Service Request 100548
PPS New Academic Title Pay Period Code

Technical Specification

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Information Resources & Communications
Office of the President
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### Version History

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1 Introduction

1.1.1 Service Request SR100548
Academic Personnel has requested that a new value for “Academic Pay Period” be added to TCS, the Corporate Title Code System. Since this data is passed into PPS, modifications will be needed in PPS to accommodate this new code.

1.1.2 Error report: ITSH ticket RITM0038556
Program PPP531 has an array overflow condition which causes it to abend with an error message. Most campuses have coded th fix as a local mod. Since the program is being changed in this release, the change should be applied to base as well.

2 Background

The Academic Pay Period code in the TCT is used in edits throughout the system, including CTL maintenance, EDB maintenance, and the compute.

3 Overview of System Modifications

3.1.1 General Utility
Program PPTCTUTL provides TCT data to other programs. The program needs to be changed to allow for the new academic pay period code value.

3.1.2 Compute Process
Program PPETSCED contains salary cap edits on expense transfers. The programs need to be changed to allow for the new academic pay period code value.

3.1.3 EDB Maintenance Process
Programs PPEC002 and PPEI002 contain appointment consistency edits. The programs need to be changed to allow for the new academic pay period code value.

Program PPEI720 performs implied maintenance on salary bases and MCBs. The program needs to be changed to allow for the new academic pay period code value.

3.1.4 Benefits Premium Audit Process
Program PPP570 computes salary bases. The program needs to be changed to allow for the new academic pay period code value.

3.1.5 Monthly Reporting Process
Program PPP531 reports on salary cap errors. The program needs to be changed to allow for the new academic pay period code value. The array overflow problem will also be addressed.

3.1.6 SCO Extract
Program PPP447 creates the SCO extract file. The program needs to be changed to allow for the new academic pay period code value.

3.1.7 CTL Update Process
TCT update transactions from TCS include the Academic Pay Period code. No changes are needed, but the process should be tested with the new value of the code.
3.1.8 ERS Extract Process
Program PPI441 creates the ERS extract. No changes are needed to this program, but since the extract includes the Academic Pay Period code, a test file should be generated and sent to ERS for testing.

4 Design Considerations

4.1 Assumptions and Dependencies

- PPS changes must be installed prior to the TCS changes in SR100547.
- A sample ERS extract file which includes the new academic pay period code value will be provided to the ERS team.

4.2 External Impact
PPS sends an extract to ERS which includes the academic pay period code. That system may need changes to allow for the new value.

5 Mainframe Design

5.1 General Utility

5.1.1 Copylib Members

5.1.1.1 CPLNKTCL
CPLNKTCL defines an EXTERNAL linkage area for PPTCTUTL.

For field XTCL-ACAD-PAY-PERIOD, there are three 88-levels for the current values of academic pay period:

```
 10 XTCL-ACAD-PAY-PERIOD
     PIC X(0001).
   88 XTCL-ACAD-PAY-PERIOD-NOT-APPL VALUE '0'.
   88 XTCL-ACAD-PAY-PERIOD-09-MONTHS VALUE '1'.
   88 XTCL-ACAD-PAY-PERIOD-12-MONTHS VALUE '2'.
```

A new 88 should be added:

```
 88 XTCL-ACAD-PAY-PERIOD-10-MONTHS VALUE '3'.
```

5.1.2 Cobol Programs

5.1.2.1 PPTCTUTL
PPTCTUTL retrieves data from the CTL title code tables.

It uses the academic pay period code to compute the annual rate from the hourly rate stored in the TCT.

The following code is from section 90060-COMPUTE-ANNUAL-RATE. It should be modified so that WSS-PAYSCALE-PERIODS is set to 10 when XTCL-PERSONNEL-PROG-ACADEMIC and XTCL-ACAD-PAY-PERIOD-10-MONTHS (new value).

```
IF XTCL-PERSONNEL-PROG-ACADEMIC AND
```
5.2 Compute

5.2.1 Cobol Programs

5.2.1.1 PPETSCED

PPETSCED is a dual use routine developed to perform salary cap edits on expense transfers. The academic pay period code is used in conjunction with the basis to determine which monthly rate to use.

