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7. Abstract The K Basins Materials Accounting (MAC) programs had some improvements made to it to change slightly the access authorized users had to the modification of critical data. This ATP describes how the code was to be tested to verify its correctness.		
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K BASINS
DATABASE SYSTEMS

M A C

Materials Accounting Database

Mini Acceptance Test Procedures

Software Version 3.3

Vern K. Russell

James E. Mullaney

WESTINGHOUSE HANFORD COMPANY
INFORMATION RESOURCE MANAGEMENT

April 4, 1994

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1.0 INTRODUCTION

1.1 Purpose

- Present the steps needed to perform an Acceptance Test on MAC Version 3.3.
- Provide an introduction and tutorial for the new database structure embodied in this MAC release.

1.2 Scope

This document addresses primarily the use of the new functions and a revised data structure associated with the encapsulation process, as specified in Change Request No. 14, initiated 04/06/92 and some code cleanup changes as specified in Change Request No. 19, initiated in March 1994.

1.3 Background

When the Materials Accounting database (MAC) was converted from a Data General minicomputer to its current Paradox microcomputer version, the data structure was carried over virtually intact.

Since the conversion in 1990, the "Micro-MAC" has been enhanced thru a series of change requests, with only minor adjustments of the data structure.

The upcoming encapsulation campaign requirements have mandated a "canister oriented" data structure, an encapsulation function, and a daily reporting capability. The new data structure simplifies certain operations, such as moving a canister from one cubicle to another. In the former structure, it was necessary to gather all the contents records and move them; now this is accomplished by simply changing the canister location in a "Location vs Canister Number" table. The canister contents remain in a new "Material" table keyed by canister number.

Since many of the current database canisters do not have the required unique can numbers, they have been assigned temporary pseudo numbers. In most cases, the pseudo canister numbers are an adaptation of the Fuel Canister Location. For example, the material in location E1234 received a temporary can number of 1234E. The temporary numbers will, of course, all be changed as the encapsulation campaign progresses.

2.0 ACCEPTANCE TEST PLAN

This document constitutes the acceptance test plan for the MAC Version 3.3 software.

Test location: Bldg. MO102, room 1, 100K Area

Computer: The PC assigned to Karen Morris

Disk space: the g:\new directory of server WHC146\MAC

Participants will consist of the following:

Test Performer

Test Witness

IRM Analyst

The Test Performer will execute the test procedures as defined in this document.

The Test Witness will witness each test and sign the appropriate test execution and exception logs together with the Test Performer.

The IRM analyst will serve as advisor on the new functions and assist with verbiage on the execution / exception logs as required. He will also write a test summary report and schedule and assist in scheduling a follow-on ATP if needed.

3.0 ACCEPTANCE CRITERIA

Software Version 3.3 functions must perform as defined in the Acceptance Test Procedures to follow. Previous Acceptance Tests (References 1 thru 4), will serve as acceptance criteria for functions not covered by this document.

4.0 ACCEPTANCE TEST PROCEDURES

4.1 General

The test will require modifying the MAC data and therefore will be run on the g:\new subdirectory.

Upon satisfactory completion of the test, including software revisions if any, the unmodified data will be reloaded to the production directory and software version 3.3 will be installed.

Test sequence will be as follows:

- (1) Help functions. These will be exercised to acquaint the tester with the new data structures and to verify the response of the Help screens.
- (2) Update / Encapsulate. This function is the primary addition to the MAC code.
- (3) Reports. Generation of sample copies of all reports will be necessary to verify the new data structure and to check the encapsulation results.

4.2 Procedure Format

The MAC system is menu-driven. Upon entry, the user is presented with a "popup" menu, with instructions at the top of the screen. Most of the time, the instructions are simply:

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection, using the cursor movement keys.

For example, refer to the main menu, Figure 1. If one chooses Update, then the next menu seen will be Figure 2, which presents all of the Update options.

In some of the options, the user is led to view and/or modify a table, in which case the instructions at the top of the screen will be specifically tailored to the option at hand.

In this document, the symbol:

↵

will signify pressing the <Enter> key.

