Detailed Design
RELEASE 1107

Date Conversion Phase III

January 15, 1997
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Information Systems & Computing
Office of the President
University of California
Introduction

Original Service Request 12852 asks that modifications be made to the Payroll/Personnel System (PPS) to allow correct processing of dates falling between the 20th century (1900 through 1999) and the 21st century (2000 through 2999).

The century on any given date that requires a century value for comparison and/or calculation is set using the standard LE/370 date routines. Currently, the default century window in LE/370 is an 80 year window. Since we are currently in the year 96, two-digit years ‘16’ through ‘99’ are considered to be 1916 through 1999; two-digit years ‘00’ through ‘15’ are considered to be 2000 through 2015. Note that the window in LE/370 is set to an 99 year window for birthdate related data elements. Two digit years ‘97’ through ‘99’ are considered to be 1897 through 1899; two-digit years ‘00’ through ‘96’ are considered to be 1900 through 1996.

Phase I of the Date Conversion Project (Release 1025) completed modifications to all of the appropriate programs in the EDB File Maintenance Process. However, only those programs in the Compute Process that were affected by either copymember changes and/or Linkage changes were modified in Phase I. Appropriate programs in the other processes were also modified in Phase I.

Phase II of the Date Conversion Project (release 1087) completed modifications to the rest of the programs in the Compute Process not modified in Phase I. Programs in the other processes were also appropriately modified.

Phase III of the Date Conversion Project will complete the modifications to the rest of the programs in the Payroll/Personnel System not modified in Phase I or Phase II.
Bind Changes

**PPI730**

The following DBRMs will be added to the Bind Member list:

a) PPPRMUT2  
b) PPDOSUT2  
c) PPMSSG2  
d) PPCTTUTL  
e) PPI730

**PPP445**

The following DBRMs will be added to the Bind Member list:

a) PPPRMUT2  
b) PPMSSG2  
c) PPCTTUTL

**PPP450**

The following DBRMs will be added to the Bind Member list:

a) PPMSSG2  
b) PPCTTUTL

**PPP510**

The following DBRMs will be added to the Bind Member list:

a) PPDOSUT2  
b) PPMSSG2  
c) PPCTTUTL

**PPP640**

The following DBRMs will be added to the Bind Member list:

a) PPDOSUT2  
b) PPPRMUT2
PPP650

The following DBRMs will be added to the Bind Member list:

a) PPMSSG2
b) PPCTTUTL

PPP780

The following DBRMs will be added to the Bind Member list:

a) PPDOSUT2
b) PPMSSG2
c) PPCTTUTL

PPP790

The following DBRMs will be added to the Bind Member list:

a) PPDOSUT2
b) PPMSSG2

PPP870

The following DBRMs will be added to the Bind Member list:

a) PPPRMUT2
b) PPMSSG2
c) PPCTTUTL

PPP930

The following DBRM will be added to the Bind Member list:

a) PPCALUTL

PPP950

PPP950 will be a new bind member.

The following DBRMs will be included in the Bind Member list:

a) PPMSSG2
b) PPCTTUTL
The following DBRMs will be included in the Bind Member list:

a) PPPRMUT2
b) PPDOSUT2
c) PPMSSG2
d) PPCTTUTL

PPP980 will be a new bind member.

The following DBRMs will be included in the Bind Member list:

a) PPMSSG2
b) PPCTTUTL
c) PPP980
Copy member Changes

CPPDXP04

This new copymember will be cloned from existing copymember CPPDXP02. DB2 utility PPMSSG2 will be called, instead of VSAM utility PPMSSG.

CPPDXLAL

Existing logic in this copymember will be re-written to access the DB2 PPPCST Table (Costing - Designated Funds Table), instead of the VSAM PPPCST Table.

CPPDXLAR

Existing logic in this copymember will be re-written to access the DB2 PPPCRA Table (Costing - Non-Designated Funds Table), instead of the VSAM PPPCRA Table.
Program Modifications

**PPI730**

a) Copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The date comparison/date calculation routines in the following sections will be modified to include the century:

- 20000-INITIALIZATION-SEC
- 22000-READ-CONTROL-RECS-SEC
- 33165-LOAD-PARTIAL-APPT-ARRAY

**PPP129**

a) Copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) An edit on the input birthdate will be added. The LE/370 date routine will be called to return the appropriate century value for the input birthdate.

