



DATABASE MANAGEMENT SYSTEM

User's Manual

OUR GOAL IS AUTOMATION EXCELLENCE

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PROMPT DATABASE MANAGEMENT SYSTEM USER'S MANUAL

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INTRODUCTION

The PROMPT Database Management System consists of four separate elements each of which is explained below and on the following pages.

- PROMPT Data Language (PDL)
- PROMPT Database Manager
- PROMPT Database Facilities
- PROMPT Job Control Language (PJL)

PROMPT DATA LANGUAGE (PDL)

PDL is a programming language whose instruction set has been implemented as an extension of IBM's Event Driven Language (EDL).

Essentially, PDL changes EDL to a high-level language that is data sensitive, has very powerful math and screen manipulation routines, and includes instructions to manipulate the PROMPT Balanced-Tree Access Method.

PDL allows data attributes to be stored in the database external to the program, rather than embedded within the program. If the format, size, precision, or location of data is altered, no program maintenance is required - which can significantly reduce program maintenance cost.

PROMPT DATABASE MANAGER

The Database Manager is the execution portion of the PROMPT System. The PROMPT Balanced-Tree Access Method optimizes I/O operations through the use of cache and least-recently-used buffer management algorithms.

A checkpoint/restart feature preserves database integrity, eliminating broken chains and file verification error listings. PROMPT database files never require reorganization, as the file sizes adjust dynamically, never occupy more disk than necessary, and never become full.

Multi-volume and multi-device database support provides a graceful growth path by simply adding one or more additional devices when needed, and defining the new dataset and volume to the database, without any unloading and reloading of the database.

PROMPT DATABASE FACILITIES

The database facilities are used to obtain information from or modify non-file key data in the PROMPT Database, without writing a computer program. The user needs no programming experience to use these facilities.

PROMPT JOB CONTROL LANGUAGE (PJL)

The Job Control Language is used to manage memory, provide security, define the sequence in which programs will execute and the data files the program will use. Programs can run, either interactively, or in a batch mode and can run in foreground or background. Program priorities can be established within the job stream definition. Features such as menu processing, symbolic substitution, and job logging are part of the Job Control Language.

PJL provides terminal management security in multiple levels by terminal and user identification. The job stream processor improves memory utilization by dynamically assigning partitioned memory areas to the terminals as needed. Multiple levels of file directories are used to make sure that a user can only get to the data authorized for access.

PROGRAMMER vs. PROGRAMMER-LESS FACILITIES**Programmer Facilities**

PROMPT Data Language (PDL), is for use by a programmer. It is used to develop programs for an application such as accounts receivable, order processing, inventory control, etc.

Programmer-less Facilities

The PROMPT Database Management System includes a number of facilities for use by non-programming personnel.

The purpose of these facilities is to enable a user to get at data and modify job setups without writing any computer programs whatsoever.

This user's manual explains these programmer-less facilities.

The PROMPT Screen

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          PROMPT Database Management System          P>JLCP:: +
|                                                           | #PROMPT |
|                                                           |         |
|   FF - File/Field Definition          FG - File Flag        |         |
+   SI - Screen/Menu Image             FS - File Sequencer    +         |
|   SD - Standard Definitions          FMx - File Migration (x=S,R) |         |
|   FE - File Create/Empty             AI - Alternate Indexer   |         |
|   RWx - Report Writer (x=E,R)        DC - Date Conversion    |         |
|   FR - Field Report                  DU - Database Utilities  |         |
+   FY - Field Copy                    PM - Parmfile Manager    +         |
|   ES - Extract, Sort/Merge           PC - Printer Control File |         |
|   FC - File Conversion                JLx - Job Language (x=S,M,P) |         |
|   CC - Case Conversion                UTL - Display Utilities Menu |         |
|   FP - File Purge                    BKU - Display Backup/Unlock Menu |         |
+                                       PDT - PROMPT Data Tools    +         |
|                                                           |         |
|                                                           |         |
|                               Enter Option:                    |         |
|                                                           |         |
|   'PROMPT' is the registered trademark of Mid-American Control Corporation +
|                                                           |
|                                                           |
|                                                           |
+ F0=Accept Option                                     F7=Exit Screen +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The purpose of screen #PROMPT is to select the desired program or sub menu.

Each of the options shown on the PROMPT menu is now explained.

FF - File/Field Definition

The PROMPT File/Field Definition maintenance program allows the user to create and modify the file/field definitions for the files in the database.

NOTE: ASSUMING YOU ARE USING AN APPLICATION SYSTEM SUCH AS PROMPT BUSINESS SYSTEM, BE AWARE THAT CHANGING AN FFD COULD ADVERSELY AFFECT YOUR SYSTEM OPERATIONS.

IN OTHER WORDS, DO NOT CHANGE AN FFD UNTIL YOU UNDERSTAND HOW IT AFFECTS YOUR APPLICATION. MORE INFORMATION IS PROVIDED ABOUT THIS ON THE NEXT PAGE.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBFFD  +
|                   PROMPT Database Management System V3.0    #PDBFFD0 |
|                   File/Field Definition Maintenance         |
|                   Options available:                        |
+                   |                                         +
|                   A - Add a new FFD to the database        |
|                   B - Browse through an FFD                (Same as F0) |
|                   C - Change an FFD                        |
|                   D - Delete an FFD                        |
+                   P - Print an FFD on (          )          +
|                   X - Exit program                          (Same as F7) |
|                   |                                         |
|                   |                                         |
+                   |                                         +
|                   |                                         |
|                   Enter option:                               |
|                   |                                         |
+                   |                                         +
|                   |                                         |
| F0=Accept Input   F1=          F2=          F3=          |
+ F4=          F5=          F6=Function Key   F7=Exit Screen  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The user enters one of the following options.

Add a new FFD (A) - This section is used when a new FFD is being defined in the database.

Browse (B) - The browse option will display the field definitions and indexes defined in an FFD, but will not allow the user to change any information in the FFD.

Change an FFD (C) - This option will allow the user to change the information contained in an FFD. The changes made can be stored in the original FFD or a new FFD can be created.

Delete an FFD (D) - This option is selected when an FFD is to be deleted from the database.

Print an FFD (P) - The 'P' option will print a listing of an FFD on the device whose name is entered in the space provided.

Exit Program (X) - This selection terminates the program.

MORE ABOUT FFD'S, SDNAMES and file naming conventions

All PROMPT Business System FFD'S are found in the respective directories with their associated data and alternate index files. For example BSAR.ARCUSFLE.FFD is the file/field definition (FFD) for the customer master file. The file named BSAR.ARCUSFLE.DATA holds the actual customer master file data and BSAR.ARCUSFLE.X001 through X007 are the alternate indexes. Basically an alternate index allows processing data in the file in a sequence different from the primary index (Index 0).

Later in this manual you will discover the standard definition name editor (SDNAME). This is a short name version of each data file. For example ARCUSFLE is the SDNAME for the customer master file. The primary purpose of the SDNAME is for use in defining a file set (the ffd and associated data file) to a PROMPT utility such as File Flagger, etc.

Finally this may be obvious, but the first 4 characters of each long file name such as BSAR represents the subsystem name, the next 8 characters is the SDNAME, and the suffix is the function such as File Field definition (FFD), Data file (DATA), or Alternate Index (X001, etc)

Entering the Input and Output FFD File Names

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05           Mid-American Control Corporation           #PDBFFD +
|                   PROMPT Database Management System V3.0     #PDBFFD2 |
| Option:           File/Field Definition Maintenance          |
|                   |                                         |
|   The input FFD file is: ( BSAR.ARCUSFLE.FFD )              |
+                   |                                         +
|   The input directory path is:                               |
|   ( BSAR.DIRECTORY                                         ) |
|   (                                                         ) |
|   (                                                         ) |
+   (                                                         ) +
|                   |                                         |
|   The output FFD file is: ( *                               ) |
|                   |                                         |
|   The output directory path is:                              |
+   ( *                                                         ) +
|   (                                                         ) |
|   (                                                         ) |
|   (                                                         ) |
+                   |                                         +
| Note: If output FFD or directory matches input, you may enter * or ". |
|                   |                                         |
| F0=Accept Input   F1=           F2=           F3=           |
+ F4=           F5=           F6=Function Key   F7=Cancel Option +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The name of the option selected is displayed in the space provided. If the 'BROWSE', 'DELETE' or 'PRINT' options are selected, the user must specify the name of the input FFD file and its directory. If the 'ADD' option is selected, only the output FFD file name and directory are required. When the 'CHANGE' option is selected, both the input and output names are the same, the user may enter either * or " in place of the output file FFD and the directory. When an input FFD file is specified and after all file names have been accepted, the following message will be displayed on the message line:

COPYING INPUT FFD FILE INTO WORK FILE.

If the 'DELETE' option was selected and the input FFD file name and directory were valid, the FFD will be deleted and the user will return to the option menu. If the user selected the 'PRINT' option, the following message would be displayed:

PRINTING IN PROGRESS...

After the FFD is printed the option menu will be displayed.

The FFD Section Menu

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDBFFD  +
|                   PROMPT Database Management System V3.0    #PDBFFD3 |
| Option:          File/Field Definition Maintenance         |
|                   |                                         |
|                   FFD Section Menu:                        +
|                   |                                         |
|                   F - Field Definition Table                |
|                   I - Index Definition                      |
|                   P - Print FFD on (          )              |
|                   S - Save Workfile to                      (Same as F4) +
|                   X - Exit Without Saving Changes           (Same as F7) |
|                   |                                         |
|                   Enter Section:                            |
|                   |                                         |
|                   |                                         |
|                   |                                         |
|                   |                                         |
| Note:  If F7 is pressed, the workfile will not be written to the FFD.
|                   |                                         |
| F0=Accept Input   F1=          F2=          F3=          |
+ F4=Save Changes   F5=          F6=Function Key  F7=Cancel Changes +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The user enters the section to be performed or uses a function key to determine the next action to be taken by the program.

Field Definition Table (F) - Selecting the field definition table will cause the program to display the Field Definition Screen. On this screen the user will view and/or enter the information for each field in the data file.

Index Definition (I) - The index definition option generates a screen upon which the user may view and/or change the indices defined for the data file.

Print FFD (P) - This section will print the FFD contained in the workfile. The name of the device to receive the report is displayed in the space provided and may be changed by the user.

Save Workfile to Output (S) - The user selects this option to save the changes that were made to the workfile in the output FFD.

Exit Without Saving Changes (X) - This option will cause the program to display a warning message:

WARNING, CHANGES WILL NOT BE SAVED, PRESS F0 TO CONTINUE OR F7
TO RESPECIFY

If F0 is pressed, the program will exit and all changes will be lost.
If F7 is pressed, the user will be given the opportunity to respecify
this selection.

Changing an Existing FFD

When the field definition screen is selected for an FFD that is being modified, the screen is displayed as follows:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05                Mid-American Control Corporation                #PDBFFD +
|                          PROMPT Database Management System V3.0        #PDBFFD5 |
| Option:  CHANGE          File/Field Definition Maintenance    Scroll:( HALF ) |
| BSAR.ARCUSFLE.FFD                      Recsize: 348          |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+|Fld #|C/N|LEN|DEC| FLD NAME | FIELD DESCRIPTION | FIX? | RDEF?| OFFSET |+
|| 0001| N | 4| 0 | RMCUSTM# | CUSTOMER NUMBER | Y | | 0 ||
|| 0002| C | 30| 0 | RNNAME | CUSTOMER NAME | N | | 4 ||
|| 0003| C | 30| 0 | RMADDR1 | ADDRESS 1 | N | | 34 ||
|| 0004| C | 30| 0 | RMADDR2 | ADDRESS 2 | N | | 64 ||
+|| 0005| C | 15| 0 | RMCITY | CITY | N | | 94 |+
|| 0006| C | 2| 0 | RMSTATE | STATE | N | | 109 ||
|| 0007| C | 10| 0 | RMZIP | ZIP | N | | 111 ||
|| 0008| C | 12| 0 | RMTELE# | BUSINESS TELEPHONE # | N | | 121 ||
|| 0009| C | 13| 0 | RMALTKEY | ALT KEY NAME/ADDR/ZIP | N | | 133 ||
+|| 0010| C | 2| 0 | RMSHPVIA | SHIP VIA CODE | N | | 146 |+
|| 0011| C | 1| 0 | RMBILCOD | CUSTOMER CODE | N | | 148 ||
|| 0012| N | 4| 0 | RMBILLTO | BILL TO NUMBER | Y | | 149 ||
|| 0013| N | 1| 0 | RMTERMS | TERMS CODE | Y | | 153 ||
|| 0014| C | 1| 0 | RMSTATUS | STATUS | Y | | 154 ||
+| ****| | | | | | | | | | | | |
|
|
|
| F0=Accept Input      F1=Redisplay      F2=Scroll Up      F3=Scroll Down |
+ F4=Insert Before    F5=Delete      F6=Function Key 0  F7=Exit Section +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
    
