Release 1157
Service Request 13259
Daily Benefits Enrollment Maintenance
Detailed Design

December 16, 1997

Information Systems & Computing
Office of the President
University of California
# Table of Contents

*Introduction*  
Page 1

Restatement of Requirements  
Page 2

Processing Overview  
Page 4

New Input File  
Page 7

PPPBIV Processing Table  
Page 9

JCL Changes  
Page 10

Copylib Changes  
Page 11

DDL Changes  
Page 14

Include Member  
Page 15

Bind Member  
Page 16

Program Changes  
Page 17

Control Table Updates  
Page 23

Forms  
Page 26

Appendix A (Process Diagram)  
Appendix A - 1

Appendix B (Exception Report Sample)  
Appendix B - 1
Introduction

UC Benefits is currently developing a process to support enrollment in health and welfare benefits interactively by use of either an IVR application or an Internet-based application. Initially these applications will be limited to newly hired employees. Eventually they will be expanded to include continuing employees who are newly eligible for benefits, as well as employees who have been rehired.

The project plan for these new applications recognizes that the Employee Data Base (EDB) in the Payroll/Personnel System (PPS) needs to be updated with the collected enrollments as soon as possible after the employee completes his/her session. The plan calls for utilizing the existing functionality in the EDB Daily Employment Status Derivation job to apply the Benefits Enrollment updates on a daily basis.

To avoid miscommunication, I have made a list of terms, most of them already in use, to help distinguish the various processes referred to in this document from one another.

Terms:

Daily Process  
*Daily Periodic Maintenance, or EDB Daily Employment Status Derivation Job:* This is the existing process that runs nightly and derives employment status information.

Periodic Maintenance  
*Daily Periodic Maintenance, Monthly Periodic Maintenance, Quarterly Periodic Maintenance, etc:* All of these existing processes share a common group of functions, and are the model for the new Daily Benefits Enrollment Maintenance process.

BES  
*Benefits Enrollment System:* This refers to the applications that capture benefits information from the IVR or Internet.

DBEM  
*Daily Benefits Enrollment Maintenance:* This is the name of the new process described in this document that takes the Benefits Enrollment System information and applies the collected benefits changes to the Employee Data Base (EDB).
Restatement of Requirements

The purpose of this section is to restate the requirements for the new Daily Benefits Enrollment Maintenance process. It describes each requirement and the changes if any that were needed.

Service Request 13259

The wording of the original Service Request calls for modifications to the existing EDB Daily Employment Status Derivation (Daily Process). It was thought that in many ways this process has much in common with what needs to be performed in the DBEM process. Moreover, the Daily Process is run daily.

However, in designing the Daily Benefits Enrollment Maintenance process, it was necessary to separate it from the Daily Process. While it shares much of its functionality with the Daily Process, DBEM must be discrete in order to insure the integrity of both processes. Moreover, all the different Periodic Maintenance functions must follow a pattern of processing one employee's updates at a time. This was not feasible if the Daily Process and DBEM were combined.

The specific requirements described in the Service Request are:

1. The information from the Benefits Enrollment System is in the form of transaction records on a sequential file. Therefore, the DBEM process must be able to read sequential transaction records.

2. There is a possibility of no BES activity for a given day, and DBEM must handle this possibility. If no Benefits Enrollment System transactions were created between the last run of the DBEM process and the current run, the process will simply indicate the lack of activity in its Exception report. It will not terminate abnormally, and there will be no immediate impact on other scheduled processes.

3. The DBEM process must also allow the flexibility to run a number of days' worth of Benefits Enrollment System transactions, in case it was not run for a few days. Thus a mechanism is needed that can read more than one day's worth of changes without terminating abnormally.

4. The processing of the Benefits Enrollment System transactions must fit into the existing structure of the Periodic Maintenance processes. The Periodic Maintenance processes follow a structure of clearly delineated functions, whose breadth and scope are not easily and quickly duplicated, but are flexible enough to be incorporated into new processes. The central design principle is to process all changes to a single employee at the same time, one employee at a time. The DBEM process will therefore need to cluster individual transaction changes, which may amount to several per employee, into one update request per employee.
5. The DBEM process must also limit itself to a discrete amount of editing. The Benefits Enrollment System itself does extensive editing already. The DBEM process must specify a distinct route for its edits, rather than use a more general, and comprehensive existing edit logic that would in this case be redundant and time-consuming. The Service Request itself specifies the edits that will be needed, and the error messages that must be generated. Overall, these edits are minimal, primarily dealing with the possibility of duplicate updates from the Benefits Enrollment System and the On-line and Batch PPS systems.

6. The process must also perform the derivation of coverage levels for medical, dental, vision and legal enrollments and to update the Pending Premium table. The structure of Periodic Maintenance allows for incorporating existing derivation logic into the DBEM process.

