```
1
     DROP VIEW ADD ORS.MATCH METRICS;
 3
     CREATE OR REPLACE FORCE VIEW ADD ORS.MATCH METRICS
     (METRIC NAME, METRIC COUNT)
 5
     SELECT 'a) Count Accounts' AS METRIC NAME, CAST (COUNT (*) AS varchar2 (48)) AS METRIC COUNT
     FROM C HM ACCOUNTS
7
     UNION
8
     SELECT 'b) Count Tokens' AS METRIC NAME, CAST(COUNT(*) AS varchar2(48)) AS METRIC COUNT FROM
     C HM ACCOUNTS STRP
9
     UNION
10
     SELECT 'c) Count EMI' AS METRIC NAME, CAST(COUNT(*) AS varchar2(48)) AS METRIC COUNT FROM
     C HM ACCOUNTS EMI
     UNION
11
     SELECT 'd) EMI Source ' || EMI.SOURCE NAME AS METRIC NAME, CAST (COUNT (EMI.SOURCE NAME ) AS
12
     varchar2(48)) AS METRIC COUNT FROM C HM ACCOUNTS EMI EMI GROUP BY EMI.SOURCE NAME
13
     UNION
     SELECT 'e) Count EMO' AS METRIC NAME, CAST(COUNT(*) AS varchar2(48)) AS METRIC COUNT FROM
14
     C HM ACCOUNTS EMO
15
     UNION
16
     SELECT 'f) EMI Matched' AS METRIC NAME, CAST(COUNT(EMI.SOURCE KEY) AS varchar2(48)) AS
     METRIC COUNT FROM C HM ACCOUNTS EMI EMI WHERE EMI.SOURCE KEY IN(SELECT EMO.SOURCE KEY FROM
     C HM ACCOUNTS EMO EMO)
17
     UNION
18
     SELECT 'g) EMI not Matched' AS METRIC NAME, CAST (COUNT (EMI.SOURCE KEY) AS varchar2 (48)) AS
     METRIC COUNT FROM C HM ACCOUNTS EMI EMI WHERE EMI.SOURCE KEY NOT IN (SELECT EMO.SOURCE KEY
     FROM C HM ACCOUNTS EMO EMO)
19
     UNION
20
     SELECT 'h) EMO Avg. Matched' AS METRIC NAME, CAST (AVG (COUNT (EMO.SOURCE KEY)) AS varchar2(8))
     AS METRIC COUNT FROM C HM ACCOUNTS EMO EMO GROUP BY EMO.SOURCE KEY
21
     UNION
     SELECT 'i) Rule ' || EMO.RULE NO || ' : ' || EMO.SOURCE NAME AS METRIC NAME, CAST (COUNT (EMO
22
     .SOURCE_NAME || ' : ' || EMO.RULE_NO) AS varchar2(48)) AS METRIC_COUNT FROM
     C HM ACCOUNTS EMO EMO GROUP BY 'i) Rule ' || EMO.RULE NO || ' : ' || EMO.SOURCE NAME
23
     SELECT 'i) Tot. Rule No. ' || EMO.RULE NO AS METRIC NAME, CAST (COUNT (EMO.RULE NO) AS
24
     varchar2(48)) AS METRIC COUNT FROM C HM ACCOUNTS EMO EMO GROUP BY EMO.RULE NO
25
     UNION
     SELECT 'i) Rule HIT ' || EMO.RULE_NO || ' : ' || EMO.SOURCE_NAME AS METRIC_NAME, CAST(COUNT
26
     (EMO.SOURCE NAME | | ' : ' | EMO.RULE NO) AS varchar2(48)) AS METRIC COUNT FROM
     C HM ACCOUNTS EMO EMO
27
     WHERE EMO.RULE NO IN (5,6,7,8)
28
     GROUP BY 'i) Rule HIT ' || EMO.RULE NO || ' : ' || EMO.SOURCE NAME, EMO.AUTOMERGE IND HAVING
     EMO.AUTOMERGE IND = 1
29
     UNION
30
     SELECT 'i) Rule NM ' || EMO.RULE NO || ' : ' || EMO.SOURCE NAME AS METRIC NAME, CAST(COUNT(
     EMO.SOURCE NAME || ' : ' || EMO.RULE NO) AS varchar2(48)) AS METRIC COUNT FROM
     C HM ACCOUNTS EMO EMO
31
     WHERE EMO.RULE_NO IN (5,6,7,8)
     GROUP BY 'i) Rule NM ' || EMO.RULE NO || ' : ' || EMO.SOURCE NAME, EMO.AUTOMERGE IND HAVING
32
     EMO.AUTOMERGE IND = 2
33
34
     SELECT 'j) Population' AS METRIC_NAME, POP.POPULATION_NAME AS METRIC_COUNT FROM
     C REPOS SSA POPULATION POP WHERE POP.ENABLED IND = 1
35
     UNION
36
     SELECT 'k) Level ' || CGX.BO CLASS CODE AS METRIC NAME, CAST (COUNT (CGX.BO CLASS CODE) AS
     varchar2(48)) AS METRIC COUNT FROM C HM ACCOUNTS CGX, C HM ACCOUNTS EMO EMO
37
     WHERE
38
     CGX.ROWID OBJECT = EMO.ROWID OBJECT MATCHED
39
     GROUP BY
     CGX.BO_CLASS_CODE
40
41
     UNION
```

```
c_repos_job_metric.METRIC_VALUE AS varchar2(8)) AS METRIC_COUNT FROM (c_repos_job_control
     INNER JOIN c repos job metric ON c repos job control.ROWID JOB = c repos job metric.