4.3 Startup

After a normal entry to MAC, select the GoParadox option

Type T then M then D (Tools/More/Directory)

Erase the directory, then type g:\new ↵

Type O (for OK) in response to prompt

OBSERVE a PARADOX main menu

To begin the mini-ATP:

(a) Type S

(b) Press ↵

(c) Type XMAC ↵

OBSERVE a normal MAC startup, with the directory message g:\new blinking in the upper portion of the popup menu.

RECORD results in the test execution log.

4.4 Help Functions

These functions do not modify the data. They simply display various views of the data. The format and contents of the screen displays are somewhat different than in previous versions of the MAC system, due to changes in the data structure and addition of the encapsulation functions.

4.4.1 Help / All

Starting from the Main menu (Figure 1) PRESS H.

At the Help menu (Figure 2) PRESS A.

OBSERVE that the three (3) tables: Location, Canister, and Material are displayed (Figure 13). OBSERVE that the cursor is positioned in the Location table.

NOTE: The three tables are linked by canister number. The canister number which is shown for the Location table also pertains to the other two tables, even though the number is not shown beside the canister or material tables.

PRESS the F4 key twice. OBSERVE that the cursor moves to the Material table.

PRESS the F3 key twice. OBSERVE that the cursor returns to the Location table.

PRESS the <PgDn> key about 20 times. OBSERVE that the Canister and Material tables scroll with the Location table. OBSERVE that some canisters have only one line in the Material table but that many have several lines of contents (different fuel model types).

PRESS the <Home> and <End> keys and OBSERVE that the beginning and the end of the three tables (linked by canister number) are displayed.

SEARCH for a canister number or location by following the instructions at the top of the screen. Remember to position the cursor in the desired target field before pressing the F1 key for a search.

PRESS <Esc> key when finished.

RECORD results in test execution log.

4.4.2 Help / Daily

Starting from the Main menu (Figure 1), PRESS H.

At the Help menu (Figure 2), PRESS D.

This function displays (see example, Figure 11) the "Daily" table which records daily encapsulation operations. Daily encapsulation reports are generated from this table.

OBSERVE the daily screen and note the three material categories displayed:

- (1) Before Encapsulation
- (2) Loose Material Encapsulation
- (3) Stuck Material

PRESS the <PgDn> key a few times and OBSERVE that each screen contains the complete encapsulation information for a particular canister.

OBSERVE that the Database Operator and Seq # are given for each encapsulation.

PRESS the <End> and <Home> keys and OBSERVE the beginning and end of the "daily" table.

PRESS <Esc> key to return

RECORD results in test execution log.

4.4.3 Help / Location

Starting from the Main menu (Figure 1), PRESS H.

At the Help menu (Figure 2), PRESS L.

OBSERVE the Location table (example: Figure 14).

PRESS <Esc> key to return.

RECORD results in test execution log.

4.4.4 Help / Canister

Starting from the Main menu (Figure 1), PRESS H.

At the Help menu (Figure 2), PRESS C.

OBSERVE the Canister table (example: Figure 15).

PRESS <Esc> key to return.

RECORD results in test execution log.

4.4.5 Help / Material

Starting from the Main menu (Figure 1), PRESS H.

At the Help menu (Figure 2), PRESS M.

OBSERVE the Material table (example: Figure 16).

PRESS <Esc> key to return.

RECORD results in test execution log.

4.4.6 Help / History

Starting from the Main menu (Figure 1), PRESS H.

At the Help menu (Figure 2), PRESS H.

OBSERVE the History table (example: Figure 17) and NOTICE:

- (1) The data revision number at the top is normally the current revision, but other revisions (if present in the history table) can be viewed by pressing <PgUp> or <PgDn> keys.
- (2) The three tables (HIST-LOC, HIST-CAN, and HIST-MAT) shown can be scrolled or searched individually, by following the directions at the top of screen. These tables are not linked to one another.
- (3) Each transaction has a sequence identifier consisting of a sequence number and database operator.
- (4) In each table, revision type, date, and previous condition are given.

