

FAMIS PROCEDURES MANUAL

VOLUME II - SYSTEM MAINTENANCE MANUAL

CHAPTER III

SYSTEM MANAGEMENT FILE

The System Management File (SM-File) is a single record file that controls many of the key FAMIS processing functions. Internal system controls exercised through the SM-File include:

- identification of accounting periods;
- control over monthly and annual transaction postings;
- maintenance of status information for system tables and files; and
- specification of report extract rules based on the status of year-end closing and merge/purge processing.

Most of the data elements contained in the SM-File are maintained by the various programs that access the file. However, if necessary, users may manually adjust the values contained in the SM-file through the preparation and processing of a System Management File Maintenance Record (MM-Record). The remainder of this chapter describes the structure, content, maintenance procedures and output reports for the SM-File.

FILE STRUCTURE

The SM-File is a single record file that, for purposes of discussion, can be divided into four major segments. The four segments are:

- Current-Prior Segment;
- Current Processing Cycle Segment;
- Transaction Counts; and
- Table/file Counts.

Each segment provides important control information.

Current-Prior Segment

As its name implies, the Current-Prior Segment contains information that indicates which accounting periods are available for posting. There are six

data elements in the Current-Prior Segment:

- Current Fiscal Year - A two character field that identifies the current fiscal year;
- Prior Fiscal Year - a two-character field that identifies the prior fiscal year;
- Prior Fiscal Year Open - a one-character indicator that identifies if the prior fiscal year is open for posting;
- Current Fiscal Month - a two-character field that identifies the current fiscal month;
- Prior Fiscal Month - a two-character field that identifies the prior fiscal month;
- Prior Fiscal Month Open - a one-character indicator that identifies if the prior fiscal month is open for posting.

Accounting transactions processed by FAMIS must contain a fiscal month equal to the current month or prior month, as specified in the SM-File. An exception to this rule occurs at year-end when prior year closing transactions may be submitted with a fiscal month of 13 or 14 (which identifies the transactions as special prior year closing transactions). These transactions will be rejected, however, if the Prior Fiscal Year Open indicator equals 'N'-Not Open. Similarly, input accounting transactions referencing the prior fiscal month when the Prior Fiscal Month Open indicator equals 'N'=Not Open, will be flagged as an error and placed on the FAMIS error file.

Current Processing Cycle Segment

In addition to the current and prior period information, the SM-file also maintains data elements that identify the current processing date and time and the last processing date and time. The four data elements in the current processing cycle segment are:

- Current Processing Date - in the MM/DD/YY format;
- Current Processing Time - in the HH:MM format;

- Last Update Date - in the MM/DD/YY format;
- Last Update Time - in the HH:MM format; and
- Year End Close Indicator - a one-character indicator identifying the status of the closing process.

The current processing date and time is taken from the internal computer clock each time FAMIS is updated. The current processing date and time are inserted into and permanently stored in accounting transactions processed during a particular update cycle. This provides an additional internal system control and audit trail in that any processing cycle could be recreated from the information maintained on the FAMIS History File. This information is also especially useful when attempting to reconcile account balances with transactions from the history file.

The current processing date and time are also retrieved by all programs executed in a given update cycle and placed in the page heading of the programs' activity report. As a result, the activity reports generated by the various programs in a given processing cycle will all contain the same processing date and time as the first program executed. This technique facilitates the identification of each update cycle and the various activity and error reports produced by the system.

The Year-End Close Indicator is a one-character indicator that identifies the status of the year-end closing process. Valid values for the Year-End Close Indicator are:

- blank - closing not completed;
- C - closing transactions generated;
- M - merge/purge process complete.

The indicator is maintained internally by the system programs and cannot be modified by the user. The annual rollover program changes the indicator to a

blank, indicating that the closing programs have not been executed. When the closing programs are executed the indicator is automatically changed to a 'C'. Finally, when the merge/purge process is complete, the indicator is automatically changed to a 'M'. This indicator is used primarily by the financial report programs to determine which records to extract and which periodic value fields to use to compute reported balances. See Volume I, Chapter VIII, 'Financial Reporting' for specific reporting rules.