7. An ECF (Employee Change File) must also be produced, so that changes will be audited and applied to the HDB.

8. The DBEM process must be run before the Daily Process. This will minimize the possibility of exceptions in the DBEM process that would have to be handled personally by the Benefits office.

9. Lastly, the process must produce two reports, an Exception report to be reviewed by the Benefits Office, and a Control report, stating statistics for that run of the process.
Processing Overview

**Daily Benefits Enrollment Maintenance**

This new process is performed based on a new Run Specification.

Whenever the Periodic Maintenance program PPP130 encounters the new Run Specification Record, it unconditionally executes PPBIVUTL. PPP130 executes this program from its initialization logic, before it accesses the EDB. PPBIVUTL reads transaction records from the Benefits Enrollment System transaction file.

This BES file contains the Benefits enrollment changes produced that day by the BES IVR and Internet applications. These transaction records follow the file layout specified in the Service Request for this release, #13259. Each record contains basic identifying information (such as Employee ID), and the values intended for update. Each record also has a specific transaction type. Valid transaction types are limited to the following:

- Medical Plan Enrollment
- Dental Plan Enrollment
- Vision Plan Enrollment
- Legal Plan Enrollment

- Medical Plan Opt-Out
- Dental Plan Opt-Out
- Vision Plan Opt-Out

- Dependent Data Enrollment

- Employee Paid Life Insurance Enrollment

- Dependent Life Insurance Enrollment

- Employee Paid Disability Enrollment

- Accidental Death and Dismemberment Enrollment

- DepCare Enrollment Transaction

- Tax Savings on Insurance on Insurance Premiums Enrollment

---

1 Since the DBEM process normally runs daily, we assume here that the BES file contains changes for only one day. There are exceptions. See the section detailing the BES Transaction File.
PPBIVUTL loads these transaction records into a temporary processing table, PPPBIV. Before the first record is loaded, all data on the PPPBIV table is deleted. Thus, the table contains data pertinent only to the current run of the process.

PPBIVUTL maintains statistics on the amount of records processed, including the amount per transaction type. These statistics are later reported by the Control report program, PPBIVRP1. The PPBIVUTL program is terminated once it has finished loading the PPPBIV table.

The structure of the Periodic Maintenance program PPP130 is based on processing one employee's updates at a time. A large routine is performed once for each employee ID. This routine is performed repeatedly, starting at the first employee ID and selecting each employee ID until all IDs are processed. This routine:

1. loads all the current data for the specific employee ID,
2. prepares updates to that data by loading prospective update values into a hold area,
3. calls edit programs to validate those updates,
4. rejects updates that are invalid, reporting on them in an Exception report
5. calls update programs to apply the updates that are valid.

The data from the Benefits Enrollment System, however, is transaction based, containing one or more change per employee. The temporary processing table, PPPBIV, also contains one or more record per employee. In order to process this data PPP130 needs a way to compress the multiple changes into one change. To perform this it calls PPBIVEDB.

PPBIVEDB determines all the updates that are being made for a specific employee. It reads sequentially through all the employee's PPPBIV records, and moves each specific update value to the corresponding hold area of prospective updates. When complete, the employee's updates are in a condition that fits with the programs structure and ready for editing.

PPP130 then calls the edit programs assigned to the DBEM process. As with other processes, these edit programs are called using the Routine Manager Program, PPRTNLMGR. Derivation programs are also called as part of this process.

These programs are:

1. PPEC140 - edits the enrollments for the employee.
2. PPEC142 - edits dependent enrollments
3. PPEC722 - derives the Medical Plan Coverage Level
4. PPEC723 - derives the Dental Plan Coverage Level
5. PPEC724 - derives the Vision Plan Coverage Level
6. PPEC725 - derives the Legal Plan Coverage Level
7. PPEC143 - performs Health Insurance Pending Premium Maintenance for Benefits Enrollments
8. PPEC144 - performs Dental Insurance Pending Premium Maintenance for Benefits Enrollments
9. PPEC145 - performs Vision Insurance Pending Premium Maintenance for Benefits Enrollments
10. PPEI709 - this routine edits for all initial values for Dependent Coverage Effective Dates (DCED's).
11. PPEI720 - derives the salary base for either EPD and/or GLI for those employees not initially enrolled

The PPBIVRP1 program is a common routine used throughout the DBEM process to print errors to an Exception report of the same name, PPBIVRP1. The messages are listed later in this document.

After this edit step is complete, PPP130 proceeds to the update section of its logic, and calls the various programs that comprise the Update Complex. Since the DBEM process follows established rules in preparing its data for this step, no changes have been made here.

At the completion of the Update Complex, PPP130 has updated the EDB. The last remaining subprocess is to print the Control Report, PPBIVRP2. This is performed by PPBIVRP2, using statistics passed from the PPBIVUTL program.
New Input File:

*Benefits Enrollment System Transaction File*

In order to successfully process transactions from BES, the transaction file that BES sends to the DBEM process must follow these guidelines:

1. The file must have as its first record a standard Batch Header record. This header must include:
   A. The date the BES transactions were created. This must correspond to the Entry Date on the transactions.
   B. The total number of transaction records in the file.

