

# Batch Detail Design

## I. Functional Area

Inventory

## II. Module Affected

postsupmth.pc

## III. Design Overview

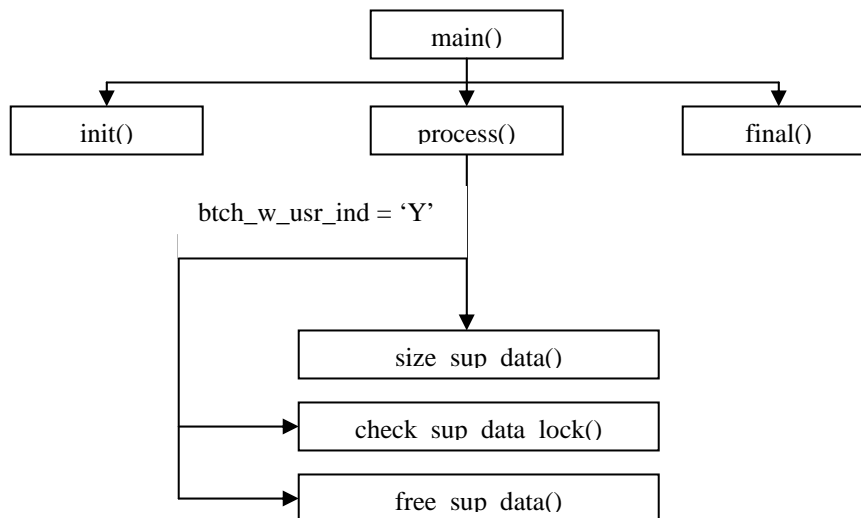
The supmth batch program processes records from the SUP\_DATA table by department/supplier/transaction type where the date is within the last\_eom\_date\_unit and next\_eom\_date\_unit from the SYSTEM\_VARIABLES table. After processing, a record is inserted in the SUP\_MONTH table for each department/supplier combination. Records in the SUP\_DATA table that have already been processed are deleted through the postsupmth batch program. Prior to deletion, these records are checked for locks. If no locks are encountered, records are then deleted from the table. Otherwise, they are inserted in the batch\_lock\_log table and are skipped from deletion.

The SYSTEM\_OPTIONS table was modified to include a new indicator called the Batch with Online Users (btch\_w\_usr\_ind) field that determines whether users can be in the system at any given time. If the Batch with Online User indicator is set to 'Y' batch programs will be run while there are on-line users in the system, resulting in the need to modify some batch programs to handle locking issues that may be encountered.

## IV. Stored Procedures / Shared Modules (Maintainability)

N/A

## V. Program Flow



## VI. Function Level Description

**Declare** a fetch array struct to hold array-fetched records from the driving cursor.

**Declare driving cursor** The cursor picks up records from the SUP\_DATA table where the day date is within the last\_eom\_date\_unit and next\_eom\_date\_unit.

**Main():** Standard Retek main function. Validates input parameters, calls init, process and final. Logs appropriate message.

**Init():** Standard Retek init function. Declare a cursor that fetches system\_options.btch\_w\_usr\_ind, period.vdate, system\_variables.last\_eom\_date\_unit, and system\_variables.next\_eom\_date\_unit values. Calls retek\_init().

**Process():** Declare local variables for end of array flag, return values, total records processed, and number of records to process. Check the value of btch\_w\_usr\_ind:

- If it is set to 'N', delete from the SUP\_DATA table where the day date is within the last\_eom\_date\_unit and next\_eom\_date\_unit.
- If it is set to 'Y':
  - Open the c\_sup\_data cursor and call size\_sup\_data().
  - In a while loop (while the no record found indicator is not set)
    - Array fetch records from the current driving cursor and insert into the SUP\_DATA\_LOCK\_TEMP table.
    - Call check\_sup\_data\_lock().
    - Check the value returned by the check\_sup\_data\_lock function. If a lock is encountered, insert the array of records into the batch\_lock\_log table and then delete records from the SUP\_DATA\_LOCK\_TEMP table.
    - Delete from the SUP\_DATA table where rowid is equal to the rowid fetched from the cursor.
    - Issue a commit using retek\_force\_commit().
  - Close the c\_sup\_data cursor.
  - Call free\_sup\_data().