PRESS <Esc> key to return.

RECORD results in test execution log.

4.5 Update / Encapsulate

NOTE: It would be helpful to have a copy of a recent Compact Map report in hand before beginning this part of the Acceptance Test.

4.5.1 Partially Stuck Canister

Starting from the Main menu (Figure 1), PRESS U.

At the Update menu (Figure 3), PRESS E or .

OBSERVE the beginning of the Encapsulation Input table (example: Figure 18).

NOTE: Please select a canister which contains at least two (2) records. The reason for this is that you will need to decide which pieces are "Stuck" and which are "Loose".

FILL By canister or location (C/L)

FILL Enter canister location (or can #)

OBSERVE "OK!" signal or "Error Empty" message.

OBSERVE display of canister number or location if "OK!".

FILL Date encapsulated

FILL Is this a stuck can? (A/P/N) P

FILL Entries OK thus far? (Y/N) Y

NOTE: If you enter N, all of the above entries will be erased, so that you can start over.

NOTE: The next block of input pertains to "loose" material. It will not be requested if the canister was "All" stuck. It will be requested if the canister was "Partially" stuck or "Not" stuck.

FILL Enter loose material can no.

NOTE: The system will not permit you to proceed until a unique canister number is entered. If your proposed can # is not unique, you will be encouraged to add a suffix (X, Y, or Z) to the number.

FILL Enter canister destination

NOTE: This is the destination of the repackaged "loose" material. The specific "loose" contents will be defined on the next screen. System will not permit you to proceed until you select an empty cubicle.

FILL Enter purged weight _____ ↵

FILL Enter net weight _____ ↵

FILL Loose entries OK? Y ↵

NOTE: If you enter N to the above question, the "loose" entries will be erased, and you get to re-enter them. In general, a blank entry aborts the entire input.

NOTE: At the bottom of the encapsulation input block, a note will appear as follows:

Stuck material canister number is -> nnnnS

where: nnnn is a sequential number issued by the MAC system

PRESS <Print Screen>

OBSERVE the Encapsulation Distribution Table (Figure 19) which appears upon successful completion of the encapsulation input table for a "Partially" stuck can.

MOVE CURSOR, using the up / down arrows to one or more "Loose" material lines and PRESS the <Delete> key.

OBSERVE that the designation changes from "Stuck" to "Loose".

MOVE CURSOR to a "Loose" line and press the <Insert> key.

OBSERVE that the designation changes from "Loose" to "Stuck".

FINALIZE the "Loose" and "Stuck" designations.

PRESS <Print Screen>

PRESS <F2> to process the data.

CHECK the results Using Help / All (Ref. Figure 13):

- (1) Verify that the stuck can (with number nnnS) returned to its original location.

- (2) Verify that the loose can with new number is stored in the specified location.
- (3) Verify the purged and net weights for the loose material using the Canister table.
- (4) Verify the distribution of the "Stuck" and "Loose" materials, using the Material table.

RECORD results in the test execution log.

4.5.2 Stuck Canister

Starting from the Main menu (Figure 1), PRESS U.

At the Update menu (Figure 3), PRESS E or .

OBSERVE the beginning of the Encapsulation Input table (example: Figure 18).

FILL By canister or location (C/L)

FILL Enter canister location (or can #)

OBSERVE "OK!" signal or "Error Empty" message.

OBSERVE display of canister number or location if "OK!".

FILL Date encapsulated

FILL Is this a stuck can? (A/P/N) A

FILL Entries OK thus far? (Y/N) Y

NOTE: A new stuck canister number will be issued and shown at the bottom of the encapsulation input table.

PRESS <Print Screen>

NOTE: Since this can is totally stuck, you will not be shown an encapsulation distribution table. However, a table will be displayed, showing the contents of the stuck canister.

PRESS <Print Screen>

CHECK the results Using Help / All (Ref. Figure 13):

- (1) Verify that the stuck can (with number nnnS) returned to its original location.

RECORD results in the test execution log.

4.5.3 Normal Canister

Starting from the Main menu (Figure 1), PRESS U.