Transaction Counts

A third function of the SM-File is to maintain and report transaction counts for each input, edit and update or table maintenance update cycle. Separate counters are maintained for the following transaction types:

- input accounting transactions;
- error correction transactions;
- management statistics file maintenance transactions;
- valid internal transactions;
- invalid internal transactions;
- appropriation account code table maintenance transactions;
- cost center table maintenance transactions;
- contract ledger table maintenance transactions;
- department activity table maintenance transactions;
- descriptor table maintenance transactions;
- project control table maintenance transactions;
- transaction code decision table maintenance transactions; and
- batch vendor edit maintenance transactions.

These transaction counts are displayed on various activity reports produced by the input, edit and update and table maintenance modules. These activity reports should be reconciled to the externally maintained control logs to ensure that all accounting, error correction, and table maintenance transactions submitted for processing were actually processed by the system. These transaction counts are temporary counts and exist only during subsystem processing for purposes of producing the activity reports.

Table/File Counts

The final function of the SM-File is to maintain and report information on all table, master file, and shadow file records counts. Separate counters are maintained for the number of records input, the number of new records added, the number of records deleted, and the final output record count. These record counts provide a quick reference as to the number of records contained on the system tables and files and require only review. These record counts provide another check to ensure that the proper version of the files is used if it becomes necessary to restore the system to an earlier processing date and rerun accounting or table maintenance transactions.

SM-FILE MAINTENANCE

Once the SM-file has been initialized during the start of new system operations, it will require very little maintenance by user personnel. However, when SM-File maintenance is required, a System Management File Maintenance Coding Form (illustrated in Exhibit III-1) should be completed and submitted for keying. The resulting SM-File maintenance transaction will be used by Program 100-Data Input and Classification, to update the SM-File.

As illustrated in Exhibit III-1, the SM-File maintenance transaction contains three separate input segments. These are the Maintenance Operator, Data Element Name, and MM-Value Field. Valid values that may be coded in each of these fields and the resulting system action are identified in Exhibit III-2.

All SM-File maintenance transactions are fully edited before the SM-File is updated. Maintenance transactions that fail the edit criteria are rejected and displayed on the System Management File Maintenance Activity Report (illustrated in Exhibit III-3) with the appropriate error code and message. Error codes and messages that apply to SM File maintenance activity are listed in Exhibit III-4. A detailed description of each error code is provided in Appendix E.

OUTPUT REPORTS

The SM-File Listing is a two-page report. The first page, illustrated in Exhibit III-5, displays the status of the Current-Prior Segment, Current Processing Cycle Segment and Transaction Counts. The second page, illustrated in Exhibit III-6, displays the Table-File Counts.

Each time the input, edit and update or table maintenance module is executed, two versions of the SM-File Listing are produced. The first version reflects the status of the SM-File as of the end of the previous update. The second report reflects the status of the SM-File at the end of the current update cycle. These reports should be reviewed after each cycle to ensure that the ending file counts of the previous update cycle agree with the beginning file counts of the current cycle. This review ensures that no activity has occurred in the system and that no alterations have been made to the files between the two update cycles.