```

New fields can be entered, existing fields may be changed by typing the new value over the displayed value, and fields may be deleted by positioning the cursor on the field number and pressing the F5 key.

Index Definition Screen

Selecting section I from the FFD section menu produces the index definition screen where the primary and alternate indexes for the file are defined. The fields that compose the primary index must be defined before the FFD can be saved.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBFFD +
|                   PROMPT Database Management System V3.0   #PDBFFD4 |
| Option:  CHANGE   File/Field Definition Maintenance       |
|                                                           |
|                   -- Index Definition --                  |
+                                                           +
|       Index ID:    ( 0 )                                   |
|                   *Fld Name*      *Field Description*    |
|       Key Field 1 - ( 1 ) RMCUSTM# -  CUSTOMER NUMBER    |
|       Key Field 2 - (   )           -                    |
+       Key Field 3 - (   )           -                    +
|       Key Field 4 - (   )           -                    |
|       Key Field 5 - (   )           -                    |
|                                                           |
|       Minimum Record Size: 348      Total Indexes Defined: 9
+       Key Length:                   4                    +
|                                                           |
|       Note:  The primary key is automatically appended
|               to the end of each alternate index record.
|                                                           |
+                                                           +
|                                                           |
| F0=Accept Input   F1=Redisplay      F2=Scroll Backward   F3=Scroll Forward |
+ F4=Change Index   F5=Delete Index    F6=Function Key 0    F7=Exit Section  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Each index is displayed one at a time using the F2 and F3 function keys to determine the direction of the display. When the screen is first displayed, no indexes are shown. Pressing the F3 function key will display the first index defined if one exists. The user may also enter an index number before pressing the F3 or F2 key and cause the program to display the first index greater than or equal to the index number specified (if F3 is entered), or the first index less than or equal to the number specified (if F2 is entered). As each index is displayed, the field numbers, names and descriptions of the fields that are part of the key are shown along with the minimum record size, the length of the key being displayed, and the total number of indexes defined.

SI - Screen/Menu Image

The PROMPT Image Editor allows the user to create and modify screen image files.

NOTE: ASSUMING YOU ARE USING AN APPLICATION SYSTEM SUCH AS PROMPT BUSINESS SYSTEM, BE AWARE THAT CHANGING A SCREEN/MENU COULD ADVERSELY AFFECT HOW YOUR SYSTEM OPERATES.

IN OTHER WORDS, DO NOT CHANGE A SCREEN/MENU UNTIL YOU UNDERSTAND HOW IT AFFECTS YOUR APPLICATION.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBIMG +
|                  PROMPT Database Management System V3.0    #PDBIMG0 |
|                  Screen Image Editor                      |
+-----+-----+-----+-----+-----+-----+-----+-----+
||                               Filename:      Default Volume:|   Default   ||
+| READ Filename.....:(          ) PDBLIB      |   Volume   |+
|| SAVE Filename.....:(          ) PDBLIB      | will be used ||
|| Current Image Name:          | when no volume ||
|| Printer.....: $SYSPRTR      | is specified  ||
+-----+-----+-----+-----+-----+-----+-----+
+|                               Attributes          Screen Size: 24 x 80  |+
|| Unprotected Field Character...: '-'   Protected Field Character: '@'   ||
|| Normal Intensity Character...: '>'   High Intensity Character.: ' '   ||
|| Blinking Character.....: ' '   Blanking Character.....: ' '   ||
+-----+-----+-----+-----+-----+-----+-----+
++ F0 and F2 put you in the |           When EDITing:           ++
|| @DISPLAY mode, then use F1 | F0: @DISPLAY mode       F3: Center line   ||
|| to begin EDITing or F3 to | F1: YANK this line     F4: Open line    ||
|| return to this screen.   | F2: PUT YANKed line    F5: Delete line  ||
+-----+-----+-----+-----+-----+-----+-----+
+
|
|
|
| F0=EDIT Image      F1=READ Image      F2=READ/EDIT Image F3=NEW Image   |
+ F4=SAVE Image      F5=PRINT Image      F6=Function Key   F7=End Program  +
+-----+-----+-----+-----+-----+-----+-----+

```

Screen Fields**Filenames:**

The user supplies filenames for READING and SAVEing in the fields marked "READ Filename" and "SAVE Filename", respectively. The filenames should be of the form "filename/volume" or simply "filename". In the latter case (when no volume is specified) the volume listed under "Default Volume:" will be used. The default volume is initially the volume that the program was loaded from, changing to the last volume accessed after any READs or SAVEs. The last filename and volume accessed by READs or SAVEs is shown as "Current Image Name:". This name becomes the default for READs and SAVEs when no filename is specified.

Printer:

The printer is shown in the field marked "Printer", and always defaults to the loading terminal's hardcopy device. If another printer is desired, simply enter it in place of the default.

Attributes:

There are six fields on the screen under the heading "Attributes". The characters entered there will be used to define attributes when editing. For example, enter " " (the default for highlighting) on the edit screen will cause all of the screen following the " " to be highlighted on an @DISPLAY. Four rules to apply when choosing the characters to use as Attribute Characters are:

1. Neither the unprotected field character nor the protected field character may be " " (space or "disabled").
2. Any other attribute characters may be disabled by entering " " (space), provided that the image presently in the workspace does not contain that particular attribute.
3. No two attribute characters may be the same.
4. Do not use as an attribute character any character that might naturally occur in the text on the screen you are going to EDIT. Changing an attribute character while an image is in the workspace should be done with caution.

SD - Standard Definitions

The PROMPT Standard Definition file maintenance program is used to create and modify the standard definition names that describe PROMPT data files.

NOTE: ASSUMING YOU ARE USING AN APPLICATION SYSTEM SUCH AS PROMPT BUSINESS SYSTEM, BE AWARE THAT CHANGING A SDNAME COULD ADVERSELY AFFECT HOW YOUR SYSTEM OPERATES.

IN OTHER WORDS, DO NOT CHANGE A SDNAME UNTIL YOU UNDERSTAND HOW IT AFFECTS YOUR APPLICATION.

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBSDN  +
|                   PROMPT Database Management System V3.0    #PDBSND0 |
|                   Standard Definition File Maintenance      |
|                   Options available:                          |
+                   |                                           |
|                   A - Add an SDNAME entry                    |
|                   B - Browse the SDNAME file                (Same as F0) |
|                   C - Change an SDNAME entry                |
|                   D - Delete an SDNAME entry                |
+                   P - Print an SDNAME entry on (           )  +
|                   R - Respecify SDNAME directory path        |
|                   X - Exit program                            (Same as F7) |
|                   Enter option: (       )                    |
+                   Enter SDNAME: (           )                +
|                   |                                           |
|                   |                                           |
|                   |                                           |
+                   |                                           |
|                   |                                           |
|                   |                                           |
|                   |                                           |
+                   |                                           |
|                   F0=Accept Input      F1=          F2=          F3=          |
+                   F4=          F5=          F6=Function Key  F7=Exit Program  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

Each available option is described below:

Add an SDNAME entry (A) - This option is selected when a new standard definition is being defined.

Browse the SDNAME file (B) - The browse option will display each standard definition contained in the current directory.

Change an SDNAME entry (C) - This option allows the user to view and modify an existing standard definition. The name of the standard definition to be changed is entered in the space provided.

Delete an SDNAME entry (D) - This option is selected when an SDNAME entry is to be deleted from the file. The name of the standard definition to delete is entered in the space provided.

Print an SDNAME entry (P) - The print option lists the specified SDNAME entry on the device whose name is entered in the space provided. The device name displayed as part of the print option is the hardcopy device assigned to the terminal in the sysgen. If the terminal does not have a print device assigned to it, the program will display \$SYSPRTR as the hardcopy device. If the hardcopy device name is altered by the user, the new device will be displayed on subsequent screens until a new device is selected.

Respecify SDNAME directory path (R) - The program assumes that the SDNAME file resides in the main directory. If this is not the case, option 'R' may be chosen to change the directory path.

Exit Program (X)

FE - File Create/Empty

Note warning below about erasing all data in a file

```

+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDFCRT +
|                   PROMPT Database Management System V3.0    #PDFCRT0 |
|                   File Creation/Empty Facility              |
|                                                             |
|                   Replace                                    |
+   Data File       if                                         +
|   SDNAME         Busy          Results                       |
+-----+-----+-----+-----+-----+-----+-----+
|  1 (MYWRKFLE) | (   Y   ) |                               |
|  2 (           ) | (           ) |                               |
+  3 (           ) | (           ) |                               +
|-----+-----+-----+-----+-----+-----+
|
+ Each file identified by the three SDNAMES above will be created or recreated+
| in turn as an empty file.  If the file already exists and appears to be in |
| use by another program and the "Replace If Busy" field is not "Y", then   |
| processing will stop at that file.  If "Replace If Busy" is "Y", then the |
| file will be emptied - all records will be deleted, even if locked - and  |
+ the file is closed.
|-----+-----+-----+-----+-----+-----+-----+
| PRESS F0 TO BEGIN FILE CREATION, F7 TO END
|
| F0=Accept Input      F1=          F2=          F3=
+ F4=          F5=          F6=          F7=Exit Screen  +
+-----+-----+-----+-----+-----+-----+-----+

```

Selection of the option (CF) on the PROMPT screen will cause a screen like the example above to appear.

A PROMPT Database Management System data file is defined by a File/Field definition 'FFD', as explained under option (FF); and a standard definition name as explained under option (SD), which identifies the associated data file and FFD names. The FFD and SDNAME must be established before a file can be created or emptied.

This option (CF), is used to establish an empty data file with its associated alternate indexes, if any.

BEWARE: IF YOU ENTER A FILE NAME THAT INCLUDES DATA, THE FILE WILL BE EMPTIED AND YOU CANNOT RECOVER THE DATA!

In the example above, if the file MYWRKFLE exists, it will be recreated empty (no records). If the file does not exist it will be created.

RWx - Report Writer (E,R)**Background information for experienced PROMPT users**

The PROMPT Version 9 Report Writer has been converted to print PDBMS data files. The PDBMS report programs (#PDBGRE=Editor & #PDBGRF=Execution) access a report format stored in a PDS named PARMDBMS, rather than PARMFILE, since the report format is not compatible with Version 9. The standard system setup places PARMDBMS on PBSVOL.

Report data file names are specified as 8-character SDNAMES. The SDNAME definitions are entered and maintained using the PDBMS SDNAME Editor (Option SD on the PROMPT screen). Linking relationships are to index number of file 2 or 3 to field number of file 1 or 2 rather than field number of file 2 or 3 to field number of file 1 or 2. Index 0 is the primary index. The index number of file 1 must be specified to determine the sequence to read the file, as well as files two and three. File 1 can be read in either forward or reverse order.

Data fields are edited for printing using edit codes as explained on following pages (this was the BWZ entry in Version 9).

Background information for new PROMPT users

Mid-American provides training in the use of the report writer, and the following reference will assist in understanding report specifications, editing and execution.

REPORT SPECIFICATION

If a new report is required, the best procedure is to specify the layout of the report using a forms ruler and plain paper. Most reports are actually created from existing reports in an application system such as PROMPT Business System. The report will be given a unique eight character report name that will be saved to the disk so that it may be used time and time again. The report can be run from a menu as well as from the PROMPT screen by setting up the appropriate menu parameters.

Up to three files may be used to produce the report and all file-linking is performed by PROMPT, so the user need only be concerned with the information desired to be printed. Variable report headings and automatic totaling with up to four levels of control are permitted. Report conditions allowing exception reporting or the printing of only selected data, are features of PROMPT's report specification parameter. Page numbering and system date routines are also provided with PROMPT. A report may be directed to the printer or to the terminal where it is presented in a scroll mode.

RWE - Report Format Editor - Read Report

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDBGRE +
|                   PROMPT Database Management System V3.0    #PDBGRE0 |
|                   Report Specification Editor              0 Conds 12 Hdrs |
| Current Report:   0 Files                                0 Dtls  0 Tots |
|                   on                                       |
+                   Enter Option: ( R )                       +
|                   =====                               |
|                   R - READ Report Spec:      (APAGDRPT)      (F1)      |
|                   S - SAVE Report Spec to:   (          )    (F4)      |
|                   P - PRINT Report Spec on:  ($SYSPRTR)      (F6)      |
+                   Z - READ & PRINT Combo      N - NEW Workspace (F3)      +
|                   -----EDIT-----                     |
|                   E - Edit BASE REPORT Spec      (F2)      |
|                   C - Edit Report CONDITIONS      H - Edit HEADER Lines   |
|                   D - Edit DETAIL Lines          F - Edit Secondary TOTALING |
+                   -----END-----                       +
|                   Q - QUIT Without Saving        X - END Program   (F7)   |
|                   -----                               |
|                   Read/Save Volume:  (PBSVOL)          |
|                   |                                       |
+                   |                                       +
|                   |                                       |
|                   |                                       |
|                   |                                       |
| F0=Accept Input   F1=READ          F2=EDIT          F3=NEW          |
+ F4=SAVE           F5=              F6=PRINT        F7=END Program  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of option RWE on the PROMPT menu will cause the above screen to appear. The "Enter Option" will automatically be set as 'R'. If you desire to edit an existing report specification, enter into the the "Read Report Spec" area the name of the report to be edited and press either the F1 or F0 key.

The option will change to "E" and the report spec will be read into the editor. To edit this report press either the F2 or F0 key. The next step in the process of editing an existing report, or entry of a new report is explained on the next page.

To create a new report, press F3 or enter 'N' as an option and press F0. To print the report specification, press F6 or enter 'Z' as an option.

RWE - Report Format Editor - Base Report

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBGRE  +
|                   PROMPT Database Management System V3.0    #PDBGRE1 |
|                   Report Specification Editor                2 Conds 43 Hdrs |
|                                                           15 Dtls  1 Tots |
| Option: EDIT Base Report Spec          3 Files: APBKTFLE,APINVFLE,APVENFLE |
+ Report APAGRPT on volume PBSVOL                                     +
|                                                           Number of Line Space |
|                                                           Between Consecutive |
|                   Index #   Direction                    Records with the |
|                   +-----+-----+-----+ Link To     Same Key Value |
+ File #1|(APBKTFLE)| ( 0 ) | ( F ) |File # Field -1 = Top of Form  +
|                   +-----+-----+-----+-----+-----+-----+ |
| File #2|(APINVFLE)| ( 0 ) | ( F ) | 1 ( 7 ) | ( 0 ) | |
|                   +-----+-----+-----+-----+-----+-----+ |
| File #3|(APVENFLE)| ( 0 ) | ( F ) | ( 1 ) ( 4 ) | ( 0 ) | |
+                   +-----+-----+-----+-----+-----+-----+ +
|
| +---Output Device-----+-----+-----+-----+-----+-----+ |
| | Output Device Code: ( 0 ) HARDCOPY DEV Enter "?" for Code List | |
| | Page Size: (11) in: ( I ) ("I"nches or "L"ines) | |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|
|
| F0=Accept Input      F1=Edit CONDITIONS      F2=              F3=              |
+ F4=Edit HEADERS     F5=Edit DETAILS          F6=Edit TOTALING     F7=Exit          +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of option 'E' from screen #PDBGRE0 or pressing F2=Edit will cause this screen #PDBGRE1 to appear.