At the Update menu (Figure 3), PRESS E or .

OBSERVE the beginning of the Encapsulation Input table (example: Figure 18).

FILL By canister or location (C/L)

FILL Enter canister location (or can #)

OBSERVE "OK!" signal or "Error Empty" message.

OBSERVE display of canister number or location if "OK!".

FILL Date encapsulated

FILL Is this a stuck can? (A/P/N) N

FILL Entries OK thus far? (Y/N) Y

NOTE: If you enter N, all of the above entries will be erased, so that you can start over.

NOTE: The next block of input pertains to "loose" material.

FILL Enter loose material can no.

NOTE: The system will not permit you to proceed until a unique canister number is entered. If your proposed can # is not unique, you will be encouraged to add a suffix (X, Y, or Z) to the number.

FILL Enter canister destination

NOTE: This is the destination of the repackaged "loose" material. The specific "loose" contents will be defined on the next screen. System will not permit you to proceed until you select an empty cubicle.

FILL Enter purged weight

FILL Enter net weight

FILL Loose entries OK? Y

OBSERVE A table will be displayed, showing the contents of the canister. This table may be edited.

PRESS <Print Screen>

CHECK the results Using **Help / All** (Ref. Figure 13):

- (1) Verify that the canister (with assigned number) appears in its designated location (Location Table).
- (2) Verify Purged and net weights in the Canister table.
- (3) Verify canister contents in the Material table.

RECORD results in the test execution log.

4.6 Reports

4.6.1 Daily Encapsulation Report

The reasons for creating this report are to provide additional verification of the of the encapsulation moves of section 4.5 and to check the report format.

4.6.1.1 Daily Report Creation

The Daily Encapsulation report is a new addition to the system. As with all other reports, creation consists of several steps:

- (1) SELECT "Report" from the main menu (Figure 1).
- (2) SELECT the appropriate report name, in this case "Daily", from the report menu (Figure 4).
- (3) SELECT a Date range from the report range menu (Figure 10), which will include the date(s) entered above in section 4.5.

4.6.1.2 Print Daily Report

Print the Daily Encapsulation by executing the following:

- (1) SELECT "Print" from the main menu (Figure 1).
- (2) SELECT "Daily" from the print menu (Figure 5).
- (3) SELECT "Lpt1" from the print device menu (Figure 8).

4.6.1.3 Verify Daily Report

Compare the entries in the daily report with the screens copied while executing section 4.5.

OBSERVE the sequence number / Operator flags in the upper right corner of each entry.

NOTE: The material contents in the three categories: BEFORE ENCAPSULATION, AFTER ENCAPSULATION, and STUCK CANISTER should correspond with the choices made in section 4.5 (Refer to Tables 18 and 19 and the corresponding PRINT SCREEN copies created in section 4.5).

RECORD results in the test execution log.

4.6.2 Other Reports

Since the data structure has been changed, the internal code maneuvers required to produce the reports has necessarily been modified. Therefore the acceptance test must include at least a cursory check of all reports normally used in MAC K-Basin operations.

4.6.2.1 Report Menu Instructions

Menu instructions for the reports are as follows:

<u>Report Name</u>	<u>Menu Selection (Figure 4)</u>
Storage & Bucket Summary	StoBucSum (S)
Key File Summary	KeyFileSum (K)
Basin Map	Map (M)
History (1)	History (H)
Worksheets (2)	Worksheets (W)
Canister (3)	Canister (C)
Compact Basin Map	Compact (C)
Unpackaged Report	Unpackage (U)
Empty Cubicle Report	Empty (E)

NOTES:

- (1) The History selection sends the user to the History menu (Figure 9), for selection of which history table to report:
 - (a) Location
 - (b) Canister
 - (c) Material
- (2) Similarly, the Worksheets selection invokes the Worksheets sub-menu (Figure 7) which presents the following options:
 - (a) Shipping
 - (b) Packaging
- (3) The Canister report is new with version 3.3 of the MAC system. It essentially summarizes the canister weight information.