The layout of the Batch Header is as follows:

```plaintext
05 T-HEADER-RECORD REDEFINES T-TRANS-RECORD.
  10 T-HDR-BATCH-TAG PIC X(05).
    88 BATCH-TAG VALUE 'BATCH'.
  10 FILLER PIC X(02).
  10 T-HDR-BATCH-SEQ PIC X(03).
  10 FILLER PIC X(03).
  10 T-HDR-BATCH-HH PIC X(03).
  10 T-HDR-BATCH-DT PIC X(06).
  10 T-HDR-REC-COUNT PIC 9(07).
  10 FILLER PIC X(73).
```

2. The transactions must be in order by Employee ID.

3. The first 18 positions of the transaction record must contain the Transaction Type, Employee-ID and Entry Date. The layout for these fields is:

```plaintext
10 T-TRANS-KEY.
    15 T-TRANS-TYPE PIC X(2).
    15 FILLER PIC X(1).
    15 T-EMPLOYEE-ID PIC X(9).
    15 T-ENTRY-DT PIC X(6).
```

4. It is assumed that the vast majority of process runs will be daily. However, the DBEM process has the ability to run more than one day's transactions. If more than one day's worth of BES transactions need to be processed, each day's worth of transactions must be arranged in batches. Each batch must include a Batch Header as described above, followed by that day's transactions. Next will follow the next day's Batch Header, followed by that day's transactions, and so on.
The concatenating of multiple day's worth of BES transactions will not be built into the DBEM process. The file must be concatenated before DBEM is run.

5. The record positions for the values to be updated follow the format specified in Service Request 13259. These positions are reflected in the file layout described in Copy Member CPWSXBIIV.
PPPBIV Processing Table

A new Processing Table will be added to the Process Control Database.

PPPBIV is a new processing table that will hold all the transaction data loaded from the BES Transaction File. This table is temporary, and will exist only for the time of the process.

At the start of each run of DBEM, PPP130 calls the PPBIVUTL program. The very first step of that program is to clear the PPPBIV table of all data from the previous run.

The DBEM process also follows the standard existing in Periodic Maintenance of not issuing any explicit or implicit DB2 COMMITs, with the exception of course of the satisfactory conclusion of the process. Thus, in the event that the entire process ends abnormally, PPPBIV will be returned to the condition that existed before the process was started, namely that it will contain data from the last successful run.

The Primary Key of PPPBIV contains only 3 fields:

EMPLOYEE_ID: corresponding to the Employee-ID from the transaction record,
EMP_TRANS_SEQ: a sequential number generated by the PPBIVUTL program,
ENTRY_DT: corresponding to the Entry-Dt from the transaction record.
JCL Changes

A job needs to be created for the Daily Benefits Enrollment Maintenance process. It should execute ppp020 with a System Control Record input that has a Special Process Indicator of "5". PPP130 should next execute with the following DD change.

DD names PPBIVRP1 and PPBIVRP2 will be added for the Daily Benefits Enrollment Maintenance process Exception and Control Reports, respectively.

LRECL = 133
RECFM=FBA
Copylib Changes

CPLNKBIV

This new copymember defines error message keys and severe error switches that are used in the new edit programs to pass the PPBIVRP1 report program key information. PPBIVRP1 then uses that information to format an error message on the Exception Report. The sever error switches are used by PPP130 to determine to continue the DBEM process run.

CPWSSWCH

The modifications to this copy member define common switches used by PPEC140 and PPEC142 to communicate information about the employee's rejected Benefits enrollments. If an enrollment in a plan is rejected at the employee level, then enrollment of that employee's dependents in that plan will also be rejected.

The switches are:

```
05 BELI-MED-BLOCK-SW       PIC X.
05 BELI-DEN-BLOCK-SW       PIC X.
05 BELI-VIS-BLOCK-SW       PIC X.
05 BELI-LEG-BLOCK-SW       PIC X.
05 BELI-EPD-BLOCK-SW       PIC X.
05 BELI-EPL-BLOCK-SW       PIC X.
05 BELI-DEPL-BLOCK-SW      PIC X.
05 BELI-ADD-BLOCK-SW       PIC X.
05 BELI-DEPC-BLOCK-SW      PIC X.
05 BELI-ALL-BLOCK-SW       PIC X.
05 HEALTH-ALREADY-ENROLLED-SW PIC X.
05 DENTAL-ALREADY-ENROLLED-SW PIC X.
05 LEGAL-ALREADY-ENROLLED-SW PIC X.
05 VISION-ALREADY-ENROLLED-SW PIC X.
05 HEALTH-ALREADY-OPTOUT-SW PIC X.
05 DENTAL-ALREADY-OPTOUT-SW PIC X.
05 LEGAL-ALREADY-OPTOUT-SW  PIC X.
05 VISION-ALREADY-OPTOUT-SW PIC X.
```
Final

**CPWSXBIS**

This new copy member defines the statistical data used for the Control report.