     ROWID JOB) INNER JOIN c repos job metric type ON c repos job metric.METRIC TYPE CODE =
     c_repos_job_metric_type.METRIC_TYPE_CODE
43
     WHERE C REPOS JOB CONTROL.ROWID JOB = (SELECT JC.ROWID JOB FROM C REPOS JOB CONTROL JC WHERE
```

SELECT '1) Job ' || c_repos_job_metric_type.METRIC_TYPE_DESC AS METRIC_NAME, CAST(

42

44

END RUN DATE = (SELECT MAX (END RUN DATE) FROM C REPOS JOB CONTROL));

```
CREATE OR REPLACE PACKAGE BODY ADD ORS.ADD UE AS
 2
 3
    FUNCTION show version
     RETURN cmxlb.cmx med str
 5
     addue version cmxlb.cmx med str := 'Version 1.4 (2014-03-13 16:02:00)';
7
     BEGIN
8
        RETURN addue version;
9
    END;
10
11
    FUNCTION GET PARAMETER (in name VARCHAR2, in dft VARCHAR2) RETURN VARCHAR2 AS
12
          result VARCHAR2 (255);
13
     BEGIN
14
          SELECT VALUE INTO result FROM C PARAMETERS WHERE NAME = in name;
15
         return result;
16
     EXCEPTION
17
      WHEN OTHERS THEN
18
             RETURN in dft;
19
     END;
20
21
    PROCEDURE chk acct ids
22
      acct_rowid_object varchar2, acct_sys_name varchar2,
23
24
25
       acct sys id
                              varchar2,
26
       acct cd
                              varchar2,
27
       src nf ok
                              boolean,
28
       out_rowid_object OUT varchar2,
29
       out pkey src obj OUT varchar2,
       out_err_flg OUT char,
30
31
       out err msg
                        OUT varchar2
32 )
33 AS
34 sql stmt varchar2(2000);
35 t src sys name varchar2(10);
    t src sys id varchar2(40);
36
37
    t rowid object varchar2(14);
38
    t count
                   integer;
39
   BEGIN
40
     IF acct rowid object is not null THEN
41
       BEGIN
          -- Check if the rowid object is valid
42
43
          sql stmt := 'select src sys name, src sys id from c hm accounts where rowid object =
     ''' || acct rowid object || '''';
44
          --dbms output.put line('sql stmt = ' || sql stmt);
45
          EXECUTE IMMEDIATE sql stmt into t src sys name, t src sys id;
           --dbms output.put line('account found');
46
47
          -- Rowid found
48
          out rowid object := acct rowid object;
49
          -- Version 1.4 - Always use account rowid object to build pkey source object
          out pkey src obj := 'BATCH' || ':' || acct_rowid_object;
50
51
          out err flg := 'N';
52
          out err msg := '';
53
          EXCEPTION
54
           WHEN NO DATA FOUND THEN
55
               --dbms output.put line('account not found');
56
               out rowid object := NULL;
57
               out pkey src obj := NULL;
58
               out err flg := 'Y';
59
               out err msg := 'Invalid account rowid object: ' || acct rowid object;
60
        END;
61
        ELSIF (acct sys name is NOT NULL and acct sys id is NOT NULL) THEN
```

```
62
         BEGIN
 63
            -- Check if there is an account with the provided source keys
 64
            sql stmt := 'select rowid object from c hm accounts where src sys name = :1 and
      src sys id = :2';
 65
            dbms output.put line('Executing:' || sql stmt);
 66
            dbms output.put line('Using src sys name = ' || acct sys name || ' src sys Id: ' ||
      acct sys id);
 67
            EXECUTE IMMEDIATE sql stmt into t rowid object using acct sys name, acct sys id;
 68
            -- Rowid found
 69
            out rowid object := t rowid object;
 70
            out pkey src obj := acct sys name || ':' || acct sys id;
 71
            out err flq := 'N';
 72
            out err msg := '';
 73
            EXCEPTION
 74
              WHEN NO DATA FOUND THEN
 75
                IF src nf ok THEN
 76
                  -- No existing record with this key combo, treat it as a new account
 77
                   dbms output.put line('No data found, src nf ok is true');
 78
                   out rowid object := NULL;
 79
                   out pkey src obj := acct sys name || ':' || acct sys id;
 80
                   out err flg := 'N';
 81
                   out err msg := '';
 82
                ELSE
 83
                   dbms output.put line('No data found, src nf ok is false');
 84
                   out rowid object := NULL;
 85