Working-Storage

In the ART-TABLE-ARRAY, ART-ENTRY, add a new rate called ART-TBL-MNTH-RATE-09-10

Procedure Division

1. In section 1200-LOAD-ART-RATES, add this code to calculate the new 9/10 rate

   ART-TBL-MNTH-RATE-09-10 (ART-X) ROUNDED = (ART-MONTHLY-RATE * 9) / 10

2. The following code is from section 2000-SALARY-CAP-EDIT. The highlighted code should be added.

   IF XTCL-PERSONNEL-PROG-ACADEMIC
      IF XTCL-ACAD-APPT-BASIS-CODE = '1'
         AND XTCL-ACAD-PAY-PERIOD-12-MONTHS
         *----------> THIS TITLE HAS A 9 OVER 12 BASIS PAID OVER
         MOVE ART-TBL-MNTH-RATE-9-12 (LAST-MATCHED-X)
            TO ART-MONTHLY-RATE
      ELSE
      END-IF
   ELSE
      IF XTCL-ACAD-APPT-BASIS-CODE = '2'
         AND XTCL-ACAD-PAY-PERIOD-12-MONTHS
         *----------> THIS TITLE HAS A 10 OVER 12 BASIS PAID OVER
         MOVE ART-TBL-MNTH-RATE-10-12 (LAST-MATCHED-X)
            TO ART-MONTHLY-RATE
      ELSE
      END-IF
   END-IF

   IF XTCL-ACAD-APPT-BASIS-CODE = '1'
      AND XTCL-ACAD-PAY-PERIOD-10-MONTHS
      *----------> THIS TITLE HAS A 9 OVER 10 BASIS PAID OVER
      MOVE ART-TBL-MNTH-RATE-09-10 (LAST-MATCHED-X)
         TO ART-MONTHLY-RATE
   END-IF
5.3 Monthly Reporting Process

5.3.1 Cobol Programs

5.3.1.1 PPP531

PPP531 produces a tab delimited, salary cap error reporting (NIH CAP) file.

Working-Storage

In the ART-TABLE-ARRAY, ART-ENTRY, add a new rate called ART-TBL-MNTH-RATE-09-10
Expand BYA-DOS-ARRAY to 400 entries, and change the value of BYA-DOS-X-MAX to 400.

Procedure Division

1. In section 120-LOAD-ART-RATES, add this code to calculate the new 9/10 rate

\[
\text{ART-TBL-MNTH-RATE-09-10 (ART-X) ROUNDED} = \frac{\text{ART-MONTHLY-RATE} \times 9}{10}
\]

2. In section 220-SET-WARNING-FLAGS, the following code is used to derive the monthly cap. The highlighted code should be added.

```
MOVE ART-TBL-MNTH-RATE-STND (LAST-MATCHED-X)
TO ART-MONTHLY-RATE
IF XTCL-PERSONNEL-PROG-ACADEMIC
   IF XTCL-ACAD-APPT-BASIS-CODE = '1'
      AND XTCL-ACAD-PAY-PERIOD-12-MONTHS
      -----> THIS TITLE HAS A 9 OVER 12 BASIS PAID OVER
      MOVE ART-TBL-MNTH-RATE-9-12 (LAST-MATCHED-X)
      TO ART-MONTHLY-RATE
   ELSE
      IF XTCL-ACAD-APPT-BASIS-CODE = '2'
         AND XTCL-ACAD-PAY-PERIOD-12-MONTHS
         -----> THIS TITLE HAS A 10 OVER 12 BASIS PAID OVER
         MOVE ART-TBL-MNTH-RATE-10-12 (LAST-MATCHED-X)
         TO ART-MONTHLY-RATE
      ELSE
         IF XTCL-ACAD-APPT-BASIS-CODE = '1'
            AND XTCL-ACAD-PAY-PERIOD-10-MONTHS
            -----> THIS TITLE HAS A 9 OVER 10 BASIS PAID OVER
            MOVE ART-TBL-MNTH-RATE-09-10 (LAST-MATCHED-X)
            TO ART-MONTHLY-RATE
      END-IF
   END-IF
END-IF.
```