These totals specify grand totals for that run of the process, as well as totals for each transaction type. Totals read from the BES Transaction file and totals added to the PPPBIV processing table are included.

These counts also include totals for each batch processed. In the event that the DBEM process is run with a BES Transaction File containing more than one day's transactions, statistics will be maintained for each batch, or day's worth of processing. Totals will be separate and identified by Entry Date.

**CPWSXBIV**

This new copy member defines the transaction record received from the BES system. This includes several re-definitions of the layout of the file. Each redefinition corresponds to the specific transaction type of the transaction record. The transaction types and their corresponding group names are:

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Transaction Type Description</th>
<th>Redefined Group Item in CPWSXBIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>Employee Paid Disability Enrollment</td>
<td>T-DE-TRANS-RECORD</td>
</tr>
<tr>
<td>DM</td>
<td>Dependent Data Enrollment</td>
<td>T-DM-TRANS-RECORD</td>
</tr>
<tr>
<td>HE</td>
<td>Medical Plan Enrollment</td>
<td>T-HE-TRANS-RECORD</td>
</tr>
<tr>
<td>DP</td>
<td>Dental Plan Enrollment</td>
<td>T-DP-TRANS-RECORD</td>
</tr>
<tr>
<td>VP</td>
<td>Vision Plan Enrollment</td>
<td>T-VP-TRANS-RECORD</td>
</tr>
<tr>
<td>JD</td>
<td>Legal Plan Enrollment</td>
<td>T-JD-TRANS-RECORD</td>
</tr>
<tr>
<td>IE</td>
<td>Employee Paid Life Insurance Enrollment</td>
<td>T-IE-EP-TRANS-RECORD</td>
</tr>
<tr>
<td>IE</td>
<td>Dependent Life Insurance Enrollment</td>
<td>T-IE-DEP-TRANS-RECORD</td>
</tr>
<tr>
<td>IE</td>
<td>Accidental Death and Dismemberment Enrollment</td>
<td>T-IE-AD-D-TRANS-RECORD</td>
</tr>
<tr>
<td>X1</td>
<td>TIP Enrollment Transaction</td>
<td>T-X1-TIP-TRANS-RECORD</td>
</tr>
<tr>
<td>X1</td>
<td>DepCare Enrollment Transaction</td>
<td>T-X1-DC-TRANS-RECORD</td>
</tr>
</tbody>
</table>

The transaction record layouts follow the format specified in 'IVR NEW HIRE DOCUMENT #12', an attachment to the original Service Request.
CPWSXRTN

The modifications in this copymember are the additional names of the new subprograms called by PPP130 in the DBEM process. These additions are:

05 PGM-PPBIVUTL      PIC X(08) VALUE 'PPBIVUTL'.
05 PGM-PPBIVEDB      PIC X(08) VALUE 'PPBIVEDB'.
05 PGM-PPBIVRP1      PIC X(08) VALUE 'PPBIVRP1'.
05 PGM-PPBIVRP2      PIC X(08) VALUE 'PPBIVRP2'.
**DDL Members**

*Benefits IVR Process Table (PPPBIV)*

**TSBIV00C**

TSBIV00C is a new member that creates tablespace PPPBIV for the new process table.

**TBBIV00C**

TBBIV00C is a new member that creates the process table PPPBIV. The primary key for this table includes:

- **EMPLOYEE_ID**: this corresponds to the Employee-ID listed in the transaction record from the BES file.
- **ENTRY_DT**: this is the date the change was entered.
- **EMP_TRANS_SEQ**: this is a sequential number generated by the PPBIVUTL program to uniquely identify the transaction record in the event that the employee has more than one transaction for the Entry Date.

**IXBIV00C**

IXBIV00C is a new member that creates the index PPPXBIV for the table PPPBIV.

**PPPVZBIV**

PPPVZBIV is a new member that creates the view PPPVZBIV_BIV which references process table PPPBIV. No reformatting of data is made in this view; the view is updateable.
Include Member

**PPPVZBIV**

PPPVZBIV is a new Include member that corresponds to the new view PPPVZBIV_BIV.
Bind Member

PPP130
A modified BIND member is included for binding the new programs with PPP130. The changes to this Bind are the inclusion of the new programs, PPBIVUTL and PPBIVRP1. Although a report program, PPBIVRP1 accesses the DB2 view, PPPVZHME_HME in order to get the Employee's HME_DEPT_NAME.
Program Changes

Non-DB2 Programs:

PPBIVRP2
This is a new report program that summarizes the statistics from the PPBIVUTL program into the Control Report. The statistics refer to the loading by PPBIVUTL of the process table PPPBIV from the BES Transaction File.

