Tax Rates – Date Change

This bulletin describes some information for developers with vertical applications. Such applications **may** need to be modified after the application of the following group of service packs: ZM60_000204_000, ZP60_000168_000, ZC60_000095_000, ZD60_000178_000, ZQ60_000008_000, ZG60_000069_000, ZS60_000129_000 and ZO60_000061_000.

The Enhancement Note ZM60_000204.doc, issued with this service pack group, fully describes the enhancement to Global 3000. This bulletin includes extra information for software developers.

To allow resellers sufficient time to update their own tailored code after the above service packs have been applied, the new feature will be controlled by the new System Parameter "Hold multiple tax rates for each tax code". **Important Note**: Until this new System Parameter (located in Administration Parameters/Operating Options) is set it will not be possible to amend or create tax codes or tax rates.

After the application of the above service pack group, and subsequent enabling of the "Hold multiple tax rates for each tax code" System Parameter the database field TXTXPC on record DBPARAS:TX will no longer used by Global 3000. This field will be set to the special value 99.99 on all records. Note that this field will be removed from the next version of the DIPARAS Data Dictionary. **Any application code referencing this field must be modified**. This bulletin describes the changes made to the Global 3000 V6.0 Applications and the routines available to replace the use of this field.

NOTE: These changes are only required to applications using record TX within the V6.0 PARAS database. We have no plans to port these changes to Global-3000 V5.0 so tailored code compiled against the V5.0 PARAS database will not be affected.

Changes to Global 3000
The following changes have been made to the tax code record (DBPARAS:TX) and the Global 3000 V6.0 application:

- The rate field (TXTXPC) is no longer used and is now set to 99.99 when a new tax code is created;

- Tax rates are now held on DBPARAS:FR records. The start date for the rate is held in field FRDTE1 and the expiry date is held in field FRDTE2. The rate is held as a PIC 9(2,2) COMP and redefines field FRFRM3. The primary index of the FR records is set as follows:

  FRCOID   Set to "TR"
  FRFRME   Set to "DBPARAS"
  FRMFID   Contains the tax code (TXTXCD)
  FROPID   Redefined as PIC 9(9) COMP and set to a sequence number (generated by fetching the last FR record for the tax code and adding 1 to its sequence number, alternatively if a range is inserted in-between existing ranges the FR records for the tax code are re-numbered).

- Two new DLM routines have been created to accept a passed tax code and date. These parameters are used to locate the correct rate record and populate the following **global** data area. The global data area is intended to be used in place of the TX record. All Global 3000 V6.0 application programs have been updated to remove any ACCESS PARAS:TX statements and replace all usage of fields from the TX record with the corresponding fields within the following data block:

```
01     TX%BLOCK
  03   T%TXCD      PIC X(2)    * Tax code
  03   T%NAME      PIC X(20)   * Tax code name/description
  03   T%TXPC      PIC 9(2,2)C * Percentage rate
  03   T%SDTE      PIC DATE    * Start date for percentage rate
  03   T%EDTE      PIC DATE    * Expiry date for percentage rate
```

- The tax code look-up window was previously declared as copy book PX within copy library S.XXC. This copy book has now been removed and replaced with a DLM routine (see below).

The DLM routines TX%TAXCODE and TX%CHECK-TAXCODE (described below) automatically check to see if the passed tax code has been 'upgraded' to store its rates for date ranges. This upgrade process involves creating a rate record (DBPARAS:FR) for the existing rate (TXTXPC) which is valid for all dates, it then sets TXTXPC to 99.99.

Suggested Changes to Tailored Applications
The DLM routines (see below) have been created to ensure that updating an application program to use the new rates records is (in most cases) simply a find

and replace exercise. The process involved in updating an application program to use the new format rates records is typically as follows:

- Remove the ACCESS statement for record DBPARAS:TX.

- Replace any FETCH TXPRI statements with a call to either TX%TAXCODE (passing the code and transaction date) if the rate is required or TX%CHECK-TAXCODE (passing just the tax code) if the existence of the tax code is being validated (e.g. from within the validation routine for a tax code prompt in a window).

- Replace any tax code look-up windows (copy book PX from S.XXC) with a call to TX%LOOKUP-TAXCODE.

- Replace all references of field TXTXCD with T%TXCD.

- Replace all references of field TXNAME with T%NAME.

- Replace all references of field TXTXPC with T%TXPC.

New DLM Routines
The following entry points will be available once the Tax Rates Date Change service pack group has been applied:

SW044	Tax Code Look-up DLM
New DLM SW044 has been created. It contains the following entry point: **TX%LOOKUP-TAXCODE** which provides a simple tax code lockup window and returns the user selected tax code (PIC X(2)) or signals an exception if they key <ESC>, press the cancel button or close the window. Note, when a tax code is selected its tax code and description are moved to the corresponding fields in the global data block defined in DLM CO033. The window contains the following three fields, tax code, description and 'Today's Rate' (as per window LM520B_WX). It has three buttons, **Rates** (which displays a further window listing all the rates defined for the tax code), **Select** (selects the current tax code) and **Cancel**.	

CO033	Tax Code DLM
New DLM CO033 contains three entry points: **TX%TAXCODE** accepts a PIC X(2) tax code and a date, it populates a global data block (see below) containing the tax code, description, percentage rate, start date and expiry date.	

This routine fetches the tax record and immediately checks to determine if the passed tax code has an FR Rates Record (i.e. it checks to see if the tax code has been upgraded). If an FR Rates Record does not exist (and TXTXPC is not = 99.99) a Rates Record is created for the existing percentage rate (TXTXPC) which is valid for all dates. It then sets TXTXPC to 99.99 and rewrites the TX record.

The supplied date is then checked against the date ranges on each of the FR records for the supplied tax code (starting with the last). When an FR record with the date range in which the passed date falls is located the global data block is populated and the routine exits back to the calling frame. If the passed date does not correspond to any of the date ranges on FR records an exception 1 is signalled to indicate that there is no valid tax rate for the supplied date. Note that routine does not issue an error message. Any error messages must be displayed by the calling process.

Note: A third optional parameter can be passed to this routine, It is a PIC 9(9) COMP (literals cannot be passed) and is primarily used for rate maintenance, it can be set to the sequence number of an FR rates record which is to be ignored when checking to see if there is a rate in force for the supplied date. Alternatively, it can be set to the value -999999999 which causes the routine to skip the automatic upgrade of the tax code (this is used when a new tax code is created).

TX%CHECK-TAXCODE accepts a PIC X(2) tax code, it only populates the global data block (see below) with **ONLY** the tax code and description (the percentage rate, start date and expiry date are **NOT** established by this routine). This routine is used to validate the existence of the supplied tax code. Note that this routine also contains the logic to check for, and automatically upgrade, tax codes.

TX%RATE-ERROR accepts a PIC X(2) tax code and a date and displays a standard error message informing the user that the passed tax code has no valid rate for the supplied date.

Global Data Block
The global data block populated by the above routines is declared as follows:
```
01 TX%BLOCK
   03 T%TXCD  PIC X(2)      - Tax Code.
   03 T%NAME  PIC X(20)     - Tax code description.
   03 T%TXPC  PIC 9(2,2) C  - Percentage rate.
   03 T%SDTE  PIC DATE      - Start date for percentage rate.
   03 T%EDTE  PIC DATE      - Expiry date for percentage rate.
```