The purpose of this screen is to define the files, how each links, the device on which to print the report, the page size and spacing for certain multiple file reports.

The information to be entered for each file (SDNAME) is explained as follows. File numbers are determined from top to bottom, for example the sample screen file numbers would be:

```

File 1 = APBKTFLE
File 2 = APINVFLE
File 3 = APVENFLE

```

***SDNAME - File 1**

Enter the system definition name (see option SD) for file 1. A report can be created using either one, two, or three files. The SDNAME '*' can be entered to allow the desired SDNAME to be entered for file 1 at execution time.

***Index # - File 1**

Enter the index number of file 1 which will determine the sequence of the report as file 1 is the driving file. For example, assume the report is printing records from the customer file where index '0' is account number order and index '1' is search name order.

If you wanted the report in account number sequence, you would enter index 0 for file 1. However, if you wanted the report to be in alphabetic name sequence you would use index 1.

***Direction - File 1**

Enter 'F' for forward, meaning reading the file from front to back, or 'R' for reverse, meaning reading the file from back to front.

***SDNAME - File 2**

If the report requires two or three files, enter the system definition name for file 2.

***Index # - File 2**

The index for file 2 must link to a field in file 1. This means the index must have the same data characteristics of a specified field in file 1. In the example shown, index 0 of APINVFLE (the invoice number) will link exactly to field 7 (invoice number) in the file APBKTFLE.

***Direction - File 2**

Enter 'F' for forward, meaning reading the file from front to back, or 'R' for reverse, meaning reading the file from back to front.

***Link to File 1 Field ()**

Enter the field in file 1 that will link to the index defined for file 2. WHEN YOU LINK, YOU PRINT, SUBJECT TO REPORT CONDITIONS.

For example, the report will be produced by first reading a record in file 1 then reading file 2 for a matching record (a record in file 2 with invoice number equal to the record read for file 1). If a matching record is found in file 2 it will be printed using detail specification discussed later, but printing will be subject to conditions which may be specified, and will also be discussed later.

Next, file 2 is read continuously for all matching records, and when a break occurs (a non-matching record is discovered) file 3 (if specified) will be read in the same manner as file 2.

***Number of line space, etc. - File 2**

It is possible that file 2 could have multiple records that match the link specified for file 1. This entry determines the number of lines to skip between consecutive records in file 2 that have the same key. For example, you might have several records in APINVFLE that have an invoice number matching one record in APBKTFFLE. Appropriate entries are '0' which means ONLY PRINT THE FIRST OCCURANCE, '1' which means single space, '2' for double space, etc., or enter '-1' for top-of-form spacing.

***SDNAME - File 3**

If the report requires three files enter the system definition name for file 3.

***Index # - File 3**

File 3 can either link to file 1 or file 2. Therefore, you must select an index that will link to a field in the file to which you desire to link, either file 1 or file 2. (Refer to Index # - File 2 above).

***Direction - File 3**

Enter 'F' for forward, meaning reading the file from front to back, or 'R' for reverse, meaning reading the file from back to front.

***Link to File () Field ()**

You can link file 3 to either file 1 or file 2. Linking is exactly the same way as explained above for "Link to File 1 Field ()."

***Number of line space, etc. - File 3**

Spacing for file 3 is exactly the same as explained above for file 2.

***Output Device**

This entry determines the device where the report will be printed. Valid entries are as follows:

0: Hardcopy Device (see option JLS)	3. 2nd Printer (LINEPRTR)
1: Printer (\$SYSPRTR)	4. Electronic (ELECTPRT)
2: Video	5. 3rd Printer (PRINTER3)

***Page Size: ()**

- the default page size is 11.
- the minimum entry is '0' which means continuous printing.
- the maximum entry is 21.

***IN: ('I'nches or 'L'ines)**

This entry further defines the page size entry where 'I' means inches or 'L' means number of lines per page. For example, Page Size=11, IN=I means Page Size 11 inches or Page Size=60, IN=L means Page Size=60 lines.

Report conditions are explained next.

***Field Number**

One field number may be entered per condition line for the file # specified.

***Condition**

The following are valid conditions:

=: Equal to,
#: Not equal to,
>: Greater than
: Less than

(If multiple conditions are specified, "AND" logic will apply).

***Value**

- Up to 14 characters may be specified.
- '*'? allows specifying the value at execution time. Where '*'? is used you can enter a literal immediately to the right of 'DAT' which means the execution time value is a DATE. Also, you can enter a brief literal to help the operator understand the condition to be entered at execution time. For example, "DATE BEGIN" or "ACT # >," etc.

Next, report headers are explained.

RWE - Report Format Editor - Enter/Edit Headers

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBGRE +
|                   PROMPT Database Management System V3.0    #PDBGRE3 |
|                   Report Specification Editor      2 Conds 43 Hdrs |
| Option:  EDIT Headers                                15 Dtls  1 Tots |
| Report APAGDRPT on volume PBSVOL      3 Files: APBKTFLE,APINVFLE,APVENFLE |
+ Line Commands are: D=Delete, I=Insert, L=Locate                    +
|
| +---Enter Headers-----+-----+-----+-----+-----+-----+-----+
| | Cmd | Pos.  | Text                | Spacing | Headers: |
| | ( ) | 43    | *** ACCOUNTS       |         | *NAME    |
+ | | ( ) | 56    | PAYABLE            |         | *NAMn    +
| | | ( ) | 64    | INVOICES AGED B   |         | *DATE    |
| | | ( ) | 79    | Y DUE DATE        |         | *DATn    |
| | | ( ) | 90    | ***                |         | *TIME    |
| | | ( ) | 105   | *TIME              |         | *ARGn    |
+ | | ( ) | 117   | *PAGE              | 1      |          +
| | | ( ) | 1     | *NAM*              |         |          |
| | | ( ) | 50    | CO#                 |         |          |
| | | ( ) | 55    | *2                  |         |          |
| | | ( ) | 57    | - BY VENDOR -     |         |          |
+ | | ( ) | 71    | AS OF:             |         |          +
| | | ( ) |       |                    |         |          |
|
| F0=Accept Input      F1=Edit CONDITIONS  F2=Scroll Up      F3=Scroll Down |
+ F4=EDIT BASE REPORT  F5=Edit DETAILS    F6=Edit TOTALING  F7=Exit      +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

You will arrive at this screen by pressing F4 on any other screen, or upon entry of option 'H' on screen #PDBGRE0. The purpose of this screen is to enter or maintain report headings.

You may edit heading information by tabbing to the area to be changed, type over the existing data and press the F0 (send) key to accept it. Lines may be deleted by typing a "D" in the "CMD" bracket in front of the line to be deleted and pressing the F0 (send) key. Lines may be added by tabbing to a blank line entering an "I" into the "CMD" bracket, entering the data and then pressing the F0 (send) key.

Each field to be entered or changed is now explained:

***Pos. (print position)**

Valid print positions are 1-79 for printing to the video, or 1-132 for printer. Character fields are left justified. Numeric fields are right justified.

***Text**

Enter up to 15 characters of heading text. The following special headers may be used:

- *NAME - will print the report name.
- *NAMn - will print the report name, followed by the files used. Whereas, *NAM1 would only print file 1 name, *NAM2 for file 2 or *NAM3 file 3.
- *NAM* prints the report name, plus all file names used.
- *DATE - will print the system date.
- *DATn - will print the date corresponding to the condition. For example, assume you have two conditions, the first with a greater than date and the second with a less than date. To print each of these dates entered at run time, enter *DAT1 for the first date condition and *DAT2 for the second date condition.
- *TIME - will print the system time.
- *ARGn - similar to *DATn used in conditions but for non-dates such as account no. conditions, etc. The first run time argument will be printed using *ARG1, the second *ARG2, etc.

Note, on *DATn and *ARGn the 'n' is the line number of the condition. For example, you might have conditions that are not run time conditions but they are to be counted in determining the number of the condition to enter as 'n'.

- *n - this means print the value of a field number which must be from file 1, where 'n' is the field number.

***Spacing**

Valid entries for spacing "after print" are as follows:

- 1: Single spacing
 - 2: Double spacing
 - 3: Triple spacing, etc.
- Default heading spacing: 2

RWE - Report Format Editor - Enter/Edit Details

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBGRE +
|                   PROMPT Database Management System V3.0    #PDBGRE4|
|                   Report Specification Editor                2 Conds 43 Hdrs|
| Option:  Edit DETAIL Lines                                15 Dtls  1 Tots|
| Report APAGDRPT on volume PBSVOL          3 Files: APBKTFLE,APINVFLE,APVENFLE|
+ Line Commands are: D=Delete, I=Insert, L=Locate                    +
|
| +---+Enter Details-----+-----+-----+-----+-----+
| |      | Data Specification |                               Print Specification | |
| | Cmd | File #  Field #  | Position Total?      Edit          Spacing | |
+ | ( ) | 3 APVENFLE  4    | 1                    NO EDIT          | +
| | ( ) | 1 APBKTFLE 10    | 1                    NO EDIT          | |
| | ( ) | 1 APBKTFLE 10    | 20                   NO EDIT          | |
| | ( ) | 1 APBKTFLE  6    | 8                    NO EDIT          | |
| | ( ) | 1 APBKTFLE  9    | 10                   NO EDIT          | |
+ | ( ) | 2 APINVFLE  6    | 20                   NO EDIT          | +
| | ( ) | 2 APINVFLE 14    | 42                   B BWZ          | |
| | ( ) | 2 APINVFLE 10    | 44                   2 DATE: MDY   | |
| | ( ) | 2 APINVFLE 17    | 53                   2 DATE: MDY   | |
| | ( ) | 1 APBKTFLE 21    | 72                   Y  E BWZ,Commas | |
+ | ( ) | 1 APBKTFLE 22    | 86                   Y  E BWZ,Commas | +
|
|
| F0=Accept Input  F1=Edit CONDITIONS  F2=Scroll Up    F3=Scroll Down |
| F4=Edit HEADERS  F5=EDIT BASE REPORT  F6=Edit TOTALING F7=Exit      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

You will arrive at this screen by pressing F5 on any other screen, or upon entry of 'D' on screen #PDBGRE0. The purpose of this screen is to enter or maintain report detail lines.

You may edit existing detail line information by tabbing to the area to be changed, type over the existing data and press the F0 (send) key to accept it. Lines may be deleted by typing a "D" into the "CMD" bracket in front of the line to be deleted and pressing the F0 (send) key. Lines may be added by tabbing to a blank line entering an "I" into the "CMD" bracket, entering the data and then pressing the F0 (send) key.

Each field to be entered or changes is now explained:

***File #**

Enter the file number from which you desire to print, either 1, 2, or 3.

***Field #**

Enter the field number of the file from which you desire to print.

***Position (to print)**

Valid print positions are 1-79 for printing to the video, 1-132 for printer (left justified for character, right justified for numeric).

***Total?**

Enter 'Y' for this column if the data is numeric and you desire totaling.

***Edit (code)**

Valid edit codes and the resulting print editing are:

	Code	Action
NUMERIC FIELDS:	(blank)	No editing, print value with its decimal precision
	B	Blank when zero
	C	Commas (each thousand)
	D	\$ Sign
	E	(B & C)
	F	(B & D)
	G	(C & D)
	H	(B, C, & D)

Day values are stored in 4-byte numeric fields. January 1, 1600 is day value 1, January 2, 1600 is day value 2, etc. These day values allow sorting, range checking, extracting, etc. on dates. The day values may be converted to dates, if desired, for printing.

	Code	(PDL)	Example
DATE FIELDS:	0	(DEF)	Default to SYSGEN format
	1	(DMY)	DD.MM.YY 31.12.96
	2	(MDY)	MM/DD/YY 12/31/96
	3	(YMD)	YY/MM/DD 96/12/31
	4	(YDD)	YYYY.DDD 1996.365
	5	(DNY)	DD-MON-YYYY 31-DEC-1996
	6	(LIT)	MONTH DD,YYYY December 31, 1996
	7	(DAY)	Name of weekday Tuesday
	8	(MON)	Name of month December

***Spacing (after print)**

Valid entries are as follows:

- 1: Top of form (TOF)
- 1: Single spacing,
- 2: Double spacing, etc.
- Default detail spacing: 1

RWE - Report Format Editor - Enter/Edit Totaling

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDBGRE  +
|                   PROMPT Database Management System V3.0    #PDBGRE5 |
|                   Report Specification Editor                2 Conds 43 Hdrs |
| Option: EDIT Secondary Totaling                             15 Dtls  1 Tots |
| Report APAGDRPT on volume PBSVOL                           |
+-----+-----+-----+-----+-----+-----+-----+-----+
|                   Entering Totaling Information:           |
|                   Title          File #          Field #   |
|                   +-----+-----+-----+-----+-----+ |
+ | (Total for -   ) | ( 3 )  APVENFLE          ( 42 )   | +
|                   +-----+-----+-----+-----+-----+ |
| | (              ) | (    )                   (    )   | |
|                   +-----+-----+-----+-----+-----+ |
| | (              ) | (    )                   (    )   | |
+ |                   +-----+-----+-----+-----+-----+ |
|                   |                                       |
|                   |                                       |
|                   |                                       |
+ |                   |                                       | +
| To Delete:  Blank out Title, File # and Field #           |
|                   |                                       |
| F0=Accept Input  F1=Edit CONDITIONS  F2=                   F3=   |
| F4=Edit HEADERS  F5=Edit DETAILS    F6=EDIT BASE REPORT  F7=Exit |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

You will arrive at this screen by pressing F6 on any other screen, or upon entry of 'T' on screen #PDBGRE0. The purpose of this screen is to enter or maintain sub-totaling levels by file and field number.

