header:                      |                 |
| Footer:                      |                 |
| Filename: 999                |                 |
| Print to: Printer            | Disk file       |
| Control codes:               |                 |
| Pause between pages: Yes >No |                 |
| Esc-Cancel                   | F10-Confirm     |

Reports

FIGURE 4. Test Report Options.

| Text report                  | Choose file type            |
|------------------------------|-----------------------------|
| Header:                      | Print file                  |
| Footer:                      | Lotus 1-2-3 file Ver 1A     |
| Filename:9                   | Lotus 1-2-3 file Ver 2      |
| Print to:                    | dBASE II                    |
| Control codes:               | dBASE III                   |
|                              | >Delimited ASCII            |
|                              | Esc-Cancel      F10-Confirm |
| Pause between pages: Yes >No |                             |
| Esc-Cancel                   | F10-Confirm                 |

Reports

FIGURE 5. Choose File Type.

- HTPM will inform you that it is preparing the data and writing it to the disk file. When this is complete, you will be returned to the Report's main screen. At this point, hit <Esc> to move you back to the HTPM main menu. Now you can exit: however, if you made any changes to the schedule you should save it, then exit. To exit from the HTPM main menu, enter "E".

END

DATE

9-88

DTIC