**PPP436**

a) Copy members CPWSXDC3 and CPPDXDC3 will be included in the Working Storage and Procedure Division respectively.

b) The appropriate dates will be converted to ISO date formats.

c) The hard-coded century value of ‘19’ will be removed from section 1100-PROCESS-SPEC-CARD. The LE/370 date routine will be called to return the appropriate century value.

d) The program-specific edits on the input date (from spec card) will be removed, and the LE/370 date routine will be called to edit the input date.

e) The century will be included in the date calculation in section 1300-CALC-RETAIN-DATES.
PPP445

a) The hard-coded century value of ‘19’ in the Working Storage section will be removed.

b) The date comparison/date calculation routine in the following section will be modified to include the century:
   - 110-PROGRAM-CONTROL

PPP450

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:
   - B00500-EDIT-SPEC-DATES
   - R01000-READ-PAR

b) The program-specific date edits will be replaced with a call to the LE/370 date routine to edit the input dates in the following paragraph:
   - B00600-DATE-EDIT

PPP480

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:
   - 10000-INITIALIZATION
   - 20000-SETUP-PROCESS-PAR

PPP510

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:
   - INITIALIZATION-0200
   - DATE-LIMITS-0220
   - CHECK-DATE-LIMITS-0230
   - FORMAT-SUPPL-PAYMENTS-3000
PPP625

a) Copy members CPWSXDC3 and CPPDXDC3 will be included in the Working Storage and Procedure Division respectively

b) The date comparison/date calculation routine in the following paragraph will be modified to include the century:

- 4255-MOVE-APPS

PPP640

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- ACCUM-RATE-APPT-LOOP-4200
- DIST-LOOP-4600

PPP650

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- 1000-CHECK-SYSTEM-CTL-REC
- 1100-ENTRY
- 2200-PROCESS-EMPLOYEE-FILE

PPP670

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- SFA-DATE-CHECK
- SFE-DATE-CHECK
- SFM-DATE-CHECK
- SFS-DATE-CHECK
- FDS-FORMAT-THE-REST
- FDE-FORMAT-THE-REST
- FDM-FORMAT-THE-REST
- 0340-VALIDATE-SPEC-EFF-DATE

**PPP680**

a) The hard-coded century value of ‘19’ will be removed from the Working Storage section in 05 level of the 01 level fields FOURTH-LINE-FORMAT, FOURTH-LINE-FORMAT-MAP, FOURTH-LINE-FORMAT-APS, and FOURTH-LINE-FORMAT-EXEC.

b) The hard-coded century value of ‘19’ will be removed from paragraph VERIFY-RUN-SPEC-ENTRY-0200, and a call will be performed to the LE/370 date routine to return the appropriate century value.

b) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- COMPUTE-SPEC-DATE-MAP-0201
- COMPUTE-SPEC-DATE-APS-0202
- COMPUTE-SPEC-DATE-EXEC-0203
- EDB-MATCH-ENTRY-1200
- COMPUTE-SPEC-DATE-EXEC-0203
- APPT-DIST-MATCH-CHECK
- CHECK-EXPIRATIONS
- BUILD-AD-TRANS-ENTRY-1300
- FORMAT-DL-FOR-EMP-ID-1371
- GENERATE-COST-WORK-ENTRY-1500
- FDE-FORMAT-THE-REST
- FDM-FORMAT-THE-REST
PPP750

a) The program-specific date edit in paragraph 3700-DATE-EDIT6-CHAR will be removed, and a call will be performed to the LE/370 date routine to perform the date edit.

b) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

PPP780

a) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The date comparison/date calculation routine in the following paragraph will be modified to include the century:

   • D02200-SEP-DATE

PPP790

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

   • E02650-SEP-DATE
   • G02030-MOVE-SEL-TITLE
   • G04050-CHECK-FOR-NEW-HIRE

PPP864

a) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The value 00 will be added to the values in the 88 level for field VALID-RUN-YY.

c) The hard-coded century value of ‘19’ will be removed from paragraph 5500-CREATE-TIME-STAMP, and the LE/370 date routine will be called to return the appropriate century value for the current year.

PPP870
a) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The hard-coded century value of ‘19’ will be removed from paragraph 6010-CREATE-TIME-STAMP, and the LE/370 date routine will be called to return the appropriate century value for the current year.