                   out pkey src obj := NULL;
 86
                   out err flq := 'Y';
 87
                   out err msg := 'Account source key not found: ' || acct sys id || ':' ||
      acct rowid object;
 88
                END IF;
 89
         END;
 90
         ELSIF acct cd IS NOT NULL THEN
 91
 92
            -- Check if there are multiple accounts with this account code
 93
            sql stmt := 'select count(*) from c hm accounts where account cd = :a1';
            EXECUTE IMMEDIATE sql stmt into t count using acct cd;
 94
 95
 96
            -- Bugfix for 3.11. Moved the single row select statment down so it is executed
      *after* checking that the record count=1
 97
            IF t count = 0 THEN
 98
 99
                IF src nf ok THEN
100
                 -- No existing record with this account code, treat it as a new account
101
                 out rowid object := NULL;
102
                 out pkey src obj := 'BATCH' || ':' || acct cd;
                 out err flg := 'N';
103
                 out err msg := '';
104
105
                ELSE
106
                   out rowid object := NULL;
107
                   out pkey src obj := NULL;
108
                   out err flq := 'Y';
109
                   out err msg := 'No account found for account code: ' || acct cd;
110
                END IF;
111
            ELSIF t count = 1 THEN
112
              -- Get the id of the account with the provided account cd
113
              sql stmt := 'select rowid object from c hm accounts where account cd = :a1';
              EXECUTE IMMEDIATE sql stmt into t rowid object using acct cd;
114
              out rowid object := t rowid object;
115
              out pkey src obj := 'BATCH' || ':' || acct_cd;
116
117
              out err flg := 'N';
              out err msg := '';
118
119
            ELSE
```

```
120
              out rowid object := NULL;
121
              out pkey src obj := NULL;
122
              out err flq := 'Y';
123
              out err msg := 'More than one row found for account Code: ' || acct cd;
124
            END IF;
125
            EXCEPTION
              WHEN NO DATA FOUND THEN
126
127
                IF src nf ok THEN
128
                 -- No existing record with this account code, treat it as a new account
129
                 out rowid object := NULL;
130
                 out pkey src obj := 'BATCH' || ':' || acct cd;
                 out err flg := 'N';
131
132
                 out err msg := '';
133
                ELSE
134
                   out rowid object := NULL;
135
                   out pkey src obj := NULL;
136
                   out err flq := 'Y';
137
                   out err msg := 'No account found for account code: ' || acct cd;
138
                END IF;
        END;
139
140
        ELSE
141
           -- No account identifiers provided
142
           out rowid object := NULL;
           out pkey src obj := NULL;
143
144
           out err flg := 'Y';
145
           out err msg := 'At least one account identifier should be provided';
146
         END IF;
147
148
      END chk acct ids;
149
150
      --
151
      PROCEDURE chk ptac ids
152
153
         ptac rowid object
                                varchar2,
154
          ptac sys name
                                 varchar2,
155
         ptac sys id
                                 varchar2,
156
         out rowid object OUT varchar2,
157
         out err flg OUT
                                char,
158
          out err msg
                          OUT
                                varchar2
159
      )
160
      AS
161
      sql stmt varchar2(2000);
162
      t src sys name varchar2(10);
      t src sys id varchar2(40);
163
164
      t rowid object varchar2(14);
165
      t count
                      integer;
      BEGIN
166
167
         IF ptac rowid object is not null THEN
168
         BEGIN
169
            -- Check if the rowid object is valid
170
            sql stmt := 'select rowid object from c bo party acct where rowid object = :rid';
171
            EXECUTE IMMEDIATE sql stmt into t rowid object using ptac rowid object;
172
            -- Rowid found
173
            out rowid object := ptac rowid object;
