ServiceNow Ticket RITM0049965
PPP050 to allow null input

Technical Specification

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Prepared by Michael MacDonald

Information Technology Services
Office of the President
University of California
# Version History

<table>
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<tr>
<th>Version #</th>
<th>Date</th>
<th>Revised By</th>
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1 Introduction

PPP050, the program which performs the editing of explicit EDB maintenance transactions, currently fails with a U4038 abend when running with no input. This is an occurrence that can happen for a variety of reasons, and it should not result in a program abend. There are no current ServiceNow Incidents open on this situation, but this is a known condition which has resulted in batch processing failures in the past.

2 Background

PPP050 is coded to post user error messages and throw a condition code 0008 when there is no input. However, one test is missing from the logic so that a subroutine is called without initialization of the interface when there is no input.

3 Overview of System Modifications

3.1.1 EDB Maintenance Process

To PPP050, add an IF test in the main processing section so that when there is no input no further processing occurs and a DISPLAY message is routed for Production Control and other support personnel to understand that the process detected no valid input.

4 Design Considerations

4.1 General Constraints

- This is a very minor programming change with no specific constraints imposed or implied. There is no change to existing processes nor any user impact. It is a technical change improving reliability and providing accurate diagnostic information only.

5 Testing Considerations

Batch execution of PPP050 with and without valid input will fully validate the changes.

6 Mainframe Design

6.1 EDB Maintenance

6.1.1 Cobol Programs

6.1.1.1 PPP050

PPP050 is the first step in the batch EDB maintenance process. It performs value and range editing.

WORKING-STORAGE

Note the following change, to final count storage:

01 PPVREDIT-COUNTER-FEEDBACK-AREA.
05 EOD-OF-FILE-IND          PIC X(01) VALUE 'E'.
PROCEDURE DIVISION

In the main loop, named DRIVER-0000, alter as follows:

```
DRIVER-0000 SECTION.

* THIS IS THE MAIN DRIVING ROUTINE. IT OPENS THE FILES
* AND PERFORMS INITIALIZE-1000 FOR HOUSEKEEPING. WE
* DO THE SORT INVOKING INPUT AND OUTPUT PROCEDURES.
* AFTER THE SORT IS COMPLETED WE CLOSE THE FILES AND
* WRAPUP.
******************************************************************
SET AN-ABEND-HAS-NOT-OCCURRED TO TRUE.
MOVE A-STND-PROG-ID TO XWHC-DISPLAY-MODULE.
COPY CPPDXWHC.

** SEVERITY COMPARANDS **
**************************************************************************************
MOVE 1 TO CPWSSEVX-INFORMATIONAL-SEV.
MOVE 4 TO CPWSSEVX-WARNING-SEV.
MOVE 5 TO CPWSSEVX-SERIOUS-SEV.
MOVE 7 TO CPWSSEVX-SEV-FATAL.
MOVE 8 TO CPWSSEVX-SEE-SYSTEM-SEV.
OPEN INPUT CARD-FILE.
OPEN OUTPUT PRINT-FILE.
PERFORM INITIALIZE-1000.
MOVE 120000 TO SORT-CORE-SIZE.
SORT SORT-WORK-FILE ON ASCENDING KEY
   SK-MAJOR
   SK-CRD-CODE
   SK-COUNTER
   SR-ORIGIN
   INPUT PROCEDURE IS BATCH-BALANCE-2000
   OUTPUT PROCEDURE IS RITE-RECORDS-3000.

IF CRD-COUNT > 0
   CALL 'PPPVREDT' USING
      PPVREDIT-COUNTER-FEEDBACK-AREA
ELSE
   DISPLAY '***
   DISPLAY '*** PPP0050: ERROR - NO VALID INPUT FOUND ***'
   DISPLAY '***'  
END-IF

IF AN-ABEND-HAS-OCCURRED
   MOVE CPWSSEVX-SEE-SYSTEM-SEV TO RETURN-HIGHEST-SEVERITY
   ... and so on...
```
7 Unit Testing Requirements

7.1 Batch Testing

Run PPP050 with and without valid input. When valid input, the editing should occur with no changes from prior version of the program. Without input message, the following should appear in the PRINTFIL output:

PPP050 HAS ENCOUNTERED A FATAL ERROR
     05044   OPER - NO TRANSACTIONS IN INPUT FILE

Also, in SYSOUT, the following (or similar depending on final details of programming) should appear:

*** ____________________________________________________ ***
*** PPP050: ERROR - NO VALID INPUT FOUND ***
*** ____________________________________________________ ***