4.6.2.2 Report Test Procedure

- (1) SELECT "Report" from the main menu (Figure 1).
- (2) SELECT the appropriate report name from the report menu (Figure 4).
- (3) SELECT appropriate report range from the report range menu (Figure 10).

PRINT all of the "Other" reports. NOTE: Printing reports uses essentially the same menu steps as creating them, except that "Print" is selected from the main menu (Figure 1) instead of "Report".

VERIFY each report based on details of the last month's reporting cycle, where applicable.

VERIFY the new "Canister" report based on the weight and packaging entries made during execution of section 4.5.

RECORD results in the test execution log.

7.0 REFERENCES

- (1) Russell, V.K. and Mullaney, J.E., "MAC Database Acceptance Test Procedures", WHC-SD-NR-CSWD-045, Westinghouse Hanford Company, May 31, 1990.
- (2) Mullaney, J.E., "MICRO-MAC Acceptance Test Summary Report", Westinghouse Hanford Company, July 12, 1990.
- (3) Mullaney, J.E. "MAC Database Mini Acceptance Test Procedures for Software Version 2.3, Westinghouse Hanford Company, June 14, 1991.
- (4) Mullaney, J.E., "MICRO-MAC Acceptance Test Summary Report (Version 2.3)", Westinghouse Hanford Company, August 30, 1991.

8.0 APPENDIX A

This APPENDIX contains all the Figures referenced in the text of this document. It is recommended that these pages be extracted and kept near the Acceptance Test Operator during the test.

8.1 List of Figures

<u>Figure</u>	<u>Contents</u>
1	Main Menu
2	Help Menu
3	Update Menu
4	Report Menu
5	Print Menu
6	Basin Menu
7	Worksheets Menu
8	Print Device Menu
9	History Menu
10	Report Range Menu
11	Daily Table
12	Factor Table
13	All (Location, Canister, Material) Tables
14	Location Table
15	Canister Table
16	Material Table
17	History Table
18	Encapsulation Input Screen Example
19	Encapsulation Distribution Table

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: macmain Directory: G:\NEW\MAC\	
CHOOSE:	
Update	Perform material changes and/or relocations
Report	Generate materials accounting reports, worksheets, etc
Print	Print files previously created with Report
Help	View History, Material, Location, etc files
Xport	Export daily encapsulation report
OpenRev	Open current data revision number for further updates
CloseRev	Close the current data revision number
FileLoad	Load (restore) one or more files from backup device
Executive	Add, delete, or change the list of valid users
Backup	Copy database tables, program library to backup device
GoParadox	Go to Paradox
Applications	Paradox Application Programs Menu
Quit	Leave Paradox and return to DOS

Figure 1, Mac Main Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: machelp Directory: G:\NEW\MAC\	
CHOOSE:	
Daily	Daily Encapsulation Table
History	History of Location/Canister/Material data changes
All	Location, Canister, & Material Tables
Location	Locations of Canisters
Canister	Canister Parameters: Gross Wt, Net Wt, Pkg Flag
Material	Display Canister Contents
Factor	Factor table: factor weights, fuel model types
Return	Return to Micro-MAC main menu
Leave	Leave Paradox and return to DOS
ZDOS	Shell out to DOS. Type exit, then <CR> to return

Figure 2, MAC Help Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

<div>CHOOSE:</div> <div>Encapsulate</div> <div>BasinToBasin</div> <div>InBasin</div> <div>Add</div> <div>Delete</div> <div>Package</div> <div>Change</div> <div>Return</div> <div>Leave</div> <div>ZDOS</div>	<div>Menu: macreate Directory: G:\NEW\MAC\</div> <div>Encapsulation campaign procedures</div> <div>Move (transfer) cubicle contents between basins</div> <div>Move (transfer) cubicle contents within a basin</div> <div>Add new material to a canister</div> <div>Delete material from a canister</div> <div>Change can. serial #, can. weight, net weight, pkg flag</div> <div>Change the contents of a canister</div> <div>Return to Micro-MAC main menu</div> <div>Leave Paradox and return to DOS</div> <div>Shell out to DOS. Type exit, then <CR> to return</div>
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Figure 3, MAC Update Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