You may add or change the totaling information by tabbing to the appropriate area and type the desired data needed. To delete a line blank out the title field # and field #. You must delete lines starting with line 3.

Each field to be entered or changed is now explained:

***Title**

You may enter up to 12 characters for the title for the totaling levels. When the title prints it will be followed by the data from the field number specified. For example, if you are totaling based on an invoice number break, when invoice 1000 is totaled using the example on the screen, the total line would look like this:

Total for - 1000

***File #**

Enter the file number from which you desire to force sub-totaling.

***Field #**

Enter the field number of the file from which you desire to force sub-totaling. The data should be printed in sequence by this field number. For example, if you are totaling on account number, you would want to be reading on an index for account number. Totaling levels specified will occur on a control break for the field number specified.

RWE - Report Format Editor - Save Report

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDBGRE +
|                   PROMPT Database Management System V3.0    #PDBGRE0 |
|                   Report Specification Editor              0 Conds 12 Hdrs |
| Current Report:   0 Files              0 Dtls  0 Tots      |
|                   on                                       |
+                   Enter Option: ( S )                       +
| -----|
|         R - READ Report Spec.      (APAGDRPT)      (F1)      |
|         S - SAVE Report Spec to:   (APAGDRPT)      (F4)      |
|         P - PRINT Report Spec on:  ($SYSPRTR)      (F6)      |
+         Z - READ & PRINT Combo      N - NEW Workspace (F3)  +
| -----EDIT-----|
|         E - Edit BASE REPORT Spec      (F2)      |
|         C - Edit Report CONDITIONS      H - Edit HEADER Lines |
|         D - Edit DETAIL Lines          F - Edit Secondary TOTALING |
+ -----END-----|
|         Q - QUIT Without Saving        X - END Program  (F7)  |
| -----|
|         Read/Save Volume:  (PBSVOL)      |
|                                           |
+                                           +
|                                           |
|                                           |
| F0=Accept Input  F1=READ          F2=EDIT          F3=NEW      |
| F4=SAVE          F5=              F6=PRINT          F7=END Program |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Pressing F7 Exit from any of the screens will take you back to the first screen as shown above.

F7 - Exit

To save a report to the same name, simply press F4 or change the option to "S" and press the F0 key. You will have to press the F0 key again when it prompts you to press the F0 to replace the existing report.

To save the report to a different name, type the new name in the "Save Report Spec to" bracket then press F4.

This completes the explanation of the report format editor.

RWR - Report Writer Run

To print a report, the user selects this option and enters the name of any previously stored report. The report will either print on the printer specified, or will be displayed on the terminal from which it is executed if specified on screen #PDBGRE1.

NOTE: The RWR may be stopped by entering the command: > END.

Also, when running from a PC workstation you must press the backspace key prior to entry of the stored report specification name.

The pre-stored report name is entered as 8 alphanumeric characters, and the report will print after the data files are linked.

Report Writer Parameter Passing Using PROMPT Job Language (PJL)

To store a report specification in a PJL menu or procedure, the PJL screen #PJEMNU8 should be completed like the example shown on the next page.

Assuming a report name of ARBALRPT, the extended parameters screen should look like the example screen #PJEMNUA on the page following the next page.

Number of Copies

#PDBGRF can be passed the number of spool copies desired. Put the number of copies, from 1 to 127, in the first 1-Byte Integers parameter of the extended parameters menu specification screen. This option only functions when:

- 1) The name of the report is passed to #PDBGRF from the menu, and
- 2) When the target output device is spooled. The default copy count is 1.

Summary Reports

To print a summary report only, put an 'S' from the first 1-Character Alpha parameter of the extended parameters menu specifications, and using #PDBGRF. When used in this manner, the *NAM* header literal previously described adds "--(SUM)" after the report name.

FR - Field Report

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05           Mid-American Control Corporation           |
|                   PROMPT Database Management System V3.0     |
|                   File Field Reporting Facility               |
|                   |                                           |
| 1. Data File SDNAME.....: ( ARCUSFLE )                       |
| 2. Print Field Numbers.....: ( 1 )( 2 )(   )(   )(   )(   ) +
|                   (   )(   )(   )(   )(   )(   ) |
| 3. Print by Index Number...: (   )                           |
| 4. Conditional Field Number: ( 1 )                             |
| 5. Conditional Operator....: ( > )                             |
| 6. Conditional Value.....: ( 500                               ) +
| 7. Printer.....: ( $SYSPRTR )                                  |
|                   |                                           |
|                   |                                           |
+-----+-----+-----+-----+-----+-----+-----+-----+
| All records of the file specified in entry 1 that meet the optional |
| condition specified in entries, 4, 5 and 6 will have the list of fields |
| specified in entry 2 printed on the printer specified in entry 3 (blank= |
| all). The conditional operators for entry 5 are ">", " ", "=", and "#" |
| for "greater than", "less than", "equal to" and "not equal to", respec- +
| tively.                                                         |
|                   |                                           |
| F0=Accept Input  F1=           F2=           F3=           |
| F4=           F5=           F6=           F7=Exit Screen |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of the option FR on the PROMPT screen will cause a screen like the example above to appear.

The purpose of the facility is to print field information in a "quick fashion" without taking the time to set up a report specification as provided in option RWE. This is like a file dump facility except organized headings are provided from the FFD.

Each field of information to be entered is now explained.

1. Data File SDNAME
Enter the system definition name of the file for which you desire to print.
2. Print Field Numbers
To print all fields in the file no entry is required. To print data from specific fields only, enter the field number involved.

3. Print by Index Number
The index number of the file determines the sequence of the report. If no index number is entered, index 0, the primary index will be used.
4. Conditional Field Number (optional)
You can print data for all records in a file, or you can print data for selected records based on the value of a field. In the example shown the field number 1 is entered. Using this example, all records with a value greater than 500 (see number 6 below) in field 1 will be printed. If all records are to be printed no entry is required.
5. Conditional Operator
If a conditional field number is entered in 4 above, you must define the operator such as equal, greater than, less than or not equal to.
6. Conditional Value
If 4 and 5 above are entered, use this field to enter the value for comparison. For example, the sample screen shows account numbers greater than 500 in field 1. This means all records in 'ARCUSFLE' with a value in field 1 greater than 500 will be printed. If the conditional value is a date, it must be entered as MM/DD/YY.
7. Printer
Enter the printer device name upon which to print the report.

FY - Field Copy

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05                Mid-American Control Corporation                +
|                          PROMPT Database Management System V3.0        #PDRPT0 |
|                          File Field Copy Facility                      |
| 1.  Data File SDNAME.....: ( ARWRKFLE )                               |
+ 2.  Source Field Numbers....: ( 23 ) ( 24 ) (   ) (   ) (   ) (   ) +
| 3.  Target Field Numbers....: ( 51 ) ( 52 ) (   ) (   ) (   ) (   ) |
| 4.  Conditional Field Number: (           )                             |
| 5.  Conditional Operator....: (   )                                     |
| 6.  Conditional Value.....: (           )                             |
+ 7.  On Data Errors (Skip, Clear, Quit): ( Q )                          |
+
|-----|
| All records of the file specified in entry 1 that meet the optional    |
| condition specified in entries 4, 5, and 6 will have the list of fields |
+ specified in entry 2 copied to the corresponding fields in entry 3.      +
| Day/date conversion takes place between NL4 and CL8 DECS=0 fields, if    |
| required.                                                                  |
| The conditional operators for entry 5 are ">", " ", "=", "#" for "greater |
| than", "less than", "equal to" and "not equal to", respectively.        |
+
|
| F0=Accept Input  F1=                F2=                F3=                |
| F4=                F5=                F6=                F7=Exit Screen  |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of the option FY on the PROMPT screen will cause a screen like the example above to appear.

The purpose of the facility is to copy data from one field in the file to another field in the file. Up to six fields can be copied simultaneously.

Data conversion will be automatically done when copying character to numeric or numeric to character. When copying an 8 character field with data of MM/DD/YY to a four byte numeric field the data will be converted to a PROMPT day value. See option 'DC' for more information.

Each field of information to be entered is now explained:

1. Data File SDNAME
Enter the system definition name of the file for which you desire to use.

2. Source Field Numbers
3. Target Field Numbers
Enter the field in 2 corresponding to the field in 3. Using the example screen, the source field 23 is moved to the target field 51. This means that the data in field 23 will be copied to field 51, with data in field 23 left as is.
4. Conditional Field Number (optional)
You can copy field data for all records in a file, or you can copy field data for selected records in a file based on the value of a field.
5. If a conditional field number is entered in 4 above, you must define the operator such as equal, greater than, less than, or not equal to.
6. Conditional Value
If 4 and 5 above are entered use this field to enter the value for comparison. A date can be entered in this value if entered as MM/DD/YY.
7. On Data Errors
The default is Q = Quit, or you can chose S = Slip or C = Clear

ES - Extract, Sort/Merge

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #XTRMRG  +
|                   PROMPT Database Management Facilities    #XTRMRG0 |
|                   Generalized File Extract/Merge           |
|
| INPUT FILE SDNAMES: 1: ( ARCUSOLD ) 2: (           ) 3: (           ) |
+                   4: (           ) 5: (           ) 6: (           ) +
|
| OUTPUT FILE SDNAMES: 1: ( ARCUSNEW ) (ALL RECORDS MEETING CONDITIONS) |
|                   2: (           ) (RECORDS NOT MEETING CONDITIONS)   |
|
+ IF/AND/OR|FLD NO|CONDITION-EQ/NE/LT/GT/LE/GE|F/C|FIELD NUMBER/COND. VALUE +
|   IF      |   6   |           EQ           |  C  |   KY   |
|           |       |                       |    |       |
|           |       |                       |    |       |
+           |       |                       |    |       |
|           |       |                       |    |       |
|           |       |                       |    |       |
+           |       |                       |    |       |
|           |       |                       |    |       |
|
| F0=Accept Input  F1=           F2=           F3=           |
+ F4=           F5=           F6=           F7=Exit Screen  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of option ES on the PROMPT screen will cause a screen like the example above to appear.

You can use this facility to extract data from a file into another file, as long as both files are no larger than 512 bytes in record size. The output files can be a file of records meeting the desired conditions and a separate file of records that do not meet the desired conditions.

You can have multiple input files, all of which must have identical File/Field definitions.

In the example above, records in the file ARCUSOLD that have the letters "EQ" in field 6 will be "extracted" into the file ARCUSNEW.

FC - File Conversion

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05 13:49:34 *** Generalized File Conversion ***                #CONVER0 +
| Direction F/R: (F)                                                    |
| Input File SDNAME.: ( ARCUSFLE ) Output File SDNAME.: ( ARCUSWRK ) |
| |-----Input Field Range-----|                                     |
| 1st Input Field  Last Input Field  1st Output Field                 |
| 1 ( 1 )          ( 44 )           ( 1 )                             |
| 2 ( )            ( )              ( )                               |
| 3 ( )            ( )              ( )                               |
+ 4 ( )            ( )              ( )                               +
| 5 ( )            ( )              ( )                               |
| 6 ( )            ( )              ( )                               |
| 7 ( )            ( )              ( )                               |
| 8 ( )            ( )              ( )                               |
+ 9 ( )            ( )              ( )                               +
| 10 ( )           ( )              ( )                               |
| 11 ( )           ( )              ( )                               |
| 12 ( )           ( )              ( )                               |
| 13 ( )           ( )              ( )                               |
+ 14 ( )           ( )              ( )                               +
| 15 ( )           ( )              ( )                               |
| F0=Begin Conversion  F1=                F2=                F3=                |
+ F4=                F5=                F6=                F7=Exit Screen +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of option FC on the PROMPT screen, will cause a screen like the example above to appear.

You can use this facility to convert data attributes from one File/Field Definition to a different File/Field Definition, or to convert data into a similar FFD where a few data attributes have changed. You cannot convert a file into itself. This can be accomplished by converting into a separate file, then deleting the old file, and renaming the new file to the old file name.

Direction F/R: If "F" is entered the conversion will start at the beginning of the input file and proceed forward.

If "R" is entered the conversion will start at the end of the input file and proceed in reverse order.

The last input field will accept a -1 to designate "to the end of the file". For example if you entered a 1 as the first input field and a -1 as the last input field this means all fields in the file.