3. In section 380-DEVELOP-BASIS-PD-OVR, the following code determines what to display in the “basis/paid over column of the tab-delimited report file. The highlighted code should be added.

```
EVALUATE XTCL-ACAD-PAY-PERIOD
WHEN '1'
   MOVE '/09' TO NIHTAB-BASIS-PD-OVR (3:3)
WHEN '2'
   MOVE '/12' TO NIHTAB-BASIS-PD-OVR (3:3)
WHEN '3'
   MOVE '/10' TO NIHTAB-BASIS-PD-OVR (3:3)
WHEN OTHER
   MOVE '/NA' TO NIHTAB-BASIS-PD-OVR (3:3)
```
5.4 **EDB Maintenance Process**

5.4.1 **Cobol Programs**

5.4.1.1 **PPEC002**

PPEC002 performs consistency edits on the title and related fields of an appointment. It edits the academic pay period code against the appointment paid over code.

In section 1130-ACADEMIC-TITLE-CODE, the following code restricts the value of the appointment paid over code to ‘09’ if the title’s academic pay period code is 1 (XTCL-ACAD-PAY-PERIOD-09-MONTHS). The highlighted code should be added.

```
IF XTCL-ACAD-PAY-PERIOD-09-MONTHS
AND APPT-2011-PAID-OVER NOT = '09'
ADD 1 TO KMTA-CTR
MOVE 2 TO KMTA-LENGTH (KMTA-CTR)
MOVE M08256 TO KMTA-MSG-NUMBER (KMTA-CTR)
MOVE MSSG-ACAD-STAFF-APPT
TO KMTA-ACAD-STAFF-APPT (KMTA-CTR)
MOVE MSSG-ACAD-STAFF-EMPL
TO KMTA-ACAD-STAFF-EMPL (KMTA-CTR)
MOVE WS-ROUTINE-TYPE TO KMTA-ROUTINE-TYPE (KMTA-CTR)
MOVE WS-ROUTINE-NUM TO KMTA-ROUTINE-NUM (KMTA-CTR)
END-IF.
```

```
IF XTCL-ACAD-PAY-PERIOD-10-MONTHS
AND APPT-2011-PAID-OVER NOT = '10'
ADD 1 TO KMTA-CTR
MOVE 2 TO KMTA-LENGTH (KMTA-CTR)
MOVE M08256 TO KMTA-MSG-NUMBER (KMTA-CTR)
MOVE MSSG-ACAD-STAFF-APPT
TO KMTA-ACAD-STAFF-APPT (KMTA-CTR)
MOVE MSSG-ACAD-STAFF-EMPL
TO KMTA-ACAD-STAFF-EMPL (KMTA-CTR)
MOVE WS-ROUTINE-TYPE TO KMTA-ROUTINE-TYPE (KMTA-CTR)
MOVE WS-ROUTINE-NUM TO KMTA-ROUTINE-NUM (KMTA-CTR)
END-IF.
```

5.4.1.2 **PPEI002**

PPEI002 performs consistency edits and maintenance on the title and related fields of an appointment. It edits the academic pay period code against the appointment paid over code.

In section 5522-CHECK-ACADEMIC-TITLE, the following code restricts the value of the appointment paid over code to ‘09’ if the title’s academic pay period code is 1 (XTCL-ACAD-PAY-PERIOD-09-MONTHS). The highlighted code should be added.

```
IF XTCL-ACAD-PAY-PERIOD-09-MONTHS
AND APPT-PAID-OVER (APPT-PNTR, 1) NOT = 09
ADD 1 TO KMTA-CTR
MOVE OFF-2011-PAID-OVER TO KMTA-ADA-OFFSET (KMTA-CTR)
```

```
**PPEI720**

PPEI720 performs consistency edits and maintenance on insurance salary bases and the Medical Contribution Salary Bases (MCBs).

In 2100-CHECK-IF-PRORATION-REQD, the PRORATE-ADIST-PAY flag is only set on if academic pay period is 1 (XTCL-ACAD-PAY-PERIOD-09-MONTHS). This code should be modified to also set the flag on if academic pay period is 3 (XTCL-ACAD-PAY-PERIOD-10-MONTHS).

In 2000-PROCESS-APPTS SECTION, add the following highlighted code to always use semester proration for appointments with titles using the new academic code:

```plaintext
IF APPT-TYPE (APPT-PNTR, 1) = '5'
   PERFORM 2100-CHECK-IF-PRORATION-REQD
   IF PRORATE-ADIST-PAY
      **********************************************************************
      **FOR ACAD PAY PERIOD 3 (10 MOS), ALWAYS USE SEMESTER PRORATION
      **********************************************************************
      ************** MOVE WS-PRORATION-RATE TO WS-ACADEMIC-BASIS-PER
      IF XTCL-ACAD-PAY-PERIOD-10-MONTHS
         MOVE WS-TERM-SEM-RATE TO WS-ACADEMIC-BASIS-PER
      ELSE
         MOVE WS-PRORATION-RATE TO WS-ACADEMIC-BASIS-PER
      KEEP WS-PRICE-PRORATION-RATE (KMTA-CTR)
      **********************************************************************
   END-IF.
END-IF.
```

5.4.1.3
5.5 Benefits Premium Audit Process

5.5.1 Cobol Programs

5.5.1.1 PPP570

PPP570 calculates the salary bases of various insurance benefits and generates EDB update transactions (IE, DE, X1) to update the appropriate salary bases.

In section CHECK-IF-PRORATION-REQD-231, the PRORATE-ADIST-PAY flag is only set on if academic pay period is 1 (XTCL-ACAD-PAY-PERIOD-09-MONTHS). This code should be modified to also set the flag on if academic pay period is 3 (XTCL-ACAD-PAY-PERIOD-10-MONTHS).

In PROCESS-NEXT-APPT-230 SECTION, add the following highlighted code to always use semester proration for appointments with titles using the new academic code:

```
IF APPT-TYPE (DIST-SS, 1) = '5'
    PERFORM CHECK-IF-PRORATION-REQD-231
    IF PRORATE-ADIST-PAY
    ***************************************************************
    **FOR ACAD PAY PERIOD 3 (10 MOS), ALWAYS USE SEMESTER PRORATION
    ***************************************************************
    ****************MOVE WS-PRORATION-RATE TO WS-ACADEMIC-BASIS-PER
    IF XTCL-ACAD-PAY-PERIOD-10-MONTHS
    MOVE WS-TERM-SEM-RATE TO WS-ACADEMIC-BASIS-PER
    ELSE
    MOVE WS-PRORATION-RATE TO WS-ACADEMIC-BASIS-PER
    END-IF
    END-IF.
```
5.6 **SCO Extract**

5.6.1 **Cobol Programs**

5.6.1.1 **PPP447**

PPP447 extracts PAR and UCRS data to a tab-delimited file for the California SCO.

In section 42130-GET-ACAD-MIN-MAX, the following code assigns the “months in year” based on the academic pay period code. The months in year is later used to calculate the annual rates for the title. The highlighted code should be added.