174
            out err flg := 'N';
175
            out err msg := '';
176
            EXCEPTION
177
              WHEN NO DATA FOUND THEN
178
                 out rowid object := NULL;
179
                 out err flg := 'Y';
                 out err msg := 'Invalid primary customer rowid object: ' || ptac rowid object;
180
181
         END:
```

```
182
         ELSIF (ptac sys name is NOT NULL and ptac sys id is NOT NULL) THEN
183
         BEGIN
184
            -- Check if there is an account with the provided source keys
            sql stmt := 'select rowid object from c bo party acct xref where rowid system = ''' ||
185
       ptac sys name ||
                                 ''' and pkey src object = ''' || ptac sys id || '''';
186
            --dbms output.put line('Executing:' || sql stmt);
187
188
            --dbms output.put line('Using rowid system = ' || ptac sys name || ' Sys Id: ' ||
      ptac sys id);
            --EXECUTE IMMEDIATE sql stmt into t rowid object using ptac sys name, ptac sys id;
189
190
            EXECUTE IMMEDIATE sql stmt into t rowid object;
191
            -- Rowid found
192
            out rowid object := t rowid object;
193
            out err flg := 'N';
            out err msg := '';
194
195
            EXCEPTION
196
              WHEN NO DATA FOUND THEN
197
                 -- No existing PTAC record with this key combo, error
198
                 out rowid object := NULL;
199
                 out err flq := 'Y';
200
                 out err msg := 'No customer record found for provided source keys: ' ||
      ptac_sys_name || ':' || ptac_sys_id;
201
        END;
202
         ELSE
203
           -- No PTAC identifiers provided
204
          out rowid object := NULL;
           out err flq := 'N';
205
206
           out err msg := '';
207
         END IF;
208
      END chk ptac ids;
209
210
211
      PROCEDURE post landing
212
213
          in rowid job
                                  cmxlb.cmx rowid,
214
          in ldg table name
                                 cmxlb.cmx table name,
215
         in stg table name
                                cmxlb.cmx table name,
216
         in prl table name
                                 cmxlb.cmx table name,
217
         out error msg OUT cmxlb.cmx message,
218
          out return code
                            OUT int
219
      )
220
      AS
221
      t acc rowid object varchar2(14);
222
      t acc rowid object2 varchar2(14);
223
      t ptac rowid object varchar2(14);
224
      t pkey src obj varchar2(100);
225
      t pkey src obj2 varchar2(100);
226
      t err flg char(1);
227
      t err msg varchar2(2000);
228
229
      TYPE ref cursor is REF CURSOR;
230
      m cursor ref cursor;
231
232
      cursor c accts is
233
      select acc rowid object, account cd, src sys name, src sys id, ptac rowid object,
      ptac src name, ptac src key
234
      from c ldg hm accounts
235
      for update;
236
237
      cursor c accts rel is
238
      select acc rowid object 1, account cd 1, src sys name 1, src sys id 1,
239
             acc rowid object 2, account cd 2, src sys name 2, src sys id 2
```

```
240
      from
           c ldg accounts rel
241
      for update;
242
243
      cursor c accts ptac rel is
244
      select acc rowid object, account cd, src sys name, src sys id, ptac rowid object,
      ptac src name, ptac src key
      from C LDG HM ACCT PTY AC REL
245
246
      for update;
247
248
249
      BEGIN
250
          cmxlog.debug ('Inside ADD UE.post landing');
          IF in ldg table name = 'C LDG HM ACCOUNTS' AND in stg table name =
251
      'C STG HM ACCTS BATCH' THEN
252
            cmxlog.debug ('ADDUE: Landing table name is ' || in_ldg table name || ' Staging table
253
      name is ' || in stg table name);
254
            FOR r accts in c accts LOOP
255
              --Check the account identifiers
256
              chk acct ids (r accts.acc rowid object, r accts.src sys name, r accts.src sys id,
      r_accts.account_cd, TRUE, t_acc_rowid_object, t_pkey_src_obj, t_err_flg, t_err_msg);
257
              IF t err flg = 'N' THEN
258
                  chk ptac ids (r accts.ptac rowid object, r accts.ptac src name, r accts.
