Service Request 83705
BW Conversion VPB DOS Code

Technical Specification

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Prepared by Caroline Rider

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

<table>
<thead>
<tr>
<th>Version #</th>
<th>Date</th>
<th>Revised By</th>
<th>Reason for Change</th>
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<tbody>
<tr>
<td>1.0</td>
<td>07/06/2012</td>
<td>Caroline Rider</td>
<td>Initial draft</td>
</tr>
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<td>1.1</td>
<td>07/23/2012</td>
<td>Caroline Rider</td>
<td>Unit test detail, program change descriptions</td>
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<tr>
<td>1.2</td>
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<td>Caroline Rider</td>
<td>Remove VPB from processing in PPGRSTIM if the hours/time is zero</td>
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<tr>
<td>1.3</td>
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<td>Caroline Rider</td>
<td>Do not allow blank/zero VPB hours in overtime/leave time reporting columns</td>
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<td>Caroline Rider</td>
<td>Noted the differences in pay edi behavior between batch and online</td>
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1 Introduction

As part of the migration to UCPath, all locations will be moving, with some exceptions, exempt employees to the MO pay cycle and non-exempt employees to the BW pay cycle; only the MO and BW cycles will be supported in UCPath. Locations may offer vacation buy-outs to employees to ease the transition from one pay cycle to another.

1.1.1 Service Request SR83705

SR83705 asks for the implementation of a new DOS code (VPB) that behaves identically to TRM (by reducing vacation balances, generating payment, and reimbursing departments who are using PPS leave costing). The exceptions to the TRM behavior are that VPB should not substitute the EDB vacation hours balance for VPB time/hours that are entered as blank or zero, and VPB with blank or zero hours should not be allowed in the overtime/leave time reporting columns.

2 Background

Currently, some of DOS code TRM’s behavior is controlled by attributes of the DOS code, but there are several places where there is coding in programs specific to DOS code TRM:

- pay edit
- compute
- expense distribution
- leave reporting
- ORCA/rush checks

3 Overview of System Modifications

3.1.1 Pay Edit Process

The same rules that apply to processing for TRM also apply to VPB (percent time, if entered as first DOS code, will be treated as hours, warn if hours reported are more than vacation balance). Do not allow VPB with blank or zero hours to be entered in the overtime/leave time reporting columns. (Note that batch entry of blank hours in the overtime/leave reporting columns is rejected, and zero hours are accepted, and online entry of blank or zero hours are both rejected. This behavior is consistent with the behavior for other non-TRM DOS codes.)

3.1.2 Compute Process

TRM (and now VPB) time is always treated as hours, not percent; leave activity associated with SDF is always flagged as pay only (no hours), include in buckets with TRM and PTT, do not override FAU; include hours in vacation hours taken on pay stub/advice. Do not substitute the EDB vacation hours balance for VPB time/hours that are zero.

3.1.3 Expense Distribution Process

Include VPB amounts with TRM amounts, exclude VPB from SMS assessments, reimburse departments from the leave liability pool for VPB; flag and bypass duplicate TOE alternate key if VPB.

3.1.4 Leave Reporting Process

Include VPB in vacation hours taken.
3.1.5 ORCA/Rush Checks Process
Include VPB in buckets with TRM and PTT for overpayments and rush checks.

4 Design Considerations

4.1 Assumptions and Dependencies

- VPB behavior is to be identical to TRM in all ways, except where noted.

5 Testing Considerations
TRM and VPB should produce identical results.

6 Mainframe Design

6.1 Pay Edit Process

6.1.1 Cobol Programs

6.1.1.1 PPEDTPAY

PPEDTPAY performs common edits for pay transactions (TE, TX, RX, AP, LX). It will be modified to treat VPB time as hours if entered as a percent in the first DOS column, to ensure time is zeros if entered as blank with VPB, and to check the vacation balance when VPB is used. Do not allow VPB with blank or zero hours to be entered in the overtime/leave time reporting columns.

PROCEDURE DIVISION
Replace

IF XTAT-1ST-DOS = 'TRM' with
 IF (XTAT-1ST-DOS = 'TRM' OR 'VPB')

Replace
 IF XTAT-2ND-DOS = 'VAC' OR 'TRM' with
 IF (XTAT-2ND-DOS = 'VAC' OR 'TRM' OR 'VPB')

Replace
 IF XTAT-3RD-DOS = 'VAC' OR 'TRM' with
 IF (XTAT-3RD-DOS = 'VAC' OR 'TRM' OR 'VPB')

6.1.1.2 PPNTEDAP

PPNTEDAP generates the text for EDAP (AP transaction) PANs. It will be modified to always display VPB time as hours.

PROCEDURE DIVISION
Insert
OR (XTAT-1ST-DOS OF CCWSTHFT-ITEM (THF-ARRAY-X) = 'VPB')
after
OR (XTAT-1ST-DOS OF CCWSTHFT-ITEM (THF-ARRAY-X) = 'TRM')

6.1.1.3 PPNTEDLR

PPNTEDLR generates the text for EDLR (LX/RX transaction) PANs. It will be modified to always display VPB time as hours.