CC - Case Conversion

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDFCAS0  +
|                   PROMPT Database Management System V3.0    |
|                   Case Conversion Facility                   |
| 1. Data File SDNAME.....: ( ARCUSFLE )                     |
+ 2. Conversion Type.....: ( M ) (U=Mixed to Upper, M=Upper to Mixed) +
| 3. Conversion Fields.....: ( 2 ) ( 3 ) ( 4 ) ( 5 ) ( 50 ) (   ) |
| 4. Conditional Field Number: ( 35 )                         |
| 5. Conditional Operator....: ( = )                           |
| 6. Conditional Value.....: ( P                               ) |
+-----+-----+-----+-----+-----+-----+-----+-----+
|
|-----|
| All records of the file specified in entry 1 that meet the condition |
+ specified in entries 4, 5 and 6 (optional) will have the fields specified +
| in entry 4 converted to upper or mixed case as specified in entry 2. |
|
| The conditional operators for entry 5 are ">", "<", "=", and "#" for |
| "greater than", "less than", "equal to" and "not equal to", respectively. |
+-----+-----+-----+-----+-----+-----+-----+-----+
|
| F0=Accept Input      F1=                F2=                F3=                |
+ F4=                F5=                F6=                F7=Exit Screen  +
+-----+-----+-----+-----+-----+-----+-----+
Selection of option CC on the PROMPT screen will cause a screen like the
one shown above to be displayed.

```

The purpose of this facility is to change alphabetic text in a specified field or fields of a file. The program permits changing upper case data to mixed cases or changing mixed case data to upper case.

Each field of information to be entered is now explained.

1. Enter Data File SDNAME
Enter the system definition name of the file for which you desire to convert the alphabetic text case.
2. Conversion Type (U=Mixed to Upper, M=Upper to Mixed)
Enter 'U' if you desire to convert mixed case to upper. For example, if you had the text "John Jones, Jr." it would be converted to "JOHN JONES, JR." Enter 'M' if you desire to convert all upper case text to mixed. The program will capitalize the first letter of each word. For example, if you had the text "JOHN JONES, JR." it would be converted to "John Jones, Jr."

Converting text has no impact on numbers such as a street address like "123 MAPLE DRIVE" or "123 Maple Drive". The numbers are not modified at all. The same is true of special characters such as dash, period, comma, etc.

When converting to mixed case it is always a good idea to print the converted text for review because sometimes you get an undesired result. For example, you might have the company name "JOHNSON'S OF LOUISVILLE" converted to "Johnson's Of Louisville" when you prefer "Johnson's of Louisville".

3. Conversion Fields
Enter the field numbers for the data you desire to convert. Up to six field numbers may be entered.
4. Conditional Field Number (optional)
You can convert data for all records in a file, or you can convert data for selected records based on the value of a field. In the example shown, the field number 35 is entered. Using this example, all records with 'P' (see number 6 below) in field 35 will be converted. If all records are to be converted, no entry is required in screen fields 4, 5, or 6.
5. Conditional Operator
If a conditional field number is entered in 4 above, you must define the operator such as equal, greater than, less than or not equal to.
6. Conditional Value
If 4 and 5 above are entered, use this field to enter the value for comparison. For example, the sample screen shows text equal to 'P' for field 35. This means all records in 'ARCUSFLE' with a 'P' in field 35 will have the alphabetic text converted from upper to mixed case for the field numbers given. If the conditional value is a date it must be entered as MM/DD/YY.

FG - File Flag

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDFPUR  +
|                   PROMPT Database Management System V3.0    #PDFPUR0 |
|                   File Flagging Facility                    |
| |
| 1. Data File SDNAME.....: ( INPROFLE )                    |
+ 2. Flag Field Number.....: ( 24 )                          +
| 3. Flag Value.....: ( 10 )                                |
| 4. Conditional Field Number: ( 4 )                          |
| 5. Conditional Operator....: ( = )                          |
| 6. Conditional Value.....: ( CHEM )                          |
+-----+-----+-----+-----+-----+-----+-----+-----+
| |
| All records of the file specified in entry 1 that meet the condition
| specified in entries 4, 5 and 6 will be flagged in the field specified
| in entry 2 with the value specified in entry 3. If the conditional
+ field number (entry 4) is not specified, then all records will be +
| flagged.                                                    |
| |
| The conditional operators for entry 5 are ">", "less than", "=", and "#"
| for greater than, less than, equal to and not equal to, respectively.
+-----+-----+-----+-----+-----+-----+-----+-----+
| |
| F0=Accept Input  F1=                F2=                F3=                |
| F4=                F5=                F6=                F7=Exit Screen |
+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of option FG will cause a screen like the one shown above to be displayed. Choose this option if you wish to insert into a chosen field a specific value for all records in the file that meet a specified condition.

In the example above, the number 10 (item 3) will be put into field 24 (item 2) of records in the file INPROFLE (item 1) if those records have the value CHEM (item 6) in field 4 (item 4). Entry 6 conditional value can be a date entered as MM/DD/YY.

PJL Parameter Passing for File Flagging (#PDFFLG,PDBLIB)

Enter the extended parameters menu specifications as follows:

```

8-Character Alpha   1: (SDNAME) blank=parameters ignored
                   2: (Flag value) "Run-Time" supplied at run time
                   3: (Cond value) "Run-Time"=supplied at run time
1-Character Alpha  1-5: (Cond operator) blank=supplied at run time
4-Byte Integers   1: (Flag field #) -1=supplied at run time
                   0=flag all fields
                   2: (Cond field #) -1=supplied at run time
                   0=purge all records

```

FS - File Sequencer

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PDFSEQ  +
|                   PROMPT Database Management System V3.0    #PDFSEQ0 |
|                   File Sequencing Facility                  |
| 1. Data File SDNAME.....: ( ARTSTFLE )                    |
+ 2. Field Number.....: ( 3 )                                +
| 3. Starting Value.....: ( 0 )                               |
| 4. Incremental Value....: ( 1 )                             |
|-----|
+ If entry 2 is blank or 0, the number of records and fields per record of +
| the file specified in entry 1 will be returned. If entry 2 is not blank |
| or 0, all records of the file will have the field specified in entry 2 |
| altered as follows: If the field is a character (alphabetic) field, the |
| value specified in entry 3 will be stored in it. If the field is a |
+ numeric field, the records are read sequentially on index 0 and the field +
| receives the accumulated result of entry 4 and the previous read, with |
| the first record receiving the contents of entry 3. |
| |
+ |
| F0=Accept Input  F1=          F2=          F3=          |
| F4=          F5=          F6=          F7=Exit Screen |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of the option FS will cause a screen like the example above to appear.

This facility is used to:

1. Count the number of records in a file, or;
2. Place an alpha-numeric value into a character field in all records of a file, or;
3. Place a constant numeric value, or an incremental numeric value into a numeric field of all records of a file.

In the example above, the first record in the file ARTSTFLE will have a zero put in field 3. The second record will have a 1 put in field 3. The third record will have a 2 put into field 3, etc. until the end of the file is reached.

PJL Parameter Passing for File Sequencer (#PDFSEQ,PDBLIB)

Enter the extended parameters menu specifications as follows:

8-Character Alpha	1:	(SDNAME) blank=parameters ignored
	2:	(Start value) "Run-Time" supplied at run time
	3:	(Incr value) "Run-Time"=supplied at run time
1-Character Alpha	1-5:	(Cond operator) blank=supplied at run time
4-Byte Integers	1:	(Seq field #) -1=supplied at run time
		0=flag all fields
	2:	Do not use this parameter position

FMx - File Migration (x=S, R)

The PROMPT File Migration utility program provides the ability to migrate data into and out of the PROMPT database. Data can be migrated from the EDX sequential file access method, from IBM's \$IAM access method, and from PROMPT version 9 files. Migration from the database into these file types is also provided.

It is a requirement that the keys to all PROMPT/DBMS data files be located at offset zero from the front of the record. Since this restriction does not exist in the EDX, \$IAM, and the PROMPT version 9 files, the key can be relocated to a position other than at the front of the record.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PDBFMU  +
|                  PROMPT Database Management System V3.0    #PDBFMU0 |
|                  File Migration Utility                    |
|                                                           |
|                                                           |
+                   Options available:                       +
|                                                           |
|                   ED - Migrate from EDX to PROMPT Database |
|                   ID - Migrate from IBM $IAM V.2 to PROMPT Database |
|                   PD - Migrate from PROMPT V.9 to PROMPT Database |
+                                                           +
|                   DE - Migrate from PROMPT Database to EDX   |
|                   DI - Migrate from PROMPT Database to IBM $IAM V.2 |
|                   DP - Migrate from PROMPT Database to PROMPT V.9 |
+                                                           +
|                   Enter Option:                             |
|                                                           |
|                                                           |
+                                                           +
|                                                           |
|                                                           |
| F0=Accept Input   F1=           F2=           F3=           |
+ F4=           F5=           F6=Function Key   F7=Exit Program +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

Each option is explained below:

ED - Migrate from EDX to PROMPT Database

An EDX sequential file will be transferred into a file in the PROMPT Database.

ID - Migrate from IBM \$IAM V.2 to PROMPT Database

A file created under version 2 of IBM's \$IAM will be migrated to a file in the PROMPT Database.

PD - Migrate from PROMPT V.9 to PROMPT Database

A file created under PROMPT version 9 will be transferred to a file in the database.

DE - Migrate from PROMPT Database to EDX

A PROMPT database file will be migrated to an EDX sequential file.

DI - Migrate from PROMPT Database to IBM \$IAM V.2

A PROMPT database file will be converted to a file in IBM's \$IAM version 2 format.

DP - Migrate from PROMPT Database to PROMPT V.9

A PROMPT database file will be converted to a PROMPT version 9 file.

FMS - File Migration Specification

The explanation found above describes how to use file migration in an 'on-line' environment, whereby, you enter the parameters and then execute the program.

If you desire to store the parameters in a file for subsequent reference in a job stream, use the option (FMS) to enter and store the specifications.

These specifications are defined by an FFD named PDBFMFLE.FFD which is stored in the main directory. The associated data file name is PDBFMFLE.DATA.

AI - Alternate Indexer

The PROMPT Alternate Index Builder program provides the ability to create one or all alternate index files for a specified PROMPT/DBMS data file. The program requires that an SDNAME exist defining the data file for which the alternate indexes will be generated. The SDNAME entry must also include the name of the FFD to be used. This FFD must have the alternate index or indexes defined.

#PDBINDEX - PROMPT/DBMS ALTERNATE INDEX BUILDER

*** WARNING ***

EXISTING ALTERNATE INDEX FILE(S) WILL BE DELETED.
CREATION OF NEW ALTERNATE INDEX FILE(S) DEPENDS ON
SUCCESSFUL COMPLETION OF THE PROGRAM.

ENTER SDNAME DEFINING DATA FILE & FFD: GLACTFLE

The user enters the name of the SDNAME entry that defines the file whose alternate index file(s) are to be created, and the FFD to be used. After the SDNAME is entered, the following message appears:

ENTER ALTERNATE INDEX NUMBER (0=ALL): 0

The number of the alternate index to be created is entered. If all alternate indexes are to be created, a zero is entered. If a number other than zero is specified, the FFD must contain the definition of this index. When zero is entered, each alternate index defined in the FFD will be created.

After the index number has been specified, the program begins the creation of the alternate index file(s). If no errors are encountered, the program will run to completion and end automatically. When errors are encountered, a message is generated on the terminal and the program will end without creating the alternate index file(s).

DU - Database Utility

The database utility program provides commands that allow the user to list, rename, copy, patch or delete data in the database, create a database backup, restore the database from backup, and unlock records in the data files.

Entering a question mark (?) or HELP and a blank command name will generate a list of utility commands as illustrated below:

COMMAND (?): ? Note: Commands must be entered in upper case
 COMMAND: Note: the first 2 characters of a command are sufficient

PDBMS UTILITY COMMANDS (2 CHARS REQUIRED):