This shows the amount of transactions on the BES file, the distribution of transaction-types, and the number of transactions successfully added to the process table, PPPBIV.

PPEC142:
Performs edits on dependent transactions. These include:

1. Editing for an employee's enrollment of a dependent in a plan for which he/she was rejected. In other words if an employee was rejected for enrollment in a specific plan, then the enrollment of his/her dependent(s) in that same plan must also be rejected. This edit is performed on a plan-by-plan basis.

2. Edits that check whether the dependent number exists for the employee. If the dependent number does not exist on the EDB, and is not being added by way of a previous transaction from BES, then all transactions for that dependent number will be rejected.

In order to insure that the dependent number is not valid, PPEC142 references both the dependent number on the EDB and any new dependent number on the transactions for that employee. Since more than one transaction can exist for each employee ID, PPEC142 must check all the transactions for a request for a new dependent.

DB2 Programs

PPBIVUTL
PPBIVUTL is a new program that reads one or more day's worth of Benefits Enrollment System transactions from the BES Transaction File and loads all valid transactions into the temporary processing table, PPPBIV. The program reads all the records and maintains statistics, including the total number of transactions read, the number of transactions per entry date, and the number of transactions per transaction-type (in all, and per entry date). These statistics are then used by PPBIVRP2 to produce the Control Report.
PPBIVUTL will likely encounter more than one transaction per employee ID per Entry Date (the date the Benefits Enrollment System captured the data). In fact, each employee ID may have more than one transaction of the same type per Entry Date. In order to identify each transaction as unique, a qualifying sequence number will be added to each employee's transactions as they are read. Thus each transaction will be uniquely identified by:

1. Employee ID
2. Employee Transaction Sequence Number
3. Entry Date

PPBIVUTL performs one edit. It checks whether the transaction type is valid. Valid types are described in the Service Request as being, 'HE', 'DP', 'VP', 'JD', 'X1', 'DM', 'IE', and 'DE'. All invalid transaction types will be rejected for update, and noted in the Exception Report. Only the invalid transaction will be rejected, not any following or preceding transactions. For example, if among one employee's 5 transactions, the second transaction had an invalid transaction type, it will be rejected, but the other 4 transactions will continue to be processed.

**PPBIVEDB**

PPBIVEDB is a new program that loads data from the PPPBIV process table to the appropriate current EDB row. The move logic is based on transaction type, which match the transaction layouts into PPP050. In some cases, e.g. the X1 transactions, data elements control further logic.

**PPEC140**

PPEC140 is a new program that performs the edits against the employee's eligibility/BELI, as well as editing already existing changes.

The program cross-references the employee's BELI with the types of enrollment changes read from the Benefits Enrollment System. If the employee's BELI is 2 or 3, enrollments in the following will be rejected:

- Dental Plan
- Vision Plan
- Legal Plan
- Employee Paid Disability
If the employee's BELI is 4, enrollments in the following will be rejected:

- Medical Plan
- Dental Plan
- Vision Plan
- Legal Plan
- Employee Paid Disability
- Employee Paid Life Insurance
- Dependent Life Insurance
- DepCare

If the employee's BELI is 5 or ?, all enrollments from the IVR will be rejected.

Also, this program edits for already-existing enrollments. If the employee is already enrolled in a plan, then any new enrollments, for that same plan, are rejected. If an Employee is already enrolled in a plan, a transaction to Opt-Out of that plan will be rejected.

The program also edits for whether an employee has already OPT'ed out. If an Employee has Opted Out from a plan, and wishes to enroll in that same plan, the enrollment will be rejected. Likewise, if the employee has already Opted Out and wishes to Opt-Out again, then that Opt-Out request will be rejected.

**PPEC143**

PPEC143 will perform pending premium implied maintenance for Medical plans. If during a New Hire via EDB maintenance an employee does not select a Medical Plan, the employee is established with a default Plan Code (“DM”) and a pending premium row is created for Medical on the PPPPPA table. In addition a Period of Initial Eligibility (PIE) date is calculated from the Hire Date and placed on the PPPBEN row.

If during BES IVR processing an employee “opts out” of Medical, and the PIE Date is in the future, PPEC143 will delete the Medical PPPPPA rows.

If during BES IVR processing an employee selects a Medical Plan, and the PIE Date is in the future, PPEC143 will change the Medical PPPPPA rows to the new Plan Code.
PPEC144

PPEC144 will perform pending premium implied maintenance for Dental plans. If during a New Hire via EDB maintenance an employee does not select a Dental Plan, the employee is established with a default Plan Code (“DD”) and a pending premium row is created for Dental on the PPPPPA table. In addition a Period of Initial Eligibility (PIE) date is calculated from the Hire Date and placed on the PPPBEN row.

If during BES IVR processing an employee “opts out” of Dental, and the PIE Date is in the future, PPEC144 will delete the Dental PPPPPA rows.