PROCEDURE DIVISION
Insert
OR (XTAT-1ST-DOS OF CCWSTHFT-ITEM (THF-ARRAY-X) = 'VPB')
after
OR (XTAT-1ST-DOS OF CCWSTHFT-ITEM (THF-ARRAY-X) = 'TRM')

6.1.1.4 PPVRTHFO

PPVRTHFO performs value and range edits for online THF entry/update. It will be modified to always treat VPB time as hours.

WORKING-STORAGE
Insert
88 WS-NEW-DOS-VPB VALUE 'VPB'.
after
88 WS-NEW-DOS-TRM VALUE 'TRM'.

Insert
88 WS-OLD-DOS-VPB VALUE 'VPB'.
after
88 WS-OLD-DOS-TRM VALUE 'TRM'.

PROCEDURE DIVISION
Insert
OR WS-OLD-DOS-VPB
after
IF WS-OLD-DOS-TRM

Insert
OR WS-NEW-DOS-VPB
after
IF WS-NEW-DOS-TRM

6.1.2 Control Table Updates

6.1.2.1 CTL Database

UPAY forms are included with the requirements document and will contain detailed CTL update transactions. These will be keyed by the programmer and applied to the CTL database by running program PPP004.
6.1.2.1.1 System Messages Table

Message 36-107 should be modified:
TIME WILL BE TREATED AS HOURS FOR TRM AND VPB DOS CODES

6.2 Compute Process

6.2.1 Cobol Programs

6.2.1.1 PPP380

PPP380 creates the Consolidated Payroll Activity (CPA) file from the Transaction Holding File. It will be modified to always treat VPB time entered in the first DOS column of transactions as hours.

**PROCEDURE DIVISION**

Replace

```
AND (XTAT-1ST-DOS = 'TRM' OR 'PTT'))
```

with

```
AND (XTAT-1ST-DOS = 'TRM' OR 'PTT' OR 'VPB'))
```

6.2.1.2 PPCPAPAY

PPCPAPAY builds the Consolidated Payroll Activity file for TX, TE, LX RX, and AP transactions. It will be modified to always treat VPB time entered in the first DOS column of transactions as hours, and to set the RAI indicator to ‘A’ if VPB is in the second or third DOS column and the first DOS column is ‘SDF’.

**PROCEDURE DIVISION**

Insert

```
OR XTAT-1ST-DOS = 'VPB'
```

after

```
OR XTAT-1ST-DOS = 'PTT'
```

Insert

```
OR DOS-CHECK = 'VPB'
```

after

```
OR DOS-CHECK = 'CMP'
```

6.2.1.3 PPGRSERN

PPGRSERN is called by gross pay calculation programs to calculate earnings. It will be modified to make VPB subject to rate re-calculation just as TRM is, and to accumulate VPB with TRM for tax purposes.

**PROCEDURE DIVISION**

Insert

```
OR ACCT-WORK-EARN-TYP = 'VPB'
```

after

```
OR ACCT-WORK-EARN-TYP = 'PTT'
```

Insert

```
OR 'VPB'
```

after

```
OR 'PTT'
```
Insert

\[ \text{AND (ACCT-WORK-EARN-TYP NOT = 'VPB')} \]

after

\[ \text{AND (ACCT-WORK-EARN-TYP NOT = 'PTT')} \]

### 6.2.1.4 PPGRSTIM

PPGRSTIM is called by gross pay calculation programs to process the time input on transactions. It will be modified to always display the time for VPB as hours.

**PROCEDURE DIVISION**

Insert

\[ \text{OR 'VPB'} \]

after

\[ \text{OR 'FUA'} \]

### 6.2.1.5 PPP420

PPP420 produces checks, direct deposit advice forms, the reconciliation interface file and reports from the compute process. It will be modified to include VPB time in the vacation used total.

**WORKING-STORAGE**

Insert

\[ \text{03 VAC-B-PAID-DOS PIC XXX VALUE 'VPB'}. \]

after

\[ \text{03 VAC-T-PAID-DOS PIC XXX VALUE 'TRM'}. \]

**PROCEDURE DIVISION**

Insert

\[ \text{VAC-B-PAID-DOS OR} \]

after

\[ \text{VAC-T-PAID-DOS OR} \]

Insert

\[ \text{VAC-B-PAID-DOS OR} \]

after

\[ \text{VAC-T-PAID-DOS OR} \]

Insert

\[ \text{OR VAC-B-PAID-DOS} \]

after

\[ \text{VAC-T-PAID-DOS} \]
6.3 Expense Distribution Process

6.3.1 Cobol Programs

6.3.1.1 PPP520

PPP520 creates the Expense Distribution Work file (EDW) as an intermediate step of expense distribution. It will be modified to include VPB in the list of DOS codes for which some expense transfers are not allowed, to perform leave usage reimbursement for VPB, to exclude it from any SMS benefit proration, and to exclude it from selection from the prior month TOE data when identifying the FAUs to use for uncharged benefits amounts.