```

ARCHIVE   DATASET GENERIC (DATE)
CLEAR     FILENAME (KEYDATA)
COPY      SOURCE   TARGET (KEYDATA)
CREATE    NAME (DIR/RECLEN KEYLEN)
DELETE    NAME
DIRECTORY (GENERIC)
DUMP      FILENAME (KEYDATA)
HELP      (COMMAND)
LIST      (PRINTER)
LOAD      DATASET GENERIC (DATE)
PATCH    FILENAME (KEYDATA)
RENAME    FILENAME NEWNAME
SET       (DIRNAME/..)
SNQ
SQ
UNLOCK    FILENAME (RESET/COUNT (KEYDATA))
  
```

Items described within parentheses are optional parameters to the command. The program will prompt for missing required parameters and for some optional parameters. Each command may be specified using the first two characters of the command. If a required parameter is not entered, the program prints the following message

REQUIRED PARAMETER MISSING

and ignores the command.

ARCHIVE (AR)

The archive command saves the files in the current directory whose names match the generic text into an EDX dataset in sequential format. The optional DATE parameter restricts the archive to those files that have been opened for update on or after the date specified. The EDX dataset must be pre-allocated and the output may span several datasets.

CLEAR (CL)

The clear command will delete selected records or all of the records in a file or group of generic files. The file to be cleared may not be locked. A directory may not be cleared. If a partial key is specified, only those records matching the key will be deleted if they are not locked.

COPY (CO)

The copy command copies the source file or directory into the destination file or directory. This command supports a generic source name. The record and key lengths may be changed and the source and target may be on different directories. The optional third parameter restricts the copied records to those records that match the specified key.

CREATE (CR)

The create command produces an entry in the current directory for the file specified. The filenames may contain from 1 to 18 characters and must not contain a comma or a space. After entering the name of the file to be created, the user must indicate whether the file is a directory or a data file. A subdirectory is specified by entering 'DIR' following the name of the directory; an indexed file is specified by entering the record length and key length for the file.

DELETE (DE)

The delete command removes a file from the current directory. If the file contains records and the program is operating in the prompting mode, a message will be issued, and the program will wait for the user to reply 'Y' to delete the file, or 'N' to keep the file. A subdirectory may not be deleted unless it is empty.

DIRECTORY (DI)

The directory command generates a list of the files contained in the current directory. The directory list is displayed on the user's terminal or on the last device specified on a list command.

DUMP (DU)

The dump command displays the records in a data file beginning with the first record or with the first record equal to or greater than the key value specified.

END (EN)

The end command terminates the #PDBUTIL program.

HELP (HE)

The help command generates a short narrative describing the use of the utility command specified.

LIST (LI)

The list command directs the output from directory and dump commands to the specified terminal. If no terminal name is given, the output will go to \$SYSPRTR. An asterisk (*) may be used to designate the user's terminal.

LOAD (LO)

The load command restores the data files to the database from the EDX dataset into which they were previously archived. Files can be restored based upon a specific date or generic name. If the optional DATE parameter is used, all files on the EDX dataset matching the generic text specified that had been opened for update on or after the indicated date will be loaded into the database.

PATCH (PA)

The patch command allows the user to add, delete or modify the data contained in a record of a data file. The record to be patched can be specified by key value. The offset into the record determines where the changes will occur. The record is displayed both before and after the patch so that the user may indicate if the changes are to occur. Key values are not permitted to be changed by the patch command. When the specified offset is part of the key, the program will ask if the record is to be deleted. If the answer is 'Y', the record will be deleted. All changes to a record may be specified before the resulting record is displayed for approval.

RENAME (RE)

The rename command changes the name of a file or a directory in the current directory.

SET (SE)

The set command is used to change to another directory. The specified directory becomes the current directory upon which all subsequent utility commands will operate. If no directory name is specified on the set command, the main directory becomes the current directory. A double period (..) specified as a directory name will return to the previous directory. A single period (.) displays the name of the current directory. All directory names are specified relative to the current directory. Multiple names may be entered separated by commas.

SNQ (SN)

The SNQ command is used to set the utility program in a no-prompt mode. Under this mode the program does not prompt the user for missing operands on the commands and automatically takes the default values for unspecified operands. Confirmation by the user prior to executing certain commands is not requested. The PROMPT Database Utility program automatically operates in the no-prompt mode when it is loaded by another program to utilize command file processing.

SQ

The SQ command restores the utility program to prompting mode. Under this mode the program will prompt the user for missing operands on the utility commands and will also request the optional parameters available on some commands. The PROMPT Database Utility program automatically operates in the prompting mode after it is loaded.

UNLOCK (UN)

The unlock command will reset a locked file and optionally reset all locked records contained in the file. A parameter after the filename specifies if the file is to be scanned for locked records. "RESET" (or "RE") causes the locked records to be unlocked and "COUNT" (or "CO") causes the program to count the locked records without unlocking them. If a partial key is specified, the file is not unlocked and only the records with a matching key are scanned and reset or counted. The filename may be specified as a generic value.

PM - Parmfile Manager

This program is used to manage the parameter file storage area (called PARMDBMS) on a volume. The primary use of PARMDBMS is to hold report specifications, but it is possible for the file to hold PROMPT Version 9 (PDT) specifications. In the PROMPT Business System application system, all report specifications are stored in PARMDBMS which is located on PBSVOL.

The PDT PROMPT Version 9 parmfile specifications are stored in PARMFILE on PDFVOL. The PARMGR program commands include:

CD - Change database PARMFILE/volume
 CM* - Copy members
 CP - Compress PARMFILE
 DE* - Delete members
 EN - End program
 IN - Initialize PARMFILE
 LA* - List directory to terminal
 LP* - List directory to printer
 ST - Display status of PARMFILE

NOTE: Those with an asterisk allow the use of the wild card character '*' to designate that any characters are acceptable in that position; also partial names may be specified, e.g. *FCB will list/copy/delete all parameter file names ending with the three letters 'FCB'; INV**RPT will reference all parameter files beginning with 'INV' and ending with 'RPT'; 'PAY' will reference all parameter files beginning with 'PAY'.

CM - Copy Members

SOURCE OK?: Lists the name of the user's PARMDBMS, PBSVOL
 Y = yes
 N = No, user enters new source nnnnnnnn, volume

TARGET OK?: User enters name of target nnnnnnnn, volume
 Y = yes
 N = No, user may re-enter target nnnnnnnn, volume

INPUT MATCHING

CHARACTERS: User specifies name (or part of name) of member to be copied. If left blank, all files are copied. Allows use of wild card character '*'.

COPY MEMBERS

INDIVIDUALLY: Y = Questions user on each file name.
 N = Automatically copies all names.

PRINT HISTORY OF
COPIES MADE:

Y = Yes, N = No

OUTPUT TO
PRINTER:

Y = Yes (\$SYSPRTR), N = Display on video.

AUTOMATIC DELETE
EXISTING MEMBERS
DESTINATION?:

Y = Yes, N = Does not copy if duplicate.

START AT
PARTICULAR
MEMBER?:

If yes, enter starting member name. N=start at
beginning of directory.

NOTE: The CM may be stopped by entering the command: > END.

CD - Change PARMFILE Name and Volume.

This prompts the user for the name of the new partitioned data set and volume, and points the PARMGR program to that PARMFILE.

CP - Compress PARMFILE.

This reclaims space in PARMFILE by moving all members together and grouping all unused space at the end of PARMFILE. It displays the status (ST), then provides the opportunity to compress.

DE - Delete Members.

This is used to delete parameter files from PARMFILE.

INPUT MATCH

CHARACTERS: The user enters the name of members to delete.
A wild card character '*' is available, or if left
blank, the user is questioned to delete each file by
name.

EN - End Program. This returns control to the PROMPT menu.

IN - Initialize PARMFILE.

This creates the directory for a new PARMFILE and erases all members currently in the PARMFILE.

Enter No. of Records for Directory - User defined, this should be at least 2% of the PARMFILE size. It creates the number of directory entries for the PARMFILE, $d = [(n * 16) - 1]$ - where 'n' is the number of records in the directory and 'd' is the number of directory entries. The directory size will be 'd'.

ENTRIES OK? Y = Initialize.
N = Re-enter the number of records in the directory.

LA - List Directory to Terminal.

This lists directory members on a terminal, and allows the use of the wild card character '*'.

LP - List Directory to Printer.

This lists directory members on the system printer (\$SYSPRTR), and allows use of the wild card character '*'.

ST - Display Status of PARMFILE.

This displays the size of PARMFILE, the number of entries, and percentage of the area in use. It is used to determine if compress (CP) is needed.

PC - Printer Control File

```

+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05 12:20 p.m.      PROMPT Business System      #PBSPRT0  +
|                               Printer Control File Editor                               |
|                               +-----Data Entry Area-----+                       |
|                               | Access   Printer   Printer   Page   HP Printer PCL   |
+                               | Key      Name      Type      Length Control Codes   +
|                               | (      ) (      ) (      ) (      ) (      ) (      ) |
+---C,D,L---+-----+-----+-----+-----+-----+-----+-----+-----+
| | ( ) | ***** |
| | ( ) | #BAPAGE0  PRINTER3   IBM      66      27 38 107 52 83 |
+ | ( ) | #BAPENTD  PRINTER3   IBM      66      27 38 107 52 83 |
| | ( ) | #BAPENTQ  CHECKPRTR  IBM      42 |
| | ( ) | #BARSTM0  ELECTPRT   IBM      66 |
| | ( ) | #BGLAPA0  $$SYSPRTR  IBM      66 |
| | ( ) | #BGLFSX0  $$SYSPRTR  IBM      66 |
+ | ( ) | #BGLJEM0  $$SYSPRTR  IBM      66 |
| | ( ) | #BINCPRO  PRINTER4   IBM      66      27 "&l1H" 27 "(s12H" |
| | ( ) | #BINVWRO  $$SYSPRTR  IBM      42 |
| | ( ) | #BOPBATO  $$SYSPRTR  IBM      42 |
| | ( ) | #BOPBIU0  $$SYSPRTR  IBM      66 |
+ | ( ) | #BOPEOD0  $$SYSPRTR  IBM      66 |
+ | ( ) | #BOPSARO  $$SYSPRTR  IBM      66 |
| | ( ) | #BPRPRT0  $$SYSPRTR  IBM      42 |
| | ( ) | #PDBCFP0  $$SYSPRTR  IBM      66 |
| | ( ) | #PDBGRF0  PRINTER3   IBM      66      27 "&l1E" 27 "(s16H" |
| | ( ) | APSTUBPR  PRINTER3   IBM      42 |
|
| F0=Accept Input  F1=          F2=Scroll Reverse  F3=Scroll Forward
+ F4=          F5=          F6=Inquire          F7=Exit Screen  +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

Select this option to add, change or delete printer control records.

This file holds records to direct certain programs to print on specific printers: For example: #BPRPRT0 (payroll check writer), #BINCPRO (Customer Price Report), and #BAPENTD (A/P pre-check register).

It is important to understand the difference between the implementation of specific programs verses the Report Writer (#PDBGRF0). A specific program, for example #BPRPRT0 prints Payroll Checks to a specific printer, therefore there will (and can) be only one entry for this program in the printer control file, and any workstation using this program will print to this designated printer.

However, if the printer that the Report Writer is directed to IS in the printer control file it can have PCL codes passed to determine the tray, if applicable, and the print size. In other words, you can enter the report writer in the control file multiple times by using a different suffix after #PDBGRFN, such as 0, 1 2, 3 etc.

To add a new record, enter the program name into the "access key" bracket, the printer name (specified in sysgen) in the "printer name" bracket, the printer type (IBM, TTY) in the "printer type" bracket and the page length in lines (66 lines=11 inches at 6 lines per inch) in the "page length" bracket. Press F0 or send to accept this entry.

To change an existing record, tab to the command bracket in front of the record to be changed, insert a "C" and press F0 (send). Make changes as necessary by tabbing to different fields and then press F0 (send) to accept the changes.

To delete an existing record, tab to the command bracket in front of the record to be deleted, insert a "D" and press F0.

JLx - Job Language (S,M,P)
JLS - Job Language Control File

The configuration control file is a PROMPT database file that contains the parameters that control the operation of the PROMPT Job Control program. The file is composed of four record types:

1. The system control records define system-wide parameters and defaults to be used by the P JL control program.
2. The terminal control records define the terminals to be automatically started when the P JL control program is loaded.
3. The user control records contain the user ID's and passwords of the individuals who have access to the system.
4. The background processor records define the characteristics of the tasks that will execute background jobs.

The configuration control file maintenance program allows the system manager to create and update the information contained in the control records.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05                Mid-American Control Corporation                #PJECCF  |
|                        PROMPT Data Base Management System V 3.0        #PJECCF0  |
|                        Job Language Control File Maintenance            |
|                                                                    |
| Options Available:                                                                    |
|                                                                    |
|      P - Print the control file on ($SYSPRTR)                                     |
|      S - Change the System Control Records                                       |
|      T - Change the Terminal Control Records                                     |
+     U - Change the User Control Records                                         +
|      B - Change the Background Processor Control Records                       |
|      X - Exit program (Same as F7)                                              |
|                                                                    |
| Enter Option:                                                                    |
+                                                                    +
| Note: Changes to the system control records will take effect the             |
| next time the P JL Control Program is loaded.                                   |
|                                                                    |
+                                                                    +
|                                                                    |
| F0=Accept Input   F1=           F2=           F3=           |
+ F4=           F5=           F6=           F7=Exit Program   +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The above option menu is displayed. From this screen the user enters the desired option.

Selecting 'S' from the option menu will produce the following screen:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PJECCF  +
|                   PROMPT Data Base Management System V 3.0  #PJECCF1 |
|                   Job Language Control File Maintenance      |
|                   * System Control Record *                  |
|                                                             |
|                   System Parameters                          +
|                                                             |
|                   Max. No. Logon Attempts Allowed:         ( 3  ) |
|                   Max. No. Terminals to be Supported:      ( 10 )  View only |
|                   Max. No. Background Processors:          ( 2  ) |
+                   Logon Timeout Value (seconds):            ( 360 )  +
|                   Menu Timeout Value (seconds):             ( 360 )  |
|                   Pjl Logging Device:                       ( $SYSLOG ) |
|                   Pjl Logging Parameter (ON,OFF,ALL):       ( ON  ) |
|                                                             |
+                   Minimum Dynamic Storage Required for Pjl Control Program: 18688  +
|                                                             |
|                                                             |
|                                                             |
+                   F0=Accept Input      F1=Redisplay          F2=          F3=          +
|                   F4=                   F5=                   F6=Function Key  F7=Cancel Function  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The fields in the system control record are described below:

MAX. NO. LOGON ATTEMPTS ALLOWED - Enter the number of times the control program will allow a user to reenter his user ID and password before disabling his terminal.

MAX. NO. TERMINALS TO BE SUPPORTED - Enter the maximum number of terminals that the Pjl Control program will automatically start when it is loaded. (The maximum number of terminals that can be controlled by Pjl is 21.) **This field is for view only.**

MAX. NO. BACKGROUND PROCESSORS - Enter the maximum number of background processor tasks that the Pjl Control Program will automatically start when it is loaded.

LOGON TIMEOUT VALUE - Enter the number of seconds that the logon screen will wait for the user to enter his user ID and password before returning to the logo screen.

MENU TIMEOUT VALUE - Enter the number of seconds that the supervisor or application menu will wait for the user input before returning to the logo screen.

PJL LOGGING DEVICE - Enter the name of the terminal or printer device that will receive all PJL messages, error, and logging information.

PJL LOGGING PARAMETER - Enter either ON, OFF or ALL depending upon the extent of message logging desired.

MINIMUM DYNAMIC STORAGE REQUIRED FOR PJL CONTROL PROGRAM - The value displayed in this field is the computation of the minimum dynamic storage required for #PJLCP based on the maximum number of terminals and background processors entered on the screen.