EXHIBIT III-2

SYSTEM MANAGEMENT FILE MAINTENANCE
CODING INSTRUCTIONS

MAINTENANCE OPERATOR	DATA ELEMENT NAME	MM-VALUE FIELD	SYSTEM ACTION														
<p>Enter one of the following:</p> <ul style="list-style-type: none"> o INIT o CHANGE 	<p>If the INIT function is selection, the Data Element Name must be SM-RECORD.</p>	<p>Enter the proper values for the following:</p> <table border="1"> <thead> <tr> <th data-bbox="1081 576 1260 600">DATA ELEMENT</th> <th data-bbox="1323 576 1512 600">No. Characters</th> </tr> </thead> <tbody> <tr> <td>o Current Fiscal Year -</td> <td>xx</td> </tr> <tr> <td>o Prior Fiscal Year -</td> <td>xx</td> </tr> <tr> <td>o Prior Year Open -</td> <td>x</td> </tr> <tr> <td>o Current Fiscal Month -</td> <td>xx</td> </tr> <tr> <td>o Prior Fiscal Month -</td> <td>xx</td> </tr> <tr> <td>o Prior Month Open -</td> <td>x</td> </tr> </tbody> </table>	DATA ELEMENT	No. Characters	o Current Fiscal Year -	xx	o Prior Fiscal Year -	xx	o Prior Year Open -	x	o Current Fiscal Month -	xx	o Prior Fiscal Month -	xx	o Prior Month Open -	x	<p>This transaction initializes:</p> <ul style="list-style-type: none"> o TRANSACTION COUNTS - to zero; o TABLE/FILE COUNTS - to zero; o CURRENT PROCESSING CYCLE - to spaces; and o CURR-PRIOR-SEGMENT - to MM-VALUE-FIELD
DATA ELEMENT	No. Characters																
o Current Fiscal Year -	xx																
o Prior Fiscal Year -	xx																
o Prior Year Open -	x																
o Current Fiscal Month -	xx																
o Prior Fiscal Month -	xx																
o Prior Month Open -	x																
<p>If the INIT function is selected, it should be coded in columns 3-6.</p>	<p>Coding of the Data Element Name should begin in Column 10.</p>																
	<p>IF the CHANGE function is selected, enter one of the following:</p> <ul style="list-style-type: none"> o CFM-PFM - to change values in Current Fiscal Month and Prior Fiscal Month fields; o PFM-OPEN - to close the prior fiscal month; o CFY-PFY - to change values in Current Fiscal Year and Prior Fiscal Year fields; o PFY-OPEN - to close the prior fiscal year; o ANNUAL-CLOSE-IND - to change the value in Year End Close Indicator field; or o any valid two-character file prefix (eg. AP for Appropriation File). 	<p>If CFM-PFM, PFM-OPEN, CFY-PFY, PFY-OPEN, or ANNUAL-CLOSE-IND MM-VALUE must be different than the one currently existing in the system.</p> <p>If PFM-OPEN or PFY-OPEN is entered as the Data Element Name, enter an 'N' in column 31 to close the specified fiscal period.</p> <p>If the two-character file prefix is entered as the Data Element Name, enter the seven-digit output record count.</p>	<p>The field specified in the Data Element Name field will be changed to the value specified in the MM-Value Field.</p>														

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EXHIBIT III-4

SYSTEM MANAGEMENT FILE MAINTENANCE
ERROR CODES AND MESSAGES

<u>ERROR CODE</u>	<u>MESSAGE</u>
M01	SM-CFY NOT NUMERIC
M02	SM-PFY NOT NUMERIC
M03	INVALID CFY-PFY
M04	INVALID SM-CFM
M05	INVALID SM-PFM
M06	INVALID CFM-PFM
M07	INV SM-PFY-OPEN IND
M08	INV PFY-OPEN CHANGE
M09	INV SM-PFM-OPEN IND
M10	INV PFM-OPEN CHANGE
M11	INV MAINT OPERATOR
M12	INV ELEMENT NAME
M13	INV MM-VALUE FIELD
M14	INVALID RECORD COUNT
M15	INVALID CLOSE IND

SYSTEM MANAGEMENT FILE LISTING

CURRENT PRIOR SEGMENT										
CFY	PFY	PFY	OPEN	CFM	PFM	PFM	OPEN	ANNUAL	CLOSE	IND
89	88		Y	10	09		Y			

CURRENT PROCESSING				CYCLE SEGMENT			
CURRENT PROCESSING DATE				CURRENT PROCESSING TIME			
MM/DD/YY	09/15/87	MM	MM	(03:16)			
LAST UPDATE DATE				LAST UPDATE TIME			
MM/DD/YY	04/12/89	MM	MM	(02:52)			

TOTALS OF TRANSACTIONS												
IN		EC		MM								
	12		0		0							
IT	VALID	IT	INVAL	ACH	CCM	CTM	DAH	DTM	PCM	RTM	TDM	YEM
	12		0	0	0	0	0	0	0	0	0	0