<div>CHOOSE:</div> <div>Daily</div> <div>Compact</div> <div>WorkSheets</div> <div>History</div> <div>Map</div> <div>KeyFileSum</div> <div>StoBucSum</div> <div>Package</div> <div>Empty</div> <div>Unpack</div> <div>Return</div> <div>Leave</div> <div>ZDOS</div>	<div>Menu: macreprt Directory: G:\NEW\MAC\</div> <div>Daily Encapsulation Report</div> <div>Compacted Cubicle Map</div> <div>Work Sheets for Shipping Material, etc</div> <div>History: Material Moves, Additions, Deletions, Changes</div> <div>Basin Storage Map</div> <div>Key File Summary Report</div> <div>Storage and Bucket Summary Report</div> <div>Canister no., location, weights, key date, pkg flag</div> <div>Report showing empty cubicles</div> <div>Unpackaged Materials Report</div> <div>Return to Micro-MAC main menu</div> <div>Leave Paradox and return to DOS</div> <div>Shell out to DOS. Type exit, then <CR> to return</div>
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Figure 4, MAC Report Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: macprint Directory: G:\NEW\MAC\	
CHOOSE:	
Daily	Daily Encapsulation Report
Compact	Compacted Cubicle Map
WorkSheets	Work Sheets for Shipping Material, etc
History	History: Material Moves, Additions, Deletions, Changes
Map	Basin Storage Map
KeyFileSum	Key File Summary Report
StoBucSum	Storage and Bucket Summary Report
Package	Canister no., location, weights, key date, pkg flag
Empty	Report showing empty cubicles
Unpack	Unpackaged Materials Report
Return	Return to Micro-MAC main menu
Leave	Leave Paradox and return to DOS
ZDOS	Shell out to DOS. Type exit, then <CR> to return

Figure 5, MAC Print Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: macbasin Directory: G:\NEW\MAC\	
CHOOSE:	
East Basin	K area East material storage basin
West Basin	K area West material storage basin
Return	Return to Micro-MAC main menu
Leave	Leave Paradox and return to DOS
ZDOS	Shell out to DOS. Type exit, then <CR> to return

Figure 6, MAC Basin Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: macwork Directory: G:\NEW\MAC\	
CHOOSE:	
Shipping	Shipping worksheets
Packaging	Packaging worksheets
Return	Return to Micro-MAC main menu
Leave	Leave Paradox and return to DOS
ZDOS	Shell out to DOS. Type exit, then <CR> to return

Figure 7, MAC Worksheets Report Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

Menu: mac1pt Directory: G:\NEW\MAC\	
CHOOSE:	
1-LPT1	Usually the printer connected to your computer
2-LPT2	Usually an HP Laser printer on HLAN
3-LPT3	Alternate Printer
Return	Return to Micro-MAC main menu
Leave	Leave Paradox and return to DOS
ZDOS	Shell out to DOS. Type exit, then <CR> to return

Figure 8, MAC Print Device Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

<div>CHOOSE:</div> <div>Location</div> <div>Canister</div> <div>Material</div> <div>Return</div> <div>Leave</div> <div>ZDOS</div>	<div>Menu: machist Directory: G:\NEW\MAC\</div> <div>History of Canister Locations</div> <div>History of Canister Gross & Net Weight, Packaging Flag</div> <div>History of Canister Material Contents</div> <div>Return to Micro-MAC main menu</div> <div>Leave Paradox and return to DOS</div> <div>Shell out to DOS. Type exit, then <CR> to return</div>
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Figure 9, MAC History Menu

To select, Press first character or <Enter>. To see explanation, highlight the appropriate selection using the cursor movement keys.