Select 'T' from the option menu and press enter, or point to a defined terminal and press F4 to get the following screen:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PJECCF  +
|                   PROMPT Data Base Management System V 3.0  #PJECCF4  |
|                   Job Language Control File Maintenance      |
|                   * Terminal Control Record *                |
|
| Terminal Name:     ( #SYSLOG )                                +
|
| Display Supervisor Menu?:          ( Y )                    |
| Allow Terminal Stop/Disable?:      ( Y )                    |
| Allow System Global Attention?:     ( Y )                    |
+ Allow Concurrent User ID Usage?:   ( Y )                    +
| Is This a Switched (Dial-In) Line?: ( N )                    |
|
| Program Names Suffix: ( )                                     |
| Hardcopy Device Name: ( $SYSRTR )                             |
+ Comments:           ( MAIN TERMINAL )                         +
|
|
|
|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| F0=Accept Input   F1=Redisplay      F2=          F3=          |
+ F4=ADD ANOTHER    F5=Delete Terminal F6=Function Key F7=Cancel  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The following information is entered for each terminal:

TERMINAL NAME - Enter the 8-character name assigned to the terminal in the system.

DISPLAY SUPERVISOR MENU - Enter a 'Y' in this field if the terminal will have supervisor capabilities.

ALLOW TERMINAL STOP/DISABLE - Enter a 'Y' in this field if the terminal may be stopped or disabled from the supervisor menu by a user who also has the ability to stop or disable a terminal.

ALLOW SYSTEM/GLOBAL ATTENTION - Enter a 'Y' in this field if a user with system /global attention abilities may obtain the attention key to enter a system command.

ALLOW CONCURRENT USER ID USAGE - Enter a 'Y' in this field if a user with concurrent user ID usage may log onto the system at this terminal after having logged onto the system from another terminal.

IS THIS A SWITCHED (DIAL-IN) LINE - Enter a 'Y' in this field if the terminal is connected to an auto-answer modem.

PROGRAM NAMES SUFFIX - Enter the one-character suffix to be appended to the names of programs executed on this terminal.

HARDCOPY DEVICE NAME - Enter the 8-character name of the device to be used as the hardcopy device for the terminal if it differs from the device assigned to the terminal in the sysgen.

The Hardcopy Device is a very important field for use in running a PROMPT application system such as PROMPT Business System.

The Hardcopy Device determines where a PROMPT Report Writer report will print if initiated from this terminal provided the PROMPT Report Writer output device is specified as 0. (See menu option RWE - Report Format Editor Base Report and see menu option PC -Printer Control File)

COMMENTS - Enter any miscellaneous information about the terminal being defined, such as location, primary user, etc.

Select 'U' from the option menu and press enter, or point to a user ID and press F4 to get the following screen:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJECCF  +
|                  PROMPT Data Base Management System V 3.0  #PJECCF5  |
|                  Job Language Control File Maintenance      |
|                  * User Control Record *                    |
|                                                            |
+          User ID:   ( OPEN )                                +
|          Password: ( PBS )                                  |
|          Name:     ( JOHN DOE          )                    |
|                                                            |
|          Default Class Code: ( )                            |
+                                                            +
|          Display Supervisor Menu?:      ( N )              |
|          Allow Terminal Stop/Disabled?:  ( Y )              |
|          Allow System/Global Attention?: ( Y )              |
|          Allow Concurrent User ID Usage?: ( Y )              |
+                                                            +
|          Initial Procedure to Execute After Logon: ( PBS.START.PROC ) |
|          User's Security Level:             ( 0 )            |
|          User's Default Background Processor ID: ( )         |
|                                                            |
+                                                            +
|                                                            |
|                                                            |
| F0=Accept Input   F1=Redisplay       F2=          F3=          |
+ F4=ADD ANOTHER    F5=Delete User     F6=Function Key F7=Cancel  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
    
```

- The following information is entered for each user:
- USER ID - Enter the user ID that will be used during logon.
- PASSWORD - Enter the password that will be used during logon.
- NAME (optional) - Enter the name of the person to whom the user ID and password belongs.
- DEFAULT CLASS CODE (optional) - Enter the class code that will determine the memory partition into which programs run by this user will be loaded.
- DISPLAY SUPERVISOR MENU - Enter a 'Y' in this field if the user will have supervisor capabilities.
- ALLOW TERMINAL STOP/DISABLE - Enter a 'Y' in this field if the user may stop or disable his terminal from the supervisor menu.

ALLOW SYSTEM/GLOBAL ATTENTION - Enter a 'Y' in this field if the user may obtain the attention key to enter system commands from a terminal that also has this capability.

ALLOW CONCURRENT USER ID USAGE - Enter a 'Y' in this field if the user may log onto the system from more than one terminal at a time.

INITIAL PROCEDURE TO EXECUTE AFTER LOGON - Enter the name of the procedure to be executed after successful logon when the user has no supervisor privileges.

USER'S SECURITY LEVEL - Enter a value from 0 through 127 to indicate the user's security level.

USER'S DEFAULT BACKGROUND PROCESSOR ID - Enter the 1-character processor ID to which the background jobs will be submitted when the user selects the 'B' option from the supervisor menu.

Select 'B' from the option menu and press enter, or point to a processor name and press F4 to get the following screen:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJECCF  +
|                  PROMPT Data Base Management System V 3.0  #PJECCF8  |
|                  Job Language Control File Maintenance      |
|                  * Background Processor Control Record *    |
|                                                              |
+                                                              +
|          Background Processor Name:   ( PSCAN      )        |
|                                                              |
|          Processor ID:                ( 1 )                |
|          Class Code:                  (   )                |
+          Priority Level (256-510):     ( 0 )                +
|          Polling Delay (in seconds):  ( 900 )              |
|          Comments:                    ( BATCH ORDE ENTRY   ) |
|                                                              |
|                                                              |
+                                                              +
|                                                              |
|          F0=Accept Input   F1=Redisplay   F2=          F3=          |
+          F4=ADD ANOTHER    F5=Delete Processor F6=Function Key F7=Cancel  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The following information is entered for each background processor:

BACKGROUND PROCESSOR NAME - Enter the 8-character name that identifies the background processor.

PROCESSOR ID - Enter the 1-character ID assigned to the background processor.

CLASS CODE - Enter the 1-character memory class code that will determine the partition into which programs that are executed by the background processor task will be loaded.

PRIORITY LEVEL - Enter the priority level for programs that are executed by the background processor task.

POLLING DELAY - Enter the number of seconds that the background processor task should wait before rechecking the background job queue for a job to execute.

COMMENTS - Enter any miscellaneous information about the background processor.

JLM - Job Language

The menu definition maintenance program allows the user to create and maintain the menu definitions that will be processed under PJJ.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJEMNU  +
|                   PROMPT Data Base Management System V 3.0  #PJEMNU0 |
|                   Menu Definition Editor                    |
|                                                             |
+                   Options Available:                        +
|                                                             |
|                   A - Add a new Definition                  |
|                   B - Browse a Definition                  (Same as F0) |
|                   C - Change a Definition                  |
+                   D - Delete a Definition                    +
|                   P - Print a Definition on ($SYSPRTR)     |
|                   X - Exit program                          (Same as F7) |
|                   Enter Option:                            |
+                   |                                        +
|                   |                                        |
|                   |                                        |
|                   |                                        |
+                   |                                        +
|                   |                                        |
|                   |                                        |
|                   |                                        |
+                   |                                        +
| F0=Accept Input   F1=          F2=          F3=          |
+ F4=               F5=          F6=          F7=Exit Program +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The above option menu is displayed. From this screen the user enters the desired option.

When an option other than X is selected from the above screen, the program will display the input and output definition name screen as illustrated on the next page.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJEPJL  +
|                   PROMPT Data Base Management System V 3.0  #PJEMNU1 |
|                   Menu Definition Editor                    |
|   The input definition file is: ( BSOP.MENUFOP2.MENU )      |
+-----+-----+-----+-----+-----+-----+-----+-----+
|   The input directory path is:                               |
|   ( BSOP.DIRECTORY                                         ) |
|   (                                                         ) |
|   (                                                         ) |
+   (                                                         ) +
|   The output definition file is: ( *                       ) |
|   The output directory path is:                             |
+   ( *                                                         ) +
|   (                                                         ) |
|   (                                                         ) |
|   (                                                         ) |
+ Note:  If the output name/directory matches input, you may use * or ". +
|
|
|
| F0=Accept Input      F1=                F2=                F3=                |
+ F4=                F5=                F6=Function Key      F7=Exit Program      +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

After the input and/or output menu definition names have been specified successfully, the following selection menu is displayed:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05                Mid-American Control Corporation          #PJEPJL  +
|                          PROMPT Data Base Management System V 3.0  #PJEMNU3  |
| Option:  ADD                Menu Definition Editor                |
|                                                                    |
+                                                                    +
|                          Select from the following:              |
|                                                                    |
|                          M - Menu definition                      |
|                          P - Print definition on ($SYSPRTR)      |
+                          S - Save Workfile to TEST.MENU          (Same as F4)  +
|                          X - Exit without saving changes         (Same as F7)  |
|                                                                    |
|                          Enter Selection: ( M )                  |
|                                                                    |
+                          The name of the menu image is: ( #OP2MENU ) on ( OPLIB ).  +
|                                                                    |
|                                                                    |
+ Note:  If F7 is pressed, changes to the definition will not be saved.  +
|                                                                    |
|                                                                    |
| F0=Accept Input   F1=View Menu   F2=                F3=                |
+ F4=Save Changes   F5=                F6=Function Key   F7=Exit without Saving  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The following sections are available on this menu:

- M - Menu definition

This option will allow the user to add, change, delete, or browse the processes that will occur for each option defined on the user's menu.
- P - Print definition on the hardcopy device

Selecting 'P' will cause the menu editor to list the processes that will occur for each option defined on the menu. The name of the hardcopy device to receive the report may be changed by the user.
- S - Save workfile

The 'S' option will cause the editor to save the changes that have been made in the output menu definition file.

X - Exit without saving changes

The 'X' option will generate the following message on the screen:

WARNING, CHANGES WILL NOT BE SAVED. PRESS F0 TO CONTINUE OR
F7 TO RESPECIFY.

The message indicates that the changes that have been made will not be saved. If this is desired, the user presses F0. Otherwise, F7 is used so that another selection may be made.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05                Mid-American Control Corporation                #PJEPJL  +
|                                PROMPT Data Base Management System V 3.0                #PJEMNU4 |
| Option:  ADD                Menu Definition Editor                Total Options: 11 |
|
| Def Name:  BSOP.MENUFOP2.MENU  Menu Name:  #OP2MENU , OPLIB  Scroll: HALF |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| | Option ID | F/B/P/M | Proc/Pgm/Menu Name | Directory Path / Volume | |
| +-----+-----+-----+-----+-----+-----+-----+-----+ |
| | $S      |   P    | #PJLSPL            | PJLLIB                  | |
| | D1      |   F    | BSOP.MNUOP2D1.PROC | BSOP.DIRECTORY         | |
+ | | D2      |   F    | BSOP.MNUOP2D2.PROC | BSOP.DIRECTORY         | +
| | D3      |   F    | BSOP.MNUOP2D3.PROC | BSOP.DIRECTORY         | |
| | D4      |   F    | BSOP.MNUOP2D4.PROC | BSOP.DIRECTORY         | |
| | D5      |   F    | BSOP.MNUOP2D5.PROC | BSOP.DIRECTORY         | |
| | D6      |   F    | BSOP.MNUOP2D6.PROC | BSOP.DIRECTORY         | |
+ | | G1      |   F    | BSOP.MNUOP2GL.PROC | BSOP.DIRECTORY         | +
| | H1      |   F    | BSOP.MNUOP2H1.PROC | BSOP.DIRECTORY         | |
| | ***** |         |                     |                         | |
| |         |         |                     |                         | |
| |         |         |                     |                         | |
+ | |         |         |                     |                         | +
| |         |         |                     |                         | |
| |         |         |                     |                         | |
| +-----+-----+-----+-----+-----+-----+-----+ |
| F0=Add New Option  F1=View Menu      F2=Scroll Up      F3=Scroll Down  |
+ F4=Change Option  F5=Delete Option  F6=Function Key 0  F7=Exit Menu    +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The following function keys are available on this screen:

F0=Add New Option - This key causes the maintenance program to display the action codes that are available as menu options.

F1=View Menu - Pressing F1 will cause the program to display the user's menu and wait for the user to enter any function key. It then returns to the menu option screen.

F2=Scroll Up - When F2 is pressed, the program will scroll towards the beginning of the menu definition for the number of lines indicated in the SCROLL field.

F3=Scroll Down - Entering F3 will cause the program to scroll towards the end of the menu definition for the number of lines specified in the SCROLL field.

F4=Change Option - This function key allows the user to change the information contained in the menu option record. To use this feature, the cursor must be positioned on the option ID identifying the menu option to be changed.

F5=Delete Option - Menu option records are deleted by positioning the cursor on the option ID to be deleted and pressing the F5 function key. A confirmation message is displayed when F5 is pressed:

```
DELETE REQUESTED--PRESS F0 TO DELETE OPTION, F7 TO CANCEL DELETE
```

If F0 is pressed, the option is deleted; if F7 is pressed, the delete operation is not performed.

F6=Soft Function Key - The value of this key is initially set to 0 but may be changed by the user to a value between 0 and 7. The value entered in this field corresponds to another key whose purpose is explained at the bottom of the screen. Only those keys that are defined may be used.

F7=Exit Menu - This key causes the program to return to the selection menu.

When action code 'F' is selected for a menu option, or when an option referencing a foreground procedure is being changed or browsed, the following screen is displayed.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05          Mid-American Control Corporation          #PJEMNU  +
|                   PROMPT Data Base Management System V 3.0  #PJEMNU6 |
| Option:  ADD              Menu Definition Editor              |
|                   |                                         |
| Def Name:  BSOP.MENUFOP2.MENU  Menu Name:  #OP2MENU , OPLIB  |
+-----+-----+-----+-----+-----+-----+-----+-----+
|                   ** Foreground Execution **                |
|                   |                                         |
| Option ID.....: ( D5      ) Security Level.....:( 0  )    |
|                   |                                         |
+ Procedure to Execute....: ( BSOP.MNUOP205.PROC )             +
|                   |                                         |
| Procedure Directory Path:                                     |
| ( BSOP.DIRECTORY                                           ) |
| (                                                           ) |
+ (                                                           ) +
| (                                                           ) |
|                   |                                         |
| Class Code.....: (      )                                     |
|                   |                                         |
+ Pass Default Symbols?...: ( N )                               +
|                   |                                         |
|                   |                                         |
| F0=Accept Input   F1=View Menu   F2=                       F3=   |
+ F4=               F5=           F6=Function Key 0   F7=Cancel New Option +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

The fields contained in the foreground execution are described below:

Option ID - Enter the name that the user will enter to identify this option. This field may be a number or an alphanumeric value up to 8 characters in length.

Security Level - Enter the security level assigned to this menu option. When a user selects this option, his security level will be compared to the value in this field. If the menu option's security level is less than or equal to the user's security level, the user may select the option. If the menu option's security level is zero, any user may select the option.

Procedure to Execute - Enter the name of the procedure to be executed when this option is selected.

Procedure Directory Path - Enter the directory level within the database where the procedure is located. This field may contain subdirectories separated by commas.

Class Code - This field contains the class code that will be used by the memory management logic to find a partition for the programs loaded by the procedure.

Pass Default Symbols - This field contains a 'Y' if the symbols passed to the menu are to also be passed to the new procedure. A value of 'N' is used if no symbols are to be passed.

When an option other than X is selected from the first screen, the program will display the input and output procedure name screen as illustrated below:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJEPJL  +
|                   PROMPT Data Base Management System V 3.0  #PJEPJL1 |
| Option:  CHANGE          Job Language Procedure Maintenance  |
|                                                           |
|                                                           |
+   The input procedure name is: ( BSOP.MNUOP2D1.PROC )      +
|   The input directory path is:                               |
|   ( BSOP.DIRECTORY                                         ) |
|   (                                                         ) |
|   (                                                         ) |
+   (                                                         ) +
|                                                           |
|   The output procedure name is: ( *                          ) |
|   The output directory path is:                               |
|   ( *                                                         ) |
+   (                                                         ) +
|   (                                                         ) |
|   (                                                         ) |
|                                                           |
+   Note:  If the output name/directory matches input, you may use * or ". |
|                                                           |
| F0=Accept Input      F1=                F2=                F3=                |
+ F4=                  F5=                F6=Function Key 0 F7=Exit Program  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The name of the option selected is displayed in the upper left-hand area of the screen. The cursor will be positioned on the first required entry on the screen. The BROWSE, DELETE and PRINT options only require an input procedure name and directory path. The ADD function requires only an output procedure name, while the CHANGE option requires both an input and output procedure name. On a CHANGE, if the output procedure name and/or directory is the same as the input procedure name and/or directory, the user may enter an * or " for the matching output field. After the input and/or output procedure names have been entered and the input procedure has been found, the following message is displayed on the message line for all options except ADD.

COPYING PROCEDURE INTO WORK FILE...

After the input procedure has been read into the work file, processing continues as dictated by the option chosen.

After the input and output procedure names have been entered and accepted, the program displays the following screen:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          Mid-American Control Corporation          #PJEPJL  +
|                   PROMPT Data Base Management System V 3.0  #PJEPJL3 |
| Option:  CHANGE          Job Language Procedure Maintenance  |
|
| Procedure Name:  BSOP.MNUOP2D1.MENU          Number of Statements:  8  |
+ Line Commands:  A=Add after B=Add before C=Change D=Delete P=Print  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
||Line Cmd| Line | Stmt|          Operands          ||
+-----+-----+-----+-----+-----+-----+-----+-----+
| (      )   1   PGM  #BOPDRS OPLIB Y N          |
+ (      )   2   RUN                                     +
| (      )   3   IF   END NE -1                    |
| (      )   4   PGM  #PDBGRF PDBLIB PBSVOL Y Y N OPORDRPT  |
| (      )   5   RUN                                     |
| (      )   6   PGM  #PDFCRT PDBLIB Y Y N OPODKFLE          |
+ (      )   7   RUN                                     +
| (      )   8   LBL  END                            |
| (      )   ****                                     |
| (      )                                           |
| (      )                                           |
+ (      )                                           +
|
|
|
| F0=Execute Line Cmd  F1=Redisplay  F2=Scroll Up    F3=Scroll Down  |
+ F4=Copy/Move Lines  F5=Input Mode  F6=Function Key 0 F7=Exit Program  +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

The name of the option selected and the procedure name are displayed in the upper left-hand area of the screen. The scroll value is displayed in the upper right-hand corner, and the number of statements in the procedure is displayed below the scroll value.

It is possible to copy or move one or more lines from one section of a procedure to another. The function key F4 is pressed and the following screen is displayed:

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 01/01/05           Mid-American Control Corporation           #PJEPJL  +
|                   PROMPT Data Base Management System V 3.0   #PJEPJL6 |
| Option:  CHANGE           Job Language Procedure Maintenance   |
|                   |                                           |
| Procedure Name:  BSOP.MNUOP2D1.MENU           Number of Statements:  8 |
+-----+-----+-----+-----+-----+-----+-----+-----+
|                   |                                           |
|                   Copy/Move (C/M):           (   )           |
|                   Starting Line Number:       (   )           |
|                   Ending Line Number:         (   )           |
+-----+-----+-----+-----+-----+-----+-----+-----+
|                   After/Before (A/B):        (   )           +
|                   Target Line Number:         (   )           |
|                   |                                           |
|                   |                                           |
+-----+-----+-----+-----+-----+-----+-----+-----+
|                   |                                           |
|                   |                                           |
+-----+-----+-----+-----+-----+-----+-----+-----+
| F0=Accept Input   F1=           F2=           F3=           |
+ F4=           F5=           F6=Function Key 0   F7=Cancel Copy/Move +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

The date, option, procedure name, and the number of statements in the procedure are displayed on the screen. The fields on the screen are defined below:

Copy/Move - Enter a 'C' if the operation is a copy, or 'M' if the lines are to be moved from one section of the procedure to another.

Starting Line Number - Enter the first line number to be copied or moved.

Ending Line Number - Enter the last line number to be copied or moved. If only one line is to be copied or moved, the ending line number may remain blank.

After/Before - If the lines are to be copied or moved after the target line, enter 'A'; if the lines will be copied or moved before the target line, enter a 'B'.

Target Line Number - Enter the line number before or after which the specified lines will be copied or moved.

After the changes have been saved or discarded, the program returns to the main option menu so that another procedure may be created, deleted, changed, or printed, or the program may be ended.

UTL - Utilities Menu

This menu should only be accessed by the main VGA monitor attached to the PROMPT Linux server.

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05          PROMPT Business Systems          #PJLCP      +
|                                     UTILITY MENU   #UTLMENU  |
|                                                                 |
|          CP - Copy Dataset          ROF - Set Roll Off      |
+                                                                 +
|          CU - Copy Utility           ROL - Set Roll On       |
|                                                                 |
|          D1 - Disk Utility-1         MA - Memory Map         |
|                                                                 |
+          D2 - Disk Utility-2         MO - Monitor PDBMS Usage  +
|                                                                 |
|          FC - File Conversion        TU - Terminal Utility    |
|                                                                 |
+                                                                 +
|                                     Enter option          |
|                                                                 |
+                                                                 +
|                                                                 |
|                                                                 |
+ F0=ACCEPT OPTION          F7=EXIT SCREEN          +
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

When this option is chosen a menu like the one above is displayed.

Below is a brief description of each option.

CP - Copy dataset is a low level utility to be used ONLY BY EXPERIENCED users. It is primarily for flat file partition data set copy allowing a copy of all or part of the records in the file.

CU - Copy Utility performs several related copy functions all relating to flat files. It is to be used ONLY BY EXPERIENCED users.

- D1 - Disk Utility 1 performs several commonly-used flat file management functions. It is to be used ONLY BY EXPERIENCED users. The primary purpose of this utility is to allocate data sets for use by the PROMPT Database Management System. The "How To" procedure that requires the use of this utility explain exactly how to use it.
- D2 - Disk Utility 2 performs additional flat file functions not included in Disk utility 1 such as clear a data set and dump a data set. It is to be used ONLY BY EXPERIENCED users. The primary purpose of this utility is to clear data sets for use by the PROMPT Database Management System. The "How To" procedure that requires the use of this utility explain exactly how to use it.
- FC - File convert among other things will convert a flat PROMPT file to ASCII text. It is to be used ONLY BY EXPERIENCED users. Generally where needed this utility is called in a job stream. You might find it used in a "How To" procedure in which case specific instructions will be provided as to how to use it.
- ROF - Set Roll Off sets the screen to scroll without stopping.
- ROL - Set Roll On sets the screen to stop scrolling at the bottom of each screen.
- MA - Memory Map gives a picture by memory partition of the current contents of programs in memory. You can not damage anything by looking at a memory map.
- MO - The PROMPT Database Management System requires that disk space be allocated for use by the database Manager (#PDBCP). This utility is actually loaded in memory at all times to monitor the usage of this pre-allocated space and will report when additional space must be allocated. It is on this menu for the purpose of viewing the current usage but this must be done exactly as instructed.

To check usage enter option MO and press enter. At Command type **re** and press **enter**. Respond to REPORT TO: by typing ***** then press **enter**.

You will see something like this:

```

SCALE: 0 -----20-----40-----60-----80-----100%
Current Usage:  34%*****
Threshold Level: 80%*****

```

The above example means that only 34% of the space allocated to the database is currently in use. At the threshold level (80% in the example) the system will warn you that you need to add data space, however, you have time as 20% of the space has yet to be used.

There is additional information provided including the logging device (where the warning will appear) and the Interval (how frequently the warning is issued).

To exit the utility at command type: **en** and press **enter**
Respond to "Terminate the monitor program" with a **Y** and press **enter**

TU - Terminal Utility is a general purpose terminal utility program to be Used only by experienced users. It's primary use is to display the terminals specified in the sysgyn.

BKU - Display Backup/Unlock Menu

```

+-----+-----+-----+-----+-----+-----+-----+-----+
+ 01/01/05                PROMPT Business System                #PBSULBK +
|                               Unlock, Backup Menu                |
|                               |                               |
|   Close All Files           Close Data Files           Backup Data Files |
|                               & Unlock Records           |
+   APF - A/P                 APR - A/P                 APB - A/P   +
|   ARF - A/R                 ARR - A/R                 ARB - A/R   |
|   GLF - G/L                 GLR - G/L                 GLB - G/L   |
|   INF - I/N                 INR - I/N                 INB - I/N   |
|   OPF - O/P                 OPR - O/P                 OPB - O/P   |
+   POF - P/O                 POR - P/O                 POB - P/O   +
|   ALF - All                 ALR - All                   |
|                               |                               |
|                               |                               |
+                               +                               +
|                               |                               |
|           ROL - Set Screen to Roll       ROF - Turn Off Screen Roll |
|                               |                               |
+                               +                               +
|                               |                               |
|                               |                               |
|                               |                               |
|                               |                               |
+ F0=Accept Option                F7=Exit Screen                +
+-----+-----+-----+-----+-----+-----+-----+-----+

```

Selection of the option BKU on the PROMPT menu will cause the above screen to appear. Each category of options is now explained.

Close All Files

Use this category of options to close all files in a subsystem, or use the option ALF to close all files of all subsystems. This option closes files only and does not reset a locked record within a data file.

Close Data Files and Unlock Records

Use this category of options to close the data file, and unlock all records within the data files, for a subsystem; or use ALR for all subsystems.

Backup Data Files

This is for a technical user only. Contact our office for assistance if you desire to archive a complete subsystem to a flat file.

File Close and Unlock Instructions for PROMPT Business System

The primary use of these options is for system cleanup after crash recovery. For example, you might experience a loss of power to the computer while programs are running and cause everything to stop.

In this event, the only loss of data that could occur is where data has been entered on a video but the send/enter key has not been pressed.

However, it is possible that one or more data files might have been open for use by a computer program when the system experienced a loss of power. It is also possible that one or more data records within a data file might have been locked for exclusive use by a program at the time the system experienced a loss of power.

Therefore, the purpose of the first two columns of menu options is:

1. Close All Files - these options close all files within a subsystem.
2. Close Data Files & Unlock Records - these options close only data files, and unlock all records in data files.

Crash Recovery Instructions

There are two approaches to running the various options after a loss of power to the computer. (1) Reset everything, or (2) reset only what you know to have been in use.

Reset Everything

To reset everything, run the option ALF which will close all files which include data files, file field definition (FFD) files, index files (X001, etc) menus and procedure files. This menu will take only approximately 2-3 minutes to run, and this option runs automatically when the system is taken down and restarted again.

Next, run the option ALR which will close only data files and reset any locked records in the data files. The length of time it takes this option to run depends upon the size of your data files. It could range from 10 minutes up to an HOUR or so if you have very large data files. A typical running time is 15-25 minutes.

Reset Only What You Know to Have Been in Use

It is wise to first select the option ALF in this event because it runs quickly. Next, if you know for example that the only subsystem in use was general ledger, you would only select the option GLR which would close data files and unlock records for only the general ledger system.

Please note that if order processing was in operation during a loss of power it is necessary to run the options ARR, INR, and OPR.

Risk of Failure to Unlock a Record

If you take a short cut and fail to unlock a record that was locked during a loss of power, the only risk you are taking is that you will encounter the locked record and the program will unexplainably wait on the record.

If this should occur, simply run the Close Data Files and Unlock Records option for the subsystem where the unexplained wait occurs and the unlocked record will be reset. Thereby, allowing the program to continue operation.