```
MOVE ZEROES TO WS-MONTHS-IN-YEAR
EVALUATE TRUE
   WHEN XTCL-ACAD-PAY-PERIOD = '1'
      MOVE 9 TO WS-MONTHS-IN-YEAR
   WHEN XTCL-ACAD-PAY-PERIOD = '3'
      MOVE 10 TO WS-MONTHS-IN-YEAR
   WHEN OTHER
      MOVE 12 TO WS-MONTHS-IN-YEAR
END-EVALUATE.
```

5.7 **CTL Update Process**

TCT update transactions from TCS include the Academic Pay Period code. No changes are needed, but the process should be tested with the new value of the code.

5.8 **ERS Extract Process**

Program PPI441 creates the ERS extract. No changes are needed to this program, but since the extract includes the Academic Pay Period code, a test file should be generated and sent to ERS for testing.
6 Unit Testing Requirements

1. PPTCTUTL
   The change to PPTCTUTL will cause the annual rate for a title code to be correctly computed when a title’s academic pay period code is set to the new value of 3. The annual rate is returned to the calling program in XTCL-RATE-PAY-RATE. This field is not used anywhere in PPS. In order to unit test this change, obtain a copy of the TCT test program TESTCT, modify it to display XTCL-RATE-PAY-RATE, and run it with one of the new title codes. Verify that the correct value is displayed.

2. PPETSCED
   The change to this program will cause the salary cap to be correctly computed when a title’s academic pay period code is set to the new value of 3.
   - Compute the monthly rate cap for the new titles: look at the PPPART table for ART_BEN_ASSMT_TYP = ‘CAP’, ART_ASSMT_RATE_CD = ‘FEDC’. Find the row with the latest effective date. The value of ART_ASSESSMT_RATE is the annual cap, but without the decimal point. To get the monthly cap: 
     \[
     \frac{\left(\frac{\text{ART\_ASSESSMT\_RATE}}{10}\right) \times 9}{10}
     \]
   - Find a record in the PPPTOE table with TOE_APPT_TYPE_CODE = ‘5’ (academic)
   - Modify the TOE record as follows:
     - Change the FAU to 3 404918 19900 0
     - Change the title code to one of the new title codes.
     - Change TOE_RATE to a value higher than the monthly cap.
   - Use the EDTS to enter an expense transfer for the modified record. Enter the “TO” FAU as 3 444918 19900 1
   - Press enter and verify that the following message is generated (may need to press F6 to see all messages):
     35076 PAY RATE GREATER THAN ALLOWABLE CAP FOR FUND SOURCE

3. PPP531
   - Verify that the program no longer produces error message 53-107 due to array overflow.
   - As with PPETSCED, compute the monthly rate cap for the new titles.
   - Find a record in the PPPERN table with APPT_TYPE = ‘5’ (academic)
   - Modify the PPPERN record as follows:
     - Change the title code to one of the new title codes.
     - Change DIST_PAYRATE to a value higher than the monthly cap.
     - Make sure the fund portion of the FAU is present in the Account Fund Profile (PPPFND?) in fund group SALRYCAP.
   - Run PPP531
   - Verify that the following message appears for the modified record:
     53-111 3-WARNING EMPLOYEE SALARY RATE EXCEEDS CAP RATE
   - In the NIHTAB output file, verify that the NIHTAB-BASIS-PD-OVR field includes “/10”.

4. PPEC002
   - Enter an appointment with an academic title code which has TPA_ACAD_PAY_PERD = the new value of ‘3’.
   - Enter a value other than 10 for the field labeled “Pd Ovr”.
   - Press F5 and verify that message “08256 PAID OVER CODE INVALID FOR TITLE” is displayed.

5. PPEI002
   - Temporarily change the online severity of message 08256 to ‘3’
   - Enter the same data as for PPEC002.
   - After seeing message 08256, press F5 again to commit the update.
   - Use IMSG to verify that message 12056 was generated.
   - (Restore the severity of message 08256 to its prior value)
6. **PPEI720**

- Find an employee with the following:
  - Appointment with academic title
  - hired more than a year ago.
- Separate the employee effective more than 120 days ago.
- Rehire the employee with a current hire date, BELI effective date. Set the assigned BELI to the derived value.
  - On the EAPP screen
    - Change the title code to one of the new titles.
    - Change Bas to 09 and Pd Ovr to 10.
    - Set the appointment and distribution start dates to the new hire date.
    - Make a big change in the distribution pay rate so that the MCB will be calculated higher.
  - On the EINS screen, set the effective dates to the new hire date, end dates to 999999. Clear the salary bases.
- After committing the rehire, go to the EINS screen and verify that the re-calculated MCB is prorated, i.e. .8333 * the new annual pay rate.

7. **PPP570**

- Find an employee with a current academic appointment.
- On the EAPP screen, change the title code to one of the new titles, and make a big change in the distribution pay rate so that the MCB will be calculated higher.
- Run PPP570 in ADVC mode.
- In the //IETRANS output file, verify that the salary base in transaction IE is prorated, i.e. .8333 * the new annual pay rate.

8. **PPP447**

- Modify a sequential PAR file to include one of the title codes which has TPA_ACAD_PAY_PERD = the new value of '3'.
- Run PPP447 and verify that the minimum/maximum annual rates are 10 x the minimum and maximum monthly rates for that title in the PPPTPC table.