K BASINS

DATABASE SYSTEMS

Cleanup MAC and MBA Code

Acceptance Test Procedures for MAC and Mass Balance Programs

Software Versions MAC: 3.3 and MBA: 1.3

Vern K. Russell

**WESTINGHOUSE HANFORD COMPANY
INFORMATION RESOURCE MANAGEMENT**

April 7, 1994 ✓

MASTER

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

Table of Contents

1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Scope	1
1.3 Background	1
2.0 ACCEPTANCE TEST PLAN	2
3.0 ACCEPTANCE CRITERIA	3
4.0 ACCEPTANCE TEST PROCEDURES	3
4.1 General	3
4.3 Startup	5
4.4 Materials Accounting (MAC) Program Tests	6
4.4.6 Optional MAC Tests	8
4.5 Mass Balance Program Tests	9
4.5.1 MassBal / In	9
4.5.2 MassBal / Weigh	9
4.5.3 MassBal / Out	9
4.5.4 Optional MBA Tests	10
5.0 REFERENCES	11
6.0 APPENDIX A	12
6.1 List of Figures	12
6.2 Figures	13

1.0 INTRODUCTION

1.1 Purpose

- Present the steps needed to perform minimal Acceptance Test on the Material Accounting Program, software version 3.3, when operated in the K Basins Applications integrated environment.
- Present similar procedures for the Mass Balance Program, software version 1.3.

1.2 Scope

The scope of the tests reflect changes requested in MAC Change request #19 and MBA Change request #5. The MAC tests will include two reports and menu movement activity along with data entry flow checks. The MBA tests will involve viewing each of the data entry screens along with the main menu.

1.3 Background

The Mass Balance Program (Reference 2) is an adjunct to the Material Accounting (MAC) database system (Reference 1).

During the acceptance testing of MBA version 1.3 and MAC version 3.2, several cleanup activities were indentified as being required so that the code would support the upcoming encapsulation campaign.

The internal design of the MAC and MBA programs has changed according to the change requests referred to above.

In keeping with the software configuration management plan (Reference 3) the versions to be released after successful completion of this ATP will be designated as MAC version 3.2 and MBA version 1.3.

2.0 ACCEPTANCE TEST PLAN

This document constitutes the acceptance test plan for the MAC version 3.3 and MBA Version 1.3 software.

Test location: Bldg. M0102, room 1, 100K Area

Computer: The PC located room 1, assigned to Karen Morris, or an alternate PC designated by K Basins Operations Support.

Disk space: the h:\new\pdxappl's directory of HLAN.

Participants will consist of the following:

Test Performer

Test Witness

IRM Analyst (Off site, available for consultation)

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 Versions **MBA 1.3** and **MAC 3.3** functions must perform as defined in this document.

4.0 ACCEPTANCE TEST PROCEDURES

4.1 General

Previously published acceptance test procedures (References 1 and 2) will be used to define detailed steps for each of the two systems to be tested. Reference 2 has been revised to reflect the changes made in the MBA program. The changes will be released through an Engineering Change Notice.

Prior to the test, the software based out of the h:\new\pdxappl subdirectory will be copied to a backup disk to preserve the previous test environment. This includes Paradox scripts and library files only. No Paradox tables need to be moved.

The test will be initiated on the h:\new\pdxappl subdirectory.

Upon satisfactory completion of the tests, including software revisions if any, all scripts and library files will be installed in the production areas after the production data is backed up to a burnouli disks also.

4.2 Procedure Format

The K Basins integrated 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 **MAC**, then the next menu seen will be Figure 2, which presents all of the **MAC** options. If, in Figure 1, the user presses the **B** key, then the next menu seen will be Figure 3, which presents the Mass Balance 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

From Windows select NEW Paradox Applications Icon.

OBSERVE messages indicating setup and entry into network Paradox.

OBSERVE K Basins Paradox Applications menu (Figure 1), with the directory notation "h:\new\pdxappls" blinking in the upper right portion of the screen.