      ptac src key, t ptac rowid object, t err flg, t err msg);
259
              END IF;
260
              UPDATE C LDG HM ACCOUNTS
261
              SET cmp acc rowid object = t acc rowid object,
262
                   cmp pkey src obj = t pkey src obj,
263
                   cmp ptac rowid object = t ptac rowid object,
264
                   error_flag = t_err_flg,
265
                   error msg = t err msg
266
              WHERE CURRENT OF c accts;
267
            END LOOP;
268
            COMMIT;
269
          END;
          ELSIF in ldg table name = 'C LDG ACCOUNTS REL' AND in stg table name =
270
      'C STG HM ACCTS REL BATCH' THEN
271
          BEGIN
272
            cmxlog.debug ('ADDUE: Landing table name is ' || in ldg table name || ' Staging table
      name is ' || in stg table name);
            FOR r accts rel in c accts rel LOOP
273
274
              --Check the account identifiers
275
              chk acct ids (r accts rel.acc rowid object 1, r accts rel.src sys name 1,
      r accts rel.src sys id 1, r accts rel.account cd 1, FALSE, t acc rowid object,
      t pkey src obj, t err flg, t err msg);
276
              IF t err flg = 'N' THEN
277
                  chk acct ids (r accts rel.acc rowid object 2, r accts rel.src sys name 2,
      r accts rel.src sys id 2, r accts rel.account cd 2, FALSE, t acc rowid object2,
      t_pkey_src_obj2, t_err_flg, t_err_msg);
278
              END IF;
279
              UPDATE C LDG ACCOUNTS REL
280
              SET cmp acc rowid object 1 = t acc rowid object,
281
                   cmp_pkey_src_obj = t_pkey_src_obj || ':' || t_pkey_src_obj2,
282
                   cmp acc rowid object 2 = t acc rowid object2,
283
                   error flag = t err flg,
284
                   error_msg = t_err_msg
              WHERE CURRENT OF c accts rel;
285
286
            END LOOP;
287
            COMMIT;
288
          END;
289
          ELSIF in ldg table name = 'C LDG HM ACCT PTY AC REL' AND in stg table name =
      'C STG HM ACCT PTAC BATCH' THEN
```

```
C:\L<sup>290</sup>
            BEGIN
 291
              cmxlog.debug ('ADDUE: Landing table name is ' || in ldg table name || ' Staging table
        name is ' || in stg table name);
              FOR r accts ptac rel in c accts ptac rel LOOP
 292
 293
                --Check the account identifiers
 294
                chk acct ids (r accts ptac rel.acc rowid object, r accts ptac rel.src sys name,
        r accts ptac rel.src sys id, r accts ptac rel.account cd, FALSE, t acc rowid object,
        t pkey src obj, t err flg, t err msg);
 295
 296
                IF t err flg = 'N' THEN
 297
                     chk ptac ids (r accts ptac rel.ptac rowid object, r accts ptac rel.ptac src name
        , r accts ptac rel.ptac src key, t ptac rowid object, t err flg, t err msg);
 298
                END IF;
 299
 300
 301
                IF r accts ptac rel.ptac src name is NOT NULL and r accts ptac rel.ptac src key IS
        NOT NULL THEN
 302
                     t pkey src obj2 := t pkey src obj || ':' || r accts ptac rel.ptac src name ||
        ':' || r accts ptac rel.ptac src key;
 303
 304
                     t_pkey_src_obj2 := t_pkey_src_obj || ':' || t_ptac_rowid_object;
 305
                END IF;
 306
 307
                UPDATE C LDG HM ACCT_PTY_AC_REL
 308
 309
                SET cmp_acc_rowid_object = t_acc_rowid_object,
 310
                      cmp pkey src obj = t pkey src obj2,
 311
                      cmp ptac rowid object = t ptac rowid object,
 312
                     error flag = t err flg,
 313
                      error msg = t err msg
 314
                WHERE CURRENT OF c accts ptac rel;
 315
              END LOOP;
 316
              COMMIT;
 317
            END;
 318
            ELSE
 319
              -- Do nothing
 320
              CMXlog.debug ('ADDUE Post Landing - no action taken');
 321
            END IF;
 322
        END;
 323
        PROCEDURE post stage concat
 324
 325
            in party acct id varchar2,
 326
            out txn div display OUT varchar2
 327
 328
        AS
 329
        --
 330
        BEGIN
 331
            with
 332
            stgbo as
 333
 334
            select party acct id, TXN DIV CD from C BO PTAC TXN DIV WHERE party acct id =
        in party acct id
 335
            union
 336
            select party acct id, TXN DIV CD from C STG PTAC TXN DIV WHERE PARTY ACCT ID =
        in party acct id
 337
            )
