IT Service Hub Error Report  RITM0055126
PPP465 Error

Technical Specification

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## Version History

<table>
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<tr>
<th>Version #</th>
<th>Date</th>
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<th>Reason for Change</th>
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<tr>
<td>1.0</td>
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<td>Maxine Gerber</td>
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<td>Corrected DDL names; removed ‘draft’</td>
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1 Introduction

1.1.1 Error Report RITM0055126
Extremely rarely, when loading the DB2 PAR, program PPP465 will delete an old record PAR record if it has the same employee ID and PRI_GROSS_CTL values. This is necessary because indexes prevent two records from having the same values for those fields.

At present, there is no way of knowing which records have been deleted. For future projects, it may become important to identify any records which have been deleted.

2 Overview of System Modifications

2.1.1 Compute Process
After each compute, PPP465 runs to load the flat PAR file into DB2. PPP465 will be modified to write a record to a new table whenever a duplicate record is to be deleted.

It is proposed that summary information about records being deleted should be written to a new table prior to the delete

Design Considerations

3 Testing Considerations
A before and after test should be run to verify that there is no change to the DB2 PAR as a result of the change and that the correct records are written to the new table.
4 Mainframe Design

4.1 Compute

4.1.1 Database Changes

4.1.1.1 PPPDRP (new)

This new table will contain a row for every PPPEUD deleted due to a duplicate key.

4.1.1.1.1 DDL Members

4.1.1.1.1.1 TSDRP01C - Create new tablespace in the PAR database.

4.1.1.1.1.2 TBDRP00C - Create new table in the PPPDRP tablespace

This table will include all columns of the PPPEUD table, plus the following additional fields:

- DRP_CREATED_ON TIMESTAMP NOT NULL WITH DEFAULT,
- DRP_CREATED_BY CHAR(8) NOT NULL WITH DEFAULT,

The keys are as follows:

- PRIMARY KEY (PAY_CYCLE_END_DATE, PAY_CYCLE_CODE, EMPLOYEE_ID, RECORD_TYPE, PRI_GROSS_CTL),
- FOREIGN KEY (PAY_CYCLE_END_DATE, PAY_CYCLE_CODE)
  REFERENCES PPPPIR ON DELETE CASCADE

4.1.1.1.3 IXDRP00C - Create primary index for PPPDRP

4.1.1.1.4 PPPVDRP1 - Create full table view of PPPDRP.

4.1.1.2 Include Members

4.1.1.2.1 PPPVZDRP
4.1.2 Cobol Programs

4.1.2.1 PPP465

PPP465 maintains (inserts and deletes records from) the DB2 PAR tables.

Inputs and Outputs

PPPVZDRP_DRP is being added as an output table.

WORKING-STORAGE

Add PPPVZDRP definition.

PROCEDURE DIVISION

1. Qualify all existing references of PAR-SEQ-NO with "OF WS-EUD", because there are now multiple fields with this name.
2. In 80200-WRITE-EUD-ROW
   • Add code to read the PPPEUD table using the key to be inserted.
   • If found, prior to inserting the new PPPEUD row
     • If there have already been 50 duplicates detected, abend with message 46507
     • add code to insert a row into PPPDRP using the fields from the existing PPPEUD row
     • add code to delete the row from PPPEUD.
3. Replace 81450-DELETE-DUP-RECORD with 81450-DELETE-EUD, and remove the insert command, leaving only the delete command.
4. In 999999-SQL-ERROR, remove the entire code for statement " IF (SQLCODE = -803"
4.1.3 Control Table Updates

4.1.3.1 CTL Database

4.1.3.1.1 PPPMSG - System Messages Table

New message

A08465070115 9 TOO MANY DUPLICATE RECORDS - ABENDING

4.1.4 JCL Changes

4.1.4.1 PAR Load and Unload JCL

The new PPPDRP table should be added to all JCL members for unloading and loading the PAR database.
5 Unit Testing Requirements

5.1 Data Setup

- Load the PAR database using the backup created from a prior month's base backup, eg. PAYMSM.BASE.UB2PAR.OCT14
- In the current month's sequential PAR (eg. PAYMSM.BASE.FNLPAR.NOV14), find the pri gross control number for a few test cases. Turn hex on to see the value. In the sample below, the primary gross control number is 544.

```
000029 000050001054D141122B28510              CARTER, HELENA BONHAM
FFFFFFF54CFFFCFF00440000000001CCDECD64CCDCDC4CDDCCD
00005000105441411222851001000000403000F319359B08535510265814
```

- In the DB2 PAR, copy an existing PPPEUD row for the employee to a new row with the same pri gross control number.
- Backup the DB2 PAR

5.2 Before Test

- Run PPP465.
- Verify the following:
  - Verify that the appropriate record was dropped and the new one added for the duplicate pri gross control number(s).
  - Note the presence of -803 messages and the text "DELETE RECORD" in the SYSOUT DD.

5.3 After Test

- Reload the DB2 PAR from the backup taken above.
- Run PPP465.
- Verify the following:
  - No -803 errors in SYSOUT.
  - A record was added to the PPPDRP table for each duplicate pri gross control.
  - Verify that the appropriate record was dropped and the new one added for the duplicate pri gross control number(s).
  - Verify that the PPP4651 reports are identical.

5.4 Test Error Message

The modified PPP465 will abend with message 46507 if there are more than 50 occurrences of duplicate pri gross control numbers. Rather than setting up 51 cases, you can change the 50 occurrences to 0 in 80200-WRITE-EUD-ROW. As long as there are at least two duplicate cases, running PPP465 will abend with the message and return code 0009. Make sure to change it back to 50 after the test.