If during BES IVR processing an employee selects a Dental Plan, and the PIE Date is in the future, PPEC144 will change the Dental PPPPPA rows to the new Plan Code.

PPEC145

PPEC145 will perform pending premium implied maintenance for Vision plans. If during a New Hire via EDB maintenance an employee does not select a Vision Plan, the employee is established with a default Plan Code (“DV”) and a pending premium row is created for Vision on the PPPPPA table. In addition a Period of Initial Eligibility (PIE) date is calculated from the Hire Date and placed on the PPPBEN row.

If during BES IVR processing an employee “opts out” of Vision, and the PIE Date is in the future, PPEC145 will delete the Vision PPPPPA rows.

If during BES IVR processing an employee selects a Vision Plan, and the PIE Date is in the future, PPEC145 will change the Vision PPPPPA rows to the new Plan Code.

PPBIVRP1

This is a new report program that writes the Exception Report. For this report, additional information is needed from the EDB, specifically the employee's Home Department. An example of this report is attached as Appendix B.

Service Request 13259 describes that for all errors found, a message is to appear on the Exception report, followed by all the employee's BES transaction data. This feature is not fully implemented in this release. A Subsequent release will contain this feature.

This program is executed whenever an exception is encountered. As a result, it is called by many of the programs in this process:

PPP130  PPEC140  PPEC142  PPBIVUTL
PPP020

A fifth Special Process will be added for Daily Benefits Enrollment Maintenance. PPP020 will be changed to accept the new Special Process Indicator value '5' on the Run Specification Record and will update the SCR Special Process Indicator field with that value.

When the Special Process Indicator is entered, the PPP0202 control report will display the following description of the Special Processing Indicator: Special BES Transactions.

See the *Forms* section for the related change to the UPAY630 System Control Record form.

PPP130

Changes to this program include:

1. Changing the validation of the System Control Record (from PPPSCR), so that PPP130 can identify the new process and branch to the appropriate logic,

2. Logic to supervise the various subprocesses of DBEM. This includes:
   - Calling the subprocess PPBIVUTL to load the Benefits Enrollment System transactions into the temporary Processing Table, PPPBIV,
   - Calling the Pre-Edit program PPBIVEDB to load the update information from PPPBIV into the appropriate EDB edit fields,
   - Calling the Routine Manager, specifying a new process group. This will in turn call the edit programs needed for this process. PPP130 calls the Routine Manager already, but additional code is necessary to invoke the new process group when the new process is being run,
   - Calling the report program PPBIVRP2, which creates the Control report for this new process.
Control Table Updates

System Messages Table

The following messages will be added to the System Messages Table:

13-016  MEDICAL ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-017  DENTAL ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-018  VISION ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-019  LEGAL ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-020  EPD ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-021  EMPLOYEE PAID LIFE ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-022  AD&D ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-023  DEPENDENT LIFE ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-024  DEPCARE ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY
13-025  IVR MEDICAL ENROLLMENT BLOCKED - ALREADY ENROLLED
13-026  IVR MEDICAL ENROLLMENT BLOCKED - ALREADY OPTED OUT
13-027  IVR DENTAL ENROLLMENT BLOCKED - ALREADY ENROLLED
13-028  IVR DENTAL ENROLLMENT BLOCKED - ALREADY OPTED OUT
13-029  IVR VISION ENROLLMENT BLOCKED - ALREADY ENROLLED
13-030  IVR VISION ENROLLMENT BLOCKED - ALREADY OPTED OUT
13-031  IVR LEGAL ENROLLMENT BLOCKED - ALREADY ENROLLED
13-032  IVR LEGAL ENROLLMENT BLOCKED - ALREADY OPTED OUT
13-033  IVR MEDICAL OPT OUT BLOCKED - ALREADY ENROLLED
13-034  IVR MEDICAL OPT OUT BLOCKED - ALREADY OPTED OUT
13-035  IVR DENTAL OPT OUT BLOCKED - ALREADY ENROLLED
13-036  IVR DENTAL OPT OUT BLOCKED - ALREADY OPTED OUT
13-037  IVR VISION OPT OUT BLOCKED - ALREADY ENROLLED
13-038  IVR VISION OPT OUT BLOCKED - ALREADY OPTED OUT
13-039  IVR DENTAL OPT OUT BLOCKED - ALREADY ENROLLED
13-040  IVR DENTAL OPT OUT BLOCKED - ALREADY OPTED OUT
13-041  DEPENDENT MED ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED
13-042  DEPENDENT DEN ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED
13-043  DEPENDENT VIS ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED
13-044  DEPENDENT LEG ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED
13-045  NO MATCHING DEPENDENT NUMBER FOUND FOR DEP CHANGE TRANS
13-046  DEPENDENT NUMBER ALREADY EXISTS - DEPENDENT ADD BLOCKED
13-047  IVR EPD ENROLLMENT BLOCKED - ALREADY ENROLLED
13-048  IVR LIFE INSURANCE ENROLLMENT BLOCKED - ALREADY ENROLLED
13-049  IVR DEPENDENT LIFE INS ENROLLMENT BLOCKED - ALREADY ENROLLED
The exact layout of the messages, including their message numbers and severities are detailed in the MSGPROD document included in this release.