**WORKING-STORAGE**

Insert 'VPB',
after
88 WS-DOS-TRANSFER-NOT-ALLOWED VALUE 'TRM',

**PROCEDURE DIVISION**

Insert
OR EDT-DOS (LV) IS EQUAL TO 'VPB'
after
IF EDT-DOS (LV) IS EQUAL TO 'TRM'

Replace
IF EDT-DOS (LV) = 'VAC' OR 'VLA' OR 'TRM'
with
IF EDT-DOS (LV) = 'VAC' OR 'VLA' OR 'TRM' OR 'VPB'

Insert
OR 'VPB'
after
OR 'FUT'

Insert
OR DOS-CONSTANT-VPB
after
OR DOS-CONSTANT-TRM

6.3.1.2 PPP540

PPP540 maintains the Transfer Of Expense database table (TOE). It will be modified to display and bypass VPB data if there is a duplicate alternate key.

**PROCEDURE DIVISION**

Replace
IF TOEU-DOS = 'TRM'
    DISPLAY '*TRM BYPASSED DUP ALT KEY ' 
with
IF (TOEU-DOS = 'TRM' OR 'VPB')
DISPLAY '*TRM/VPB BYPASSED DUP ALT KEY '

6.3.2 Copy Members

6.3.2.1 CPWSDOSC
CPWSDOSC defines several DOS constants. It will be modified to include VPB.
Insert
after
88 DOS-CONSTANT-VPB VALUE 'VPB'.
88 DOS-CONSTANT-TRM VALUE 'TRM'.

6.4 Leave Reporting

6.4.1 Cobol Programs

6.4.1.1 PPP640
PPP640 produces various leave liability reports from a combination of monthly PAR and current EDB data. It will be modified to include VPB with vacation taken.
PROCEDURE DIVISION
Replace
IF XPAR-DOS (TRANSACTION-NO) = 'VAC' OR 'TRM'
with
IF XPAR-DOS (TRANSACTION-NO) = 'VAC' OR 'TRM' OR 'VPB'

6.5 ORCA/Rush Checks

6.5.1 Cobol Programs

6.5.1.1 PPOROVPY
PPOROVPY processes overpayments for ORCA processing. It will be modified to accumulate VPB with TRM for tax purposes.
PROCEDURE DIVISION
Insert
after all four instances of
OR 'VPB'
OR 'PTT'

6.5.1.2 PPRCGRSS
PPRCGRSS calculates gross pay for online Rush Check processing. It will be modified to accumulate VPB with TRM for tax purposes.
PROCEDURE DIVISION

Insert

OR (ACCT-WORK-EARN-TYP = 'VPB')

after

OR (ACCT-WORK-EARN-TYP = 'TRM')

Insert

OR = 'VPB'

after

OR = 'PTT'

Insert

AND ACCT-WORK-EARN-TYP NOT = 'VPB'

after

IF ACCT-WORK-EARN-TYP NOT = 'TRM'

7 Unit Testing Requirements

7.1 Pay Edit

Create pay transactions for TRM and VPB – any of AP, LX, TX, or TE transaction types can be used. Transactions should be set up with TRM/VPB in the first DOS code column for some, and in the second or third DOS code column for others. If TRM/VPB is in the second or third column, there should be transactions with first DOS code column set to blank, REG, and SDF. Pay rates and time should be entered as a mix of hourly rates with hourly time, monthly/biweekly rates with hourly time, monthly/biweekly rates with percent time. Some employees should have vacation balances of zero or low amounts (so the amount reported in the transaction is greater than the balance), and some should have high balances (so the amount is less than the balance). Include transactions with a blank or zero time/hours for TRM/VPB.

The transactions should be tested in batch (PPP350/PPP360/PPP370) and online – the transactions should behave the same way in both.

7.2 Compute

The transactions that have passed the pay edit process should then go through the rest of the compute (PPP380 through at PPP440. The TRM and VPB transactions should pay employees and reduce the vacation balances. TRM transactions with blank/zero hours/time will use the EDB vacation balance; VPB transactions will not.

7.3 Expense Distribution

Run PPP460 with the PAR file from the compute (to ensure the PAR file is in the correct order), then run the resulting merged PAR file in Expense Distribution (PPP500/PPP520/PPP530). TRM and VPB should appear on the activity for account 115310, and should appear as both positive and negative amounts on the department FAU pages.

For PPP540, first run it with the TOEU file from Expense Distribution, then create an extract of the sequential TOEU file with some TRM and VPB and other DOS code entries; modify the TOE-ET-PAGE-LINE values in the extract records to be unique – for example, if the highest value for page-line is 00107, the selected records with page-line numbers 00nnn could be 01nnn. Then run PPP540 with the extracted TOEU file to trigger DISPLAYed message for TRM/VPB and message 54-008 for all others.
7.4 **Leave Reporting**

Run PPP640 with the merged PAR file. TRM and VPB should both be counted in the vacation used amounts.

7.5 **ORCA/Rush Checks**

Use OPT1 to create rush checks with VPB and TRM (again, AP, LX, TX, TE are good transaction types). Use ORCA functions to create cancellations and overpayments for TRM and VPB earnings. (There are probably no VPB DOS codes in any of the PAR files, but TRM records can be used if a TRM DOS code in the DB2 PAR file is manually changed to VPB prior to the ORCA activity.)