<div>CHOOSE:</div> <div>Full</div> <div>Pages</div> <div>Key Dates</div> <div>Dates</div> <div>Return</div> <div>Leave</div> <div>ZDOS</div>	<div>Menu: macrange Directory: G:\NEW\MAC\</div> <div>Full Report</div> <div>Report limited to a specified range of page numbers</div> <div>For SBS, Basin Maps, Worksheets, Key File Summary</div> <div>Range of action dates. For encapsulation, history</div> <div>Return to Micro-MAC main menu</div> <div>Leave Paradox and return to DOS</div> <div>Shell out to DOS. Type exit, then <CR> to return</div>
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Figure 10, MAC Report Range Menu

F1 (Search), Note: To search, use F1, but move to field, using arrows
 Enter (Return), Esc (Abort), PgUp, PgDn, Home(Top), End(Bottom)

Encaps.		Before Encapsulation										Database
Date	Can #	Loc	PGwt/Nwt	C	O	N	T	E	N	T	S	Operator/Seq #
4/19/93	4569	W0805	654	3858	BC	7	0	0	0			KR MORRIS
			0	3858	BE	7	0	0	0			0008
		Loose Material Encapsulation										
	0000	W0103	500	3858	BE	7	0		0		0	
			480									
		Stuck Material										
	0009S	W0805		3858	BC	7	0		0		0	

Figure 11, Daily Table

F1 (Search), Note: To search, use F1, but move to field, using arrows
 Enter (Return), Esc (Abort), PgUp, PgDn, Home(Top), End(Bottom)

Factor Table										SCATS
FUEL MODEL TYPE		Enrichment		Length	W E I G H T S (Lbs)					Model
Short	Long	Outer	Inner	Inches	Outer	Inner	Assembly		Type	
7A	B07X07A	0.711	0.711	23.2	31.12	14.64	45.76			B7A
7C	B07X07C	0.711	0.711	17.0	23.19	10.91	34.1			B7C
7E	B07X07E	0.711	0.711	26.0	35.1	16.5	51.6			B7E
AA	A09N09A	0.947	0.947	23.2	27.21	13.59	40.8			A9A
AB	A07N07B	0.711	0.711	20.0	24.01	11.99	36			A9B
AC	A09N09C	0.947	0.947	17.4	20.29	10.13	30.42			A9C
AD	A09N09D	0.947	0.947	11.6	13.35	6.65	20			A9D
AE	A12N09E	1.250	0.947	26.0	30.68	15.34	46.02			A2E
AF	A12N09F	1.250	0.947	15.0	17.39	8.6	25.99			A2F
AM	A12N09M	1.250	0.947	21.0	24.56	12.16	36.72			A2M
AP	A09N09P	0.947	0.947	19.0	22.18	11.07	33.25			A9P
AT	A12N09T	1.250	0.947	19.5	22.99	11.38	34.37			A2T
BA	B09X09A	0.947	0.947	23.0	31.12	14.64	45.76			BXA
BC	B09X09C	0.947	0.947	17.0	23.19	10.91	34.1			BXC

Figure 12, Factor Table

F1 (Search), F3(Up Table), F4(Down Table) PgUp, PgDn, Home(Top), End(Bottom)
 Esc (Return) Note: To search, use F1, but move to field, using F3, F4, arrows

L O C A T I O N		C A N I S T E R		
Can #	Location	Purged Wt	Net Wt	Pkg
9170	W5839	725	0	P

Key	FMT	MWD's	Assemblies	Outers	Inners	Pieces
3524	BC	25.82	1	0	0	0
3524	BE	797.43	13	0	0	0

Figure 13, All Table

F1 (Search), Note: To search, use F1, but move to field, using arrows
 Enter (Return), Esc (Abort), PgUp, PgDn, Home(Top), End(Bottom)

Location Table	
Can #	Location
0005	W0554
0006	W1225
0007	W0567
0008	W1212
0010	W1221
0022	W0559
0030	W0442
0032	W2328
0034	W5507
0035	W0564
0038	W1117
0039	W1115
0040	W0558
0042	W0561
0044	W1116
0056	W1214
0057	W0733

Figure 14, Location Table

F1 (Search), Note: To search, use F1, but move to field, using arrows
Enter (Return), Esc (Abort), PgUp, PgDn, Home(Top), End(Bottom)