**Check\_sup\_data\_lock():** Declare a cursor that will lock records on SUP\_DATA table based on rowid.

**Size\_sup\_data():** Sizes the fetch array to the commit size.

**Free\_sup\_data():** Frees fetch array.

**Final():** Standard Retek final function. Calls retek\_close().

## VII. Input Specifications

### 'Table-To-Table'

Select data from:

Table Name	Column Name	Column Type	Transformation
SYSTEM_OPTIONS	BTCH_W_USR_IND	VARCHAR2(1)	NONE
PERIOD	VDATE	DATE	NONE
SYSTEM_VARIABLES	LAST_EOM_DATE_UNIT	DATE	NONE
SYSTEM_VARIABLES	NEXT_EOM_DATE_UNIT	DATE	NONE
SUP_DATA	DEPT	NUMBER(4)	NONE
SUP_DATA	SUPPLIER	NUMBER(10)	NONE
SUP_DATA_LOCK_TEMP	DEPT	NUMBER(4)	NONE
SUP_DATA_LOCK_TEMP	SUPPLIER	NUMBER(10)	NONE



SUP_DATA_LOCK_TEMP	ROW_ID	ROWID	NONE
USER_OBJECTS	OBJECT_NAME	VARCHAR2(128)	NONE
USER_OBJECTS	OBJECT_ID	NUMBER	NONE
PUBLIC_DEPENDENCY	REFERENCE_OBJECT_ID	NUMBER	NONE

## VIII. Output Specifications

### 'Table-To-Table'

**Delete from:** SUP\_DATA, BATCH\_LOCK\_LOG, and SUP\_DATA\_LOCK\_TEMP.

### Insert into:

Table Name	Column Name	Column Type	Transformation
SUP_DATA_LOCK_TEMP	DEPT	NUMBER(4)	NONE
SUP_DATA_LOCK_TEMP	SUPPLIER	NUMBER(10)	NONE
SUP_DATA_LOCK_TEMP	ROW_ID	ROWID	NONE
BATCH_LOCK_LOG	PROGRAM_NAME	VARCHAR2(25)	NONE
BATCH_LOCK_LOG	TABLE_NAME	VARCHAR2(32)	NONE
BATCH_LOCK_LOG	KEY_VALUE1	VARCHAR2(25)	NONE
BATCH_LOCK_LOG	KEY_VALUE2	VARCHAR2(25)	NONE
BATCH_LOCK_LOG	KEY_ROWID	ROWID	NONE
BATCH_LOCK_LOG	LOCKED_DATE	DATE	NONE

## IX. Scheduling Considerations

This module must be run after supmth.

## X. Locking Strategy

Solution #1 – Bulk Locking

## XI. Restart/Recovery

Restart/Recovery is inherent because it deletes from the SUP\_DATA table. Records that have the day date within the last\_eom\_date\_unit and next\_eom\_date\_unit, and are still existing in the table during restart are the records that should be deleted.

## XII. Performance Considerations

N/A

## XIII. Security Considerations

N/A



#### XIV. Unit Test Considerations

- Run the program with btch\_w\_usr\_ind set to 'N' and there are no locked records.
- Run the program with btch\_w\_usr\_ind set to 'N' and there are locked records.
- Run the program with btch\_w\_usr\_ind set to 'Y' and there are no locked records.
- Run the program with btch\_w\_usr\_ind set to 'Y' and there are some locked records.
- Run the program with btch\_w\_usr\_ind set to 'Y' and some of the locks on the records have been released.
- Run the program with btch\_w\_usr\_ind set to 'Y' and all of the locks on the records have been released.

#### XV. Design Assumptions

N/A

#### XVI. Outstanding Design Issues

N/A

Issue Description	Priority	Resolution

#### XVII. Approval and Distribution

The detailed design should be approved by:

Title	Name
Design Lead	

The detailed design should be distributed to:

Title	Name
Quality Control Lead	

#### XVIII. Appendix