            select\ distinct\ TRIM(A||'\ '||B||'\ '||C||'\ '||D)\ into\ out\_txn\_div\_display\ from\ (select\ Continuous)
 338
        party acct id, TXN DIV CD from stqbo ) pivot( max(TXN DIV CD) for TXN DIV CD in ( 'ADC' A,
        'ADD' B, 'AMD' C, 'APOC' D)) WHERE PARTY ACCT ID = in party acct id;
 339
        END post stage concat;
 340
        PROCEDURE post stage
 341
```

```
342
          in rowid job
                                   cmxlb.cmx rowid,
343
          in ldg table name
                                  cmxlb.cmx table name,
344
                                 cmxlb.cmx table name,
          in stg table name
345
                             OUT cmxlb.cmx message,
          out error msg
346
          out return code
                            OUT int
347
      )
348
      AS
349
      sql stmt varchar2(2000);
350
      t party acct id varchar2(14);
351
      t txn div cd varchar2(20);
352
      t txn div display varchar2(50);
353
      commit count NUMBER := 0;
354
      commit inc NUMBER := 1000;
355
356
      CURSOR C PTAC TXN IS
      SELECT PARTY ACCT ID, TXN DIV CD, TXN DIV DISPLAY
357
            C STG PTAC TXN_DIV;
358
      FROM
359
360
      BEGIN
361
362
          commit inc := to number(GET PARAMETER('post stage commit', commit inc));
          IF in ldg table name = 'C LDG PTAC TXN DIV' AND in stg table name = 'C STG PTAC TXN DIV'
363
       THEN
                20130225 SCK Update the stage txn div display col with a denormalized string
364
      derived from an aggregate of both staging and base object
365
              cmxlog.debug ('ADDUE: Landing table name is ' || in ldg table name || ' Staging
      table name is ' || in stg table name);
366
              BEGIN
367
                    FOR R PTAC TXN in C PTAC TXN LOOP
                          post stage concat(R PTAC TXN.PARTY ACCT ID, t txn div display);
368
369
                          UPDATE C STG PTAC TXN DIV
370
                          SET txn div display = t txn div display, create date = sysdate WHERE
      TXN DIV CD = R PTAC TXN.TXN DIV CD AND
371
                          PARTY ACCT ID = R PTAC TXN.PARTY ACCT ID; -- CURRENT OF C PTAC TXN;
372
                          commit count := commit count + commit inc;
373
                          IF MOD (commit count, 1000) = 0 THEN
374
                               cmxlog.debug ('ADDUE: post stage concat is: ' || commit count || ':'
       || R PTAC TXN.PARTY ACCT ID || ' : ' || t txn div display);
375
                               COMMIT;
376
                          END IF;
377
                    END LOOP;
378
                    COMMIT;
379
              END;
380
          ELSE
381
            CMXlog.debug ('ADDUE Post Stage - no action taken');
382
          END IF;
383
      END post stage;
384
      END ADD UE;
385
386
```

```
CREATE OR REPLACE PACKAGE ADD ORS.ADD BATCHJOBS AS
    -2
      NAME: ADD_BATCHJOBS
3
4
      PURPOSE:
5
      REVISIONS:
      Ver Date Author Description
7
      ______
           4/24/2011 SCK Added procedure to execute batch group
8
       2.0
    ******************************
9
10
       SUBTYPE cmx rowid IS CHAR( 14 );
11
      SUBTYPE cmx med str IS VARCHAR2 ( 2000 );
      SUBTYPE cmx big str IS VARCHAR2 ( 8000 );
      SUBTYPE cmx table_name IS VARCHAR2( 30 );
13
14
      SUBTYPE cmx column name IS VARCHAR2 ( 30 );
      SUBTYPE cmx data value IS VARCHAR2 ( 1000 );
16
      SUBTYPE cmx object name IS VARCHAR2 ( 128 );
17
      SUBTYPE cmx object desc IS VARCHAR2 ( 255 );
18
      SUBTYPE cmx system name IS VARCHAR2 ( 50 );
      SUBTYPE cmx_status_msg IS VARCHAR2( 1024 );
SUBTYPE cmx_date_string IS VARCHAR2( 100 );
19
20
21
      SUBTYPE cmx user name IS VARCHAR2 ( 50 );
22
      SUBTYPE cmx single char IS VARCHAR2(1);
23
      SUBTYPE cmx job id IS CHAR (14);
      SUBTYPE cmx error code IS INT;
24
     SUBTYPE cmx error message IS VARCHAR2 ( 4000 );
25
26
27
       -- constants for job status, c repos job status type
      SUCCESS
28
                                  INT := 0;
29
      WARNING
                                  INT := 1;
      PROCESSING FAILED
30
                                  INT := 2;
31
                                 INT := 99;
32
      INCOMPLETE
                                 INT := 4;
      CLEANSE JOB_FAILED
33
                                 EXCEPTION;
34
      LOAD JOB FAILED
                                 EXCEPTION;
35
      MATCHMERGE JOB FAILED
                                EXCEPTION;
      DDL_ERROR