Routine Definition Table

- New modules PPEC140, PPEC142, PPEC143, PPEC144, and PPEC145 will be added to this table:

<table>
<thead>
<tr>
<th>ROUTINE</th>
<th>DESCRIPTION</th>
<th>MODULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>BES BELI VALIDATION</td>
<td>PPEC140</td>
</tr>
<tr>
<td>142</td>
<td>BES DEPENDENT VALIDATION</td>
<td>PPEC142</td>
</tr>
<tr>
<td>143</td>
<td>BES HEALTH PENDING PREMIUM</td>
<td>PPEC143</td>
</tr>
<tr>
<td>144</td>
<td>BES DENTAL PENDING PREMIUM</td>
<td>PPEC144</td>
</tr>
<tr>
<td>145</td>
<td>BES VISION PENDING PREMIUM</td>
<td>PPEC145</td>
</tr>
</tbody>
</table>
New modules PPEC140, PPEC142, PPEC143, PPEC144, and PPEC145 to edit the BES transactions will be added to the new Processing Group of 105. Existing modules PPEC722, PPEC723, PPEC724, PPEC725, PPEI709, and PPEI720 to perform the Health Plan Coverage Derivations will also be added to the Processing Group. The routines' details are as follows.

<table>
<thead>
<tr>
<th>Routine</th>
<th>Process Sequence</th>
<th>Routine Type</th>
<th>Corresponding Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>100</td>
<td>C</td>
<td>PPEC140</td>
</tr>
<tr>
<td>142</td>
<td>300</td>
<td>C</td>
<td>PPEC142</td>
</tr>
<tr>
<td>722</td>
<td>400</td>
<td>C</td>
<td>PPEC722</td>
</tr>
<tr>
<td>723</td>
<td>500</td>
<td>C</td>
<td>PPEC723</td>
</tr>
<tr>
<td>724</td>
<td>600</td>
<td>C</td>
<td>PPEC724</td>
</tr>
<tr>
<td>725</td>
<td>700</td>
<td>C</td>
<td>PPEC725</td>
</tr>
<tr>
<td>143</td>
<td>800</td>
<td>C</td>
<td>PPEC143</td>
</tr>
<tr>
<td>144</td>
<td>900</td>
<td>C</td>
<td>PPEC144</td>
</tr>
<tr>
<td>145</td>
<td>1000</td>
<td>C</td>
<td>PPEC145</td>
</tr>
<tr>
<td>709</td>
<td>1100</td>
<td>I</td>
<td>PPEI709</td>
</tr>
<tr>
<td>720</td>
<td>1200</td>
<td>I</td>
<td>PPEI720</td>
</tr>
</tbody>
</table>
Forms

UPAY630:

The new value '5' will be added to the Special Process Indicators to trigger Daily Benefits Enrollment Maintenance processing.
Appendix A - DBEM Process Diagram

This diagram shows the changes and additions to Periodic Maintenance required for the new DBEM process. The key steps of the new process are:

1. PPP020 reads the Run Specification Record for Special Process ‘5’. It updates the System Control Record, which controls which process PPP130 performs.
2. PPP130 is the Periodic Maintenance Program, which controls the new Daily Benefits Maintenance process.
3. PPBIVUTL reads the BES Transaction File and loads transaction data onto the DBEM Temporary Process Table, PPPBIV.
4. PPBIVEDB reads the PPPBIV table for all changes requested for a specific Employee-ID, and maps the new values to the prospective update fields.
5. Called by PPBIVUTL and PPBIVEDB, the report program PPBIVRP1 produces error messages on the Exception Report.

1 This diagram does not document the entire Periodic Maintenance process. It is intended only as an aid in showing the specific additions and changes, and their positions within the process.
6. Edit programs PPEC140, PPEC142, PPEC143, PPEC144, PPEC145 perform editing of the BES changes, and derive the new coverage levels. Programs PPEC722, PPEC723, PPEC724, and PPEC725 perform coverage derivation for Medical, Dental, Vision and Legal plans.