SYSTEM MANAGEMENT FILE LISTING

TABLE FILE RECORD COUNTS				MASTER FILE RECORD COUNTS				MASTER FILE RECORD COUNTS			
INPUT	ADD	DELETE	OUT	INPUT	ADD	DELETE	OUT	INPUT	ADD	DELETE	OUT
** AC RECORD COUNTS **				** AD RECORD COUNTS **				** HW RECORD COUNTS **			
1000,103	0	0	1000,103	18	0	0	18	1002,181	0	0	1002,181
** CC RECORD COUNTS **				** AL RECORD COUNTS **				** AS RECORD COUNTS **			
1000,201	0	0	1000,201	18	0	0	18	53	0	0	18
** CT RECORD COUNTS **				** AP RECORD COUNTS **				** CD RECORD COUNTS **			
1000,314	0	0	1000,314	18	0	0	18	1002,600	0	0	1002,600
** DA RECORD COUNTS **				** CL RECORD COUNTS **				** CS RECORD COUNTS **			
1000,401	0	0	1000,401	243	0	0	243	0	0	0	53
** DT RECORD COUNTS **				** DF RECORD COUNTS **				** DS RECORD COUNTS **			
1000,509	0	0	1000,509	2	0	0	2	3	0	0	3
** PC RECORD COUNTS **				** ER RECORD COUNTS **				** ES RECORD COUNTS **			
1000,601	0	0	1000,601	17	0	0	17	1002,500	0	0	1002,500
** RT RECORD COUNTS **				** GL RECORD COUNTS **				** LS RECORD COUNTS **			
9,999	0	0	9,999	328	0	0	328	18	0	0	18
** TD RECORD COUNTS **				** OF RECORD COUNTS **				** MS RECORD COUNTS **			
1000,700	0	0	1000,700	59	0	0	59	0	0	0	0
** VE RECORD COUNTS **				** PF RECORD COUNTS **				** PS RECORD COUNTS **			
1000,802	0	0	1000,802	5	0	0	5	0	0	0	0
** DH RECORD COUNTS **				** SF RECORD COUNTS **				** QS RECORD COUNTS **			
0	0	0	0	0	0	0	0	0	0	0	0
** MH RECORD COUNTS **				** VF RECORD COUNTS **				** VS RECORD COUNTS **			
0	0	0	0	12	0	0	12	333	0	0	333
** YH RECORD COUNTS **				** VP RECORD COUNTS **							
1002,400	0	0	1002,400	6	0	0	6				

SYSTEM MANAGEMENT FILE LISTING - PAGE 2

EXHIBIT III-5

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ENTERING SYSTEM MANAGEMENT FILE MAINTENANCE TRANSACTIONS

The System Management File Maintenance/Inquiry Screen (illustrated in Exhibit III-6) can only be accessed through the master menu screen. The screen can be displayed by entering option '91' on the master menu and depressing the 'ENTER' key. This procedure clears the menu screen and displays the System Management File Maintenance Screen. Only central accounting personnel will have access to this screen.

Screen Format

The format of the System Management File Maintenance/Inquiry Screen is very similar to the format of the input coding form. The data elements contained on the screen (with the exception of the C/D FLAG) are defined in Exhibit III-2. The C/D FLAG is a one-character code used to specify the action to be performed against an existing SM-File maintenance transaction.

The valid values are:

- D - Delete the transaction
- C - Change the transaction

The C/D FLAG should only be entered if the function entered is M - Modify (described below).

Options

When the System Management File Maintenance/Inquiry Screen is accessed, the cursor will appear on the top line of the screen beside 'ENTER FUNCTION'. One of the four functions displayed on the screen must be selected. These four functions are:

- ADD - which will enable the user to add SM-File maintenance transactions to the daily input file;

- CLEAR SCREEN - which will enable the user to clear the screen of all transactions displayed;
- MODIFY - which will enable the user to modify a previously entered SM-File maintenance transaction; and
- RECALL - which will enable the user to display up to fourteen SM-File maintenance transactions that have previously been entered.

It should be noted that these are data entry functions that tell the system what action is to be taken to ADD, MODIFY, or RECALL SM-File maintenance transactions. These are distinguished from the functions which are used internally by FAMIS to determine how the SM-File maintenance transactions are to be applied to the SM-File itself.

Procedures To Add An SM-File Transaction

Once the system management file maintenance screen has been displayed, SM-File maintenance transactions may be added to the input file by selecting Function 'A' - ADD. The 'ADD' function will be the most frequently selected function. When the 'A' is entered, the cursor will move to the body of the screen and prompt for entry of the first transaction. SM-File maintenance transactions may then be keyed directly from the coding form.