NOTE If for any reason the user exits the main menu (such as by going to Paradox), he/she may restart the system from Paradox via a "Scripts / Play / apps" command. To execute this command, user must first assure that Paradox is working from directory "h:\new\pdxappls".

RECORD results in the test execution log.

4.4 Materials Accounting (MAC) Program Tests

NOTES:

- (1) It would be helpful to have a copy of a recent Compact Map report in hand before beginning this part of the Acceptance Test.
- (2) Test performer will need a copy of reference 1, for detailed test procedures.

4.4.1 UPDATE Menu Password.

This test will verify that a password is required to get to the UPDATE menu.

At the K Basins Paradox Applications menu (Figure 1), PRESS M.

At the Materials Accounting (MAC) main menu (Figure 2) PRESS U or ↵.

OBSERVE a prompt asking for the system password.

FILL in the password.

OBSERVE the update menu.

RECORD results in the test execution log.

4.4.2 No Password for DELETE, CHANGE, ADD Functions

This test will verify that no password is required to get to the Delete, Change or Add functions, because these functions lie within the UPDATE menu.

At the Materials Accounting (MAC) Update menu (Figure 4) PRESS D or ↵, to select "DELETE".

OBSERVE the Delete entry form (no password required).

At the Materials Accounting (MAC) Update menu (Figure 4) PRESS C or ↵, to select "CHANGE".

OBSERVE the Change entry form (no password required).

At the Materials Accounting (MAC) Update menu (Figure 4) PRESS A or ↵, to select "ADD".

OBSERVE the Change entry form (no password required).

RECORD results in the test execution log.

4.4.3 Encapsulation Test Recycle

This tests verifies that after completing encapsulating processing on one canister that the system asks for another item to encapsulate instead of returning out to the main menu.

PERFORM item 4.5.1 of reference 1.

OBSERVE the beginning of the Encapsulation Input table (example: Figure 5) after all of the steps are performed.

NOTE: Please observe that all the data entry windows are maximized.

RECORD results in the test execution log.

4.4.4 Encapsulation Returns to Update Menu

Verify when done with Encapsulation that the UPDATE menu appears.

From the beginning of the Encapsulation Input table, press ENTER or Esc from either the select type or select Canister/Location prompt.

OBSERVE that the MAC Update menu appears on the screen.

RECORD results in the test execution log.

4.4.5 Report & Print -- Empty/Unpackage

At the MAC main menu (Figure 2), PRESS R.

PERFORM item 4.6.2.1 of reference 1 for an Unpackaged report. Repeat for an Empty report.

Then at the MAC main menu (Figure 2), PRESS P.

PERFORM item 4.6.2.2 of reference 1 to print these out.

RECORD results in the test execution log.

4.4.6 Optional MAC Tests

At this point, the test performer may select one or more additional functions to test.

At the MAC main menu (Figure 2), SELECT the function desired.

PERFORM the associated item of reference 1.

RECORD results in test execution log.

When finished performing optional tests:

At the MAC main menu (Figure 2), PRESS A.

OBSERVE return to the K Basins Paradox Applications Menu (Figure 1).

RECORD results in test execution log.

4.5 Mass Balance Program Tests

NOTES:

- (1) It would be helpful to have a copy of a recent Compact Map report in hand before beginning this part of the Acceptance Test.
- (2) Test performer will need a copy of reference 2, for detailed test procedures.

4.5.1 MassBal / In

At the K Basins Paradox Applications menu (Figure 1), PRESS B.

At the Mass Balance (MBA) main menu (Figure 3) PRESS M or $\leftarrow$ J.

OBSERVE the current Mass Balance displayed below the menu.

PERFORM item 4.4.1 of reference 2.

OBSERVE the current Mass Balance and extra instructions on the "In" data entry screen.

RECORD results in the test execution log.