C A N I S T E R			
Can #	Purged Wt	Net Wt	Pkg
0056	574	0	P
0057	569	0	P
0059	577	0	P
0060	572	0	P
0063	574	0	P
0064	574	0	P
0065	566	0	P
0066	575	0	P
0069	575	0	P
0071	576	0	P
0072	576	0	P
0073	574	0	P
0074	566	0	P
0076	777	0	P
0077	577	0	P
0078	567	0	P

Figure 15, Canister Table

F1 (Search), Note: To search, use F1, but move to field, using arrows
Enter (Return), Esc (Abort), PgUp, PgDn, Home(Top), End(Bottom)

M A T E R I A L T A B L E							
Can #	Key	FMT	MWD's	Assemblies	Outers	Inners	Pieces
9160	3524	BE	613.41	10	0	0	0
9162	3524	BC	129.09	5	0	0	0
9162	3524	BE	552.07	9	0	0	0
9163	3524	BC	335.63	13	0	0	0
9163	3524	BE	61.34	1	0	0	0
9164	3524	BC	258.18	10	0	0	0
9164	3524	BE	245.36	4	0	0	0
9165	3524	BC	129.09	5	0	0	0
9165	3524	BE	552.07	9	0	0	0
9166	3524	BC	51.64	2	0	0	0
9166	3524	BE	736.09	12	0	0	0
9167	3524	BA	471.37	8	0	0	0
9170	3524	BC	25.82	1	0	0	0
9170	3524	BE	797.43	13	0	0	0

Figure 16, Material Table

F1 (Search), F3(Up Table), F4(Down Table) PgUp, PgDn, Home(Top), End(Bottom)
Esc (Return) Note: To search, use F1, but move to field, using F3, F4, arrows
Data Revision Number 162

TABLE HIST-LOC						
Sequence Identifier	Rev Typ	Can #	Can Loc	Previous Loc	Action Date	Database Updated
0085-J MULLANEY	B	3435E	W3503	E3435	8/24/92	8/24/92
0086-J MULLANEY	B	3520E	W3103	E3520	8/24/92	8/24/92

TABLE HIST-CAN								
Sequence Identifier	Rv Tp	Can No.	Purged Wt.	Pkg Flg	Net Wt.	Previous Data No-PurWt-pkg-NetWt	Action Date	Database Updated
0087-97504	P	5455E	477	P	377	5455E-0-P-0	8/24/92	8/24/92

TABLE HIST-MAT										
Ident	Ch Tp	Can #	Key Date	F U E L Type	MWD's	Numbers As	Ou	In	Pc	Previous Contents
0004-KR MO	C	6859E	4356D	BC	0	0	1	0	0	New Record
0005-KR MO	C	6859E	4356D	BE	0	0	0	7	0	4356-D-BE-0-0-0-5-0

Figure 17, History Table

A = ALL stuck

Encapsulation

Revision number is 163

By canister or location (C/L)-->L

Enter canister location ----->W0805

Canister: 4569

Date encapsulated ----->4/05/94

Is this a STUCK Can? (A/P/N)-->P

Entries OK so far? (Y/N)-->Y

Enter loose material can no. -->0000

Loose mtl canister destination->W0103

Enter purged weight ----->500

Enter net weight ----->480

Loose entries OK? (Y/N)-->Y

Stuck material canister no is ->0012S

OK!

P = PART stuck

Proceeding

OK!

OK!

Proceeding

Figure 18, Encapsulation Input

Material Qry Disp for "Stuck" or "Loose"

M A T E R I A L

-- Fuel Characteristics --			----- Quantities -----				Stuck or Loose
Fuel Key	Model Type	Energy MWD's	Fuel Assem.	Outers	Inners	Other Pieces	
1449D	BA	277.32	5	0	0	0	Stuck
1449D	BE	408.43	7	0	0	0	Stuck
1449D	BS	111.27	2	0	0	0	Stuck

Use Delete key to toggle "Loose", or Insert key to toggle "Stuck"

3 of 3

Press (Loose Material), <Ins> (Stuck), <F2> when done, <Esc> to abort

Figure 19, Encapsulation Distribution Table