The CHANGE/DELETE flag is not required when adding transactions to the input file. This field may be skipped by depressing the 'TAB' key or space bar. The cursor will then prompt for entry of the maintenance operator. Entry of the appropriate data elements will then cause the cursor to move to the 'DATA ELEMENT NAME' column. Again, the data element name (e.g., SM-RECORD, PFM-OPEN, etc.) can be entered directly from the coding form. Inasmuch as the data element name will normally be less than twenty positions, the blank positions may be skipped by depressing the 'TAB' key. This will cause the cursor to skip to the next column and prompt for entry of the MM-VALUE-FIELD. Once the complete maintenance transaction has been

entered, the 'TAB' key can be depressed to move the cursor to the next line, if necessary.

The procedures described above can be repeated for each additional transaction. Up to fourteen SM-File maintenance transactions may be entered on the screen at a single time. When the screen is full or all transactions have been keyed, the data entered may be edited and saved by depressing the 'ENTER' key. The procedures to add an SM-File maintenance transaction once the screen is displayed are summarized as follows:

- 1 - Enter Function 'A'.
- 2 - Tab or space through the column entitled 'C/D FLAG'.
- 3 - Enter the maintenance operator from the coding form.
- 4 - Enter the appropriate data element name (remaining spaces may be skipped by depressing the 'TAB' key).
- 5 - Enter the MM-VALUE-FIELD (remaining spaces may be skipped by depressing the 'TAB' key).
- 6 - When all transactions have been entered or the screen is full, depress the 'ENTER' key.

When the 'ENTER' key is depressed, the SM-File maintenance transactions are subjected to a series of edits. Valid transactions are removed from the screen, placed on the error correction input file, and the message 'VALID TRANSACTIONS SAVED' is displayed at the bottom of the screen. If errors are detected on the maintenance transactions, the erroneous field is highlighted and the appropriate error message is displayed at the bottom of the screen.

Procedures To Recall An SM-File Maintenance Transaction

During the day, it may be necessary to review SM-File maintenance transactions that have already been keyed. This can be accomplished by selecting Function 'R' - RECALL displayed on the top of the screen. This

function will enable the user to display the SM-File maintenance transactions on the input file.

Selection of Function 'R' will cause the cursor to move to the column titled 'C/D FLAG'. Since no other data elements need be entered to recall previously entered SM-File maintenance transactions, the 'ENTER' key should be depressed. When the 'ENTER' key is depressed, the system will find and display up to fourteen SM-File maintenance transactions on a single screen.

Once the transactions have been displayed, the cursor will return to the top of the screen and prompt for entry of another function. If the user desires to modify one of the transactions displayed, then Option 'M' should be entered. Procedures for modifying existing SM-File maintenance transactions are described below. Otherwise, a 'C' should be entered to clear the screen. The cursor will then prompt for entry of another function. These procedures are summarized as follows:

- 1 - Enter Function 'R'.
- 2 - Depress the 'ENTER' key.
- 3 - Enter either Function 'M' to modify one of the transactions displayed or Function 'C' to clear the screen.

The user may then select any of the other data entry options.

Procedures To Modify An SM-File Maintenance Transaction

Previously entered SM-File maintenance transactions may need to be modified or even deleted from the input file. This can be accomplished by selecting Function 'M' from the online screen. Since modifications can only be made to transactions displayed on the screen, this function can only be exercised after the 'RECALL' function.

When Function 'M' is entered, the cursor will move to the first line of the screen. The user may then move the cursor down the column titled 'C/D FLAG' to the maintenance transaction to be modified. If the maintenance

transaction is to be deleted, a 'D' should be entered in the 'C/D FLAG' column next to that transaction. If no modifications are required to other transactions, the 'ENTER' key should be depressed. The flagged transactions will be deleted and the cursor will appear at the top of the screen prompting for entry of another function.

If it is desired to change one or more of the SM-File maintenance transactions displayed, then a 'C' should be entered in the 'C/D FLAG' column. The user can then 'TAB' to the desired field and make the appropriate change.

Once the 'RECALL' function has been exercised and maintenance transactions are displayed on the screen, the procedures to modify a transaction are summarized as follows:

- 1 - Enter Function 'M'.
- 2 - Move the cursor down the 'C/D FLAG' column to the transaction to be modified.
- 3 - Enter a 'D' if the transaction is to be deleted or a 'C' if it is to be changed.
- 4 - If a 'C' is entered in Step 3, make the appropriate change.
- 5 - When all of the desired modifications have been entered, depress the 'ENTER' key.