4.5.2 MassBal / Weigh

At the Mass Balance (MBA) main menu (Figure 3) PRESS M or $\leftarrow$ J.

PERFORM item 4.4.2 of reference 2.

OBSERVE the current Mass Balance and extra instructions on the "Weigh" data entry screen.

RECORD results in the test execution log.

4.5.3 MassBal / Out

At the Mass Balance (MBA) main menu (Figure 3) PRESS M or $\leftarrow$ J.

PERFORM item 4.4.3 of reference 2.

OBSERVE the current Mass Balance and extra instructions on the "Out" data entry screen.

RECORD results in the test execution log.

4.5.4 Optional MBA Tests

At this point, the test performer may select one or more additional functions to test.

At the MBA main menu (Figure 3), SELECT the function desired.

PERFORM the associated item of reference 1.

RECORD results in test execution log.

When finished performing optional tests:

At the MBA main menu (Figure 3), PRESS A.

OBSERVE return to the K Basins Paradox Applications Menu (Figure 1).

RECORD results in the test execution log.

5.0 REFERENCES

- (1) Mullaney, J.E., and Russell, V.K., "MAC Database Mini Acceptance Test Procedures for Software Version 3.3", Westinghouse Hanford Company, Apr. 7, 1994.
- (2) Mullaney, J.E., and Russell, V.K., "Mass Balance System Acceptance Test Procedures, Software Version 1.3", WHC-SD-NR-ATP-018, Westinghouse Hanford Company, April 7, 1994.
- (3) Russell, V.K., and Mullaney, J.E., "Materials Accounting Database Software Configuration Management Plan, WHC-SD-NR-CSWD-046, Westinghouse Hanford Company, July 12, 1990.

6.0 **APPENDIX A**

This APPENDIX contains the Figures referenced in the text of this document. Other menus and figures detailing expected results are given in references 1 and 2.

6.1 List of Figures

<u>Figure</u>	<u>Contents</u>
1	K Basins Paradox Applications Menu
2	Materials Accounting (MAC) Main Menu
3	Mass Balance Main Menu
4	MAC Update Menu
5	Encapsulation Input Screen

6.2 Figures

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

<div>CHOOSE:</div> <div> MAC Balance (MBA) Action Tracking Calendar Executive GoParadox Who's There Quit </div>	Menu: Programs Directory: h:\new\pdxappl <div> Materials Accounting Program Mass Balance Program Action Tracking / Completions Program Calendar program via K Basin Applications Administrative (Executive) Functions Go to Paradox Who are the current persons using Paradox Quit Running Applications Programs </div>
--	---

Figure 1. K Basins Paradox Applications Menu

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

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

Figure 2. Materials Accounting (MAC) Main Menu

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

<div>CHOOSE:</div> <div> MassBal Verify Clear Download Upload Help Executive Applications Quit </div>	Menu: mbmain Directory: g:\new\mba\ Perform mass balance processing Verify material removal (requires two operators) Remove all material from chute (two operators) Move data from HLAN to local directory c:\mba Move data from c:\mba to the HLAN production system View mass balance History, Material, etc. files Database Administrative Functions Paradox Application Programs Menu Terminate mass balance processing, return to DOS
---	--

Figure 3. Mass Balance Main Menu

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

Figure 4, MAC Update Menu

A = ALL stuck

```

Encapsulation
Revision number is 163
By canister or location (C/L)-->L
Enter canister location ----->W0805 OK!
Canister: 4569
Date encapsulated ----->4/05/94
Is this a STUCK Can? (A/P/N)-->P P = PART stuck
Entries OK so far? (Y/N)->Y Proceeding
Enter loose material can no. -->0000 OK!
Loose mtl canister destination->W0103 OK!
Enter purged weight ----->500
Enter net weight ----->480
Loose entries OK? (Y/N)-->Y Proceeding

Stuck material canister no is ->0012S
  
```

Figure 5, Encapsulation Input Screen