PPP910

a) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- C04500-DEVELOP-DISTRIBUTION
- C05300-FUTURE-DATE
- F01300-PROCESS-CHANGES
- J02000-CREATE-EDB-TRANS
- J02200-CREATE-NEW-DIST
- J04000-CREATE-COST
- T03000-FIND-DIST-NO

PPP911

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- B03000-LOAD-CTL-TABLES
- C04500-DEVELOP-DISTRIBUTION
- C05300-FUTURE-DATE
- F01300-PROCESS-CHANGES
- J02000-CREATE-EDB-TRANS
- J02200-CREATE-NEW-DIST
Final

- J04000-CREATE-COST
- T03000-FIND-DIST-NO
- T04000-FIND-FUT-DIST-NO

**PPP912**

a) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- C04500-DEVELOP-DISTRIB-DATA
- C05300-FUTURE-DATE
- F01300-PROCESS-CHANGES
- J02000-CREATE-EDB-TRANS
- J02200-CREATE-NEW-DIST
- J04000-CREATE-COST
- T03000-FIND-DIST-NO
- T04000-FIND-FUT-DIST-NO

**PPP930**

a) The copy members CPWSXDC2 and CPPDXDC2 will be replaced with CPWSXDC3 and CPPDXDC3 respectively.

b) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- B01615-LOAD-SEL-N-PRO-DATES
- C01700-HIRE-DATE-CHECK
- C01710-SEP-DATE-CHECK
- C03100-PRORATE-IF-SPLIT-TRAN
- D01000-DATE-CHECK
PPP950

a) The copy members CPWSXDC3 and CPPDXDC3 will be added to the working storage and Procedural Division sections respectively.

b) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- B01400-EDIT-DATE
- C03000-PROCESS-OPMF
- M04700-DETAIL-LINE

PPP960

Due to the code in copymember CPPDXLAL changed to access the DB2 CST Table, this program will be changed to accommodate the changes made in copymember CPPDXLAL.

PPP980

a) Copy members CPWSXDC3 and CPPDXDC3 will be included in the Working Storage and Procedural Division sections respectively.

b) The date comparison/date calculation routine in the following paragraphs will be modified to include the century:

- M04800-CALC-AUGMENTATION
- M04850-CALC-MONTHS

c) Due to the codes in copymembers CPPDXLAL and CPPDXLAR changed to access the DB2 CRA and CST Tables, this program will be changed to accommodate the changes made in copymembers CPPDXLAL and CPPDXLAR.

USER08

a) The COBOL 01 level WORK-STUDY-INTERFACE defined with copymember CPWSXWSI in the Working Storage will be commented out; copymember CPWSXWSI is not referenced in the program.
JCL Changes

The JCLs will be changed to remove the DD NAMEs CONTROL and CONTROLR from the JCLs that executes the following programs:

Programs

a) PPP445
b) PPP450
c) PPP510
d) PPP640
e) PPP650
f) PPP670
g) PPP780
h) PPP790
i) PPP870
j) PPP950
k) PPP960
l) PPP980
System Control Table Updates

System Messages

Due to the conversion from accessing the VSAM System Messages Table to DB2 System Messages Table, the severity levels of the system messages for the following programs will be converted to the new severity levels:

a) PPP445  
b) PPP450  
c) PPP510  
d) PPP650  
e) PPP780  
f) PPP790  
g) PPP950  
h) PPP960  
i) PPP980

In addition, existing message numbers 73-003 through 73-017 used in program PPI730 will be renumbered to new message numbers not used in program PPP730.
Obsolete Objects

The following objects will become obsolete due to the replacement of “program-specific” views to “whole table” views.

Views

a) PPPV445C_DIS
b) PPPV625B_SCR
c) PPPV780B_APP
d) PPPV780C_DIS
e) PPPV780D_SCR
f) PPPV790E_SCR
g) PPPV790G_EDBAPP

DDL Members

a) PPPV445C
b) PPPV625B
c) PPPV780B
d) PPPV780C
e) PPPV780D
f) PPPV790E
g) PPPV790G

Include Members

a) PPPV445C
b) PPPV625B
c) PPPV780B
d) PPPV780C
e) PPPV780D
f) PPPV790E
g) PPPV790G

Programs

a) PPP425

Due to Wells Fargo Bank acquiring First Interstate Bank, Service Request 10222, dated June 1, 1992, asked that the process which creates the bank reconciliation file be modified to accommodate Controlled Disbursement processing and changes of bank accounts.
To fulfill those requirements, temporary program PPP425 was written per requirements in Service Request 10222 with a Release number of 676, and shipped on June 22, 1992.

This program is no longer needed. Therefore, program PPP425 will be obsoleted.

b) PPWSPUTL

Currently, PPWSPUTL is a utility program which accesses the VSAM Workstudy Control Table.

The Date Conversion Phase III will complete the conversion of those programs which call PPWSPUTL to PPWSPUT2 to access the DB2 Workstudy Table. Therefore, program PPWSPUTL will be obsoleted.

**Copymembers**

Due to PPWSPUTL being obsoleted, the following copymembers will be obsoleted:

a) CPWSXWSI

b) CPWSXWST

**Forms**

a) UPAY777

Due to program PPP425 being obsoleted, form UPAY777 will be obsoleted.