Error Messages

The SM-File maintenance transactions will be subjected to a number of edits before they are accepted by the system. These edits will be performed when the 'ENTER' key is depressed. Valid transactions will be accepted and invalid transactions will be displayed on the screen with the invalid fields highlighted. Additionally, an error message will be shown at the bottom of the screen. The various error messages and their meaning are identified in Exhibit III-7.

EXHIBIT III-7

SM-FILE MAINTENANCE SCREEN

ERROR MESSAGES

<u>ERROR MESSAGE</u>	<u>DESCRIPTION</u>
'INVALID MAINT OPERATOR'	The operator has entered an invalid maintenance operator. Valid values are 'INIT' and 'CHANGE'.
'INVALID ELEMENT NAME'	The operator has entered an invalid data element. Valid values are 'SM-RECORD' (FOR INIT ONLY), 'CFM-PFM', 'PFM-OPEN', 'CFY-PFY', 'PFY-OPEN', 'ANNUAL-CLOSE-IND', 'AC', 'CC', 'CT', 'DA', 'DT', 'PC', 'RT', 'TD', 'VE', 'AD', 'AL', 'AP', 'CL', 'DF', 'ER', 'GL', 'OF', 'PF', 'SF', 'VF', 'VP', 'WW', 'DH', 'MH', 'YH', 'AS', 'CD', 'CS', 'DS', 'ES', 'LS', 'MS', 'PS', 'QS', 'VS'.
'SM-CFY NOT NUMERIC'	The operator has entered a non-numeric value for CFY.
'SM-PFY NOT NUMERIC'	The operator has entered a non-numeric value for PFY.
'INV SM-PFY-OPEN IND' 'INV PFY-OPEN CHANGE'	The operator has entered an invalid PFY-OPEN-IND. Valid values are 'Y' and 'N'. If it is currently 'Y' then the value entered must be 'N' and vice versa.
'INVALID CFM'	The operator has entered an invalid CFM. Valid values are '01' through '12'.
'INVALID PFM'	The operator has entered an invalid PFM. Valid values are '01' through '12'.
'INV SM-PFM-OPEN IND' 'INV-PFM-OPEN CHANGE'	The operator has entered an invalid PFM-OPEN-IND. Valid values are 'Y' and 'N'. If it is currently 'Y' then the value entered must be 'N' and vice versa.
'INVALID CFM-PFM'	The operator has entered an invalid CFM or PFM. The difference between the CFM and PFM must always be 1.

EXHIBIT III-7

SM-FILE MAINTENANCE SCREEN

ERROR MESSAGES

<u>ERROR MESSAGE</u>	<u>DESCRIPTION</u>
'INVALID CFY-PFY'	The operator has entered an invalid CFY or PFY. The difference between the CFY and PFY must always be 1.
'INV MM-VALUE FIELD'	The operator has entered an invalid MM-VALUE field length with a valid element name.
'INVALID RECORD COUNT'	The operator has entered an invalid value in the MM-VALUE field. Positions 1 through 7 of the MM-VALUE field must be numeric.
'INVALID CLOSE IND'	The operator has entered an invalid annual close indicator. Valid values are 'C', 'M', and '\$'. Additionally, the annual close indicator must be of a different value than is currently contained in the system (i.e., if it is currently 'C", then the value entered must be 'M' or '\$', etc.)
'INVALID FUNCTION ENTERED..... PLEASE REENTER'	The operator has entered an invalid Function. Valid values are 'A', 'C', 'M', 'R' and 'N'.
'INVALID PA-KEY SELECTED..... PLEASE REENTER'	The operator has depressed an invalid PA-key.
'INVALID PF-KEY SELECTED..... PLEASE REENTER'	The operator has depressed an invalid PF-key.
'THE MBPIN FILE HAS NOT BEEN OPENED....PLEASE CONTACT EDPD'	The SM-Maintenance transaction file is closed and the transaction(s) could not be written.
'THE MBPSM FILE IS NOT OPEN.... PLEASE CONTACT EDPD'	An attempt was made to access the on-line SM-File to edit the maintenance transaction(s) and it is closed.
'INVALID DATA ENTERED FOR RECALL.....RECORD NOT FOUND. PLEASE CORRECT AND REENTER'	The operator has entered invalid data in the Maintenance Operator field. The error must be corrected and the operator must depress the 'ENTER' key again.