7. This shows the point at which the Employee Data Base (EDB) is updated. No changes have been made to this subprocess.

8. The PPBIVRP2 report program produces the Control Report.
# Appendix B - Exception Report Sample

<table>
<thead>
<tr>
<th>EMPLOYEE ID</th>
<th>SSN</th>
<th>NAME</th>
<th>HOME DEPARTMENT</th>
<th>SEVERITY</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>000050015</td>
<td>5555555015</td>
<td>MULE, RHODA</td>
<td>804918 CHANCELLORS OFFICE</td>
<td>13-050</td>
<td>SEVERITY: 5-TRAN REJECT IVR AD&amp;D ENROLLMENT BLOCKED - ALREADY ENROLLED</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-048</td>
<td>SEVERITY: 5-TRAN REJECT IVR LIFE INSURANCE ENROLLMENT BLOCKED - ALREADY ENROLLED</td>
</tr>
<tr>
<td>000050020</td>
<td></td>
<td></td>
<td></td>
<td>000050052</td>
<td>DACKTUL, TERRY</td>
</tr>
<tr>
<td>000050060</td>
<td>885681238</td>
<td>DE LYON, DAN</td>
<td>827701 HOSPITAL EDUCATION</td>
<td>13-053</td>
<td>SEVERITY: 5-TRAN REJECT EMPLOYEE NOT ELIGIBLE FOR EXPANDED DEPENDENT LIFE INSURANCE</td>
</tr>
<tr>
<td>000059876</td>
<td></td>
<td></td>
<td></td>
<td>13-055</td>
<td>SEVERITY: 5-TRAN REJECT EMPLOYEE ID NOT ON EDB, ALL IVR ACTIVITY REJECTED</td>
</tr>
<tr>
<td>454000013</td>
<td>454000013</td>
<td>MONROW, JAMES</td>
<td>804918 CHANCELLORS OFFICE</td>
<td>13-017</td>
<td>SEVERITY: 5-TRAN REJECT DENTAL ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-018</td>
<td>SEVERITY: 5-TRAN REJECT VISION ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-019</td>
<td>SEVERITY: 5-TRAN REJECT LEGAL ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-020</td>
<td>SEVERITY: 5-TRAN REJECT EPD ENROLLMENT BLOCKED DUE TO BELI INELIGIBILITY</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-042</td>
<td>SEVERITY: 5-TRAN REJECT DEPENDENT DEN ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-043</td>
<td>SEVERITY: 5-TRAN REJECT DEPENDENT VIS ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13-044</td>
<td>SEVERITY: 5-TRAN REJECT DEPENDENT LEG ENROLLMENT BLOCKED - EMPL ENROLLMENT WAS REJECTED</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>454000014</td>
<td>454000014</td>
<td>ROOSEVELT, THEO</td>
<td>804918 CHANCELLORS OFFICE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## IVR New Hire Transaction Errors

### 13-017 Severity: 5-TRAn RejecT
Dental Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-017</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-018 Severity: 5-TRAn RejecT
Vision Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-018</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-019 Severity: 5-TRAn RejecT
Legal Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-019</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-020 Severity: 5-TRAn RejecT
EPD Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-020</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-042 Severity: 5-TRAn RejecT
Dependent Den Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-042</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-043 Severity: 5-TRAn RejecT
Dependent Vis Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-043</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-044 Severity: 5-TRAn RejecT
Dependent Leg Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-044</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-045 Severity: 5-TRAn RejecT
Dependent Med Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-045</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-046 Severity: 5-TRAn RejecT
Dependent Life Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-046</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-047 Severity: 5-TRAn RejecT
Dependent Depcare Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-047</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-048 Severity: 5-TRAn RejecT
Dependent Med Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-048</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-049 Severity: 5-TRAn RejecT
Dependent Den Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-049</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-050 Severity: 5-TRAn RejecT
Dependent Vis Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-050</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-051 Severity: 5-TRAn RejecT
Dependent Leg Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-051</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-052 Severity: 5-TRAn RejecT
Dependent Life Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-052</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-053 Severity: 5-TRAn RejecT
Dependent Depcare Enrollment Blocked Due To Beli Ineligibility

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-053</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-054 Severity: 5-TRAn RejecT
Dependent Med Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-054</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-055 Severity: 5-TRAn RejecT
Dependent Den Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-055</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-056 Severity: 5-TRAn RejecT
Dependent Vis Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-056</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-057 Severity: 5-TRAn RejecT
Dependent Leg Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-057</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13-058 Severity: 5-TRAn RejecT
Dependent Med Enrollment Blocked - Empl Enrollment Was Rejected

<table>
<thead>
<tr>
<th>Employee ID</th>
<th>SSN</th>
<th>Name</th>
<th>Home Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-058</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMPLOYEE ID</td>
<td>SSN</td>
<td>NAME</td>
<td>HOME DEPARTMENT</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>13-042</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-043</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-044</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-021</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-023</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-022</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-041</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-042</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-043</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-044</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DEPENDENT ADD: 05 C1, 454000013 C 1995-05-05 M 803050595 MED DEN VIS LEG

DEPENDENT ADD: 04 S1, 454000013 S 2056-10-31 M 803103156 MED DEN VIS LEG

DEPENDENT ADD: 05 C1, 454000013 C 1995-05-05 M 803050595 MED DEN VIS LEG

DEPENDENT ADD: 05 C1, 454000013 C 1995-05-05 M 803050595 MED DEN VIS LEG

DEPENDENT ADD: 05 C1, 454000013 C 1995-05-05 M 803050595 MED DEN VIS LEG