SQL_DDL_ERROR
36
                                 EXCEPTION;
37
                                 EXCEPTION;
38
      JOB NOT VALID
                                 EXCEPTION;
      NO INDEX_START_TABLE_NAME
39
                                 EXCEPTION;
                     EXCEPTION;
40
      BAD PARAMETER
      GLOBAL INITIALIZATION FAILED EXCEPTION;
41
      READ CONFIG FILE FAILED EXCEPTION;
42
43
      GENERIC ERROR
                                 EXCEPTION;
44
45
      out error code
                                 cmx error code;
46
      out error message
                                  cmx error message;
47
    -- Global variables
48
49
                                 BOOLEAN := true; -- print messages to console/log file?
      job print out
       job_print debug
                                  BOOLEAN := true; -- print messages to the siperian
50
    debug log
51
52
    -- Procedure to print to console or siperian debug log
53
      PROCEDURE x print (in msg VARCHAR2);
54
55
    --- Generic procedure to initialize all global variables --
56
      PROCEDURE global initialize(
57
58
           in host name
                                               VARCHAR2,
59
           in ths name
                                               VARCHAR2,
60
                                               VARCHAR2,
           in db user
61
           out error code
                                     OUT
                                               cmx error code,
```

```
62
              out error message
                                             OUT
                                                        cmx error message );
 63
 64
          -- Control Procedure to execute Stage, Load, Match and Merge jobs --
 65
          PROCEDURE exec mrm process (
              in_base_table_name IN VARCHAR2,
 66
 67
              in stg table name IN VARCHAR2,
              in job type IN VARCHAR2,
 68
 69
              in host name
                                 IN VARCHAR2,
 70
              in tns name
                                 IN VARCHAR2,
 71
                                  IN VARCHAR2,
              in db user
 72
              out error code OUT cmx error code,
              out error message OUT cmx error message );
 73
 74
 75
      --- Generic procedure to run Stage jobs ---
 76
          PROCEDURE run cleanse (
 77
              in table name
                                                       VARCHAR2,
 78
              out error code
                                             OUT
                                                        cmx error_code,
 79
              out error message
                                             OUT
                                                        cmx error message );
 80
      --- Generic procedure to run Load jobs ---
 81
 82
         PROCEDURE run load (
 83
              in table name
                                                        VARCHAR2,
 84
              in force update ind
                                                        INT,
 85
              out error code
                                             OUT
                                                        cmx error code,
 86
              out error message
                                             OUT
                                                        cmx error message );
 87
      --- Generic procedure to run Match and Merge jobs ---
 88
 89
          PROCEDURE run matchmerge (
 90
              in table name
                                                        VARCHAR2,
              in match set
 91
                                                        VARCHAR2,
 92
                                             OUT
              out error code
                                                        cmx error code,
 93
              out error message
                                             OUT
                                                        cmx error message );
 94
 95
          PROCEDURE process load(
 96
              in table name
                                                        VARCHAR2,
 97
              out error code
                                             OUT
                                                        cmx error code,
 98
              out error message
                                             OUT
                                                        cmx error message );
 99
100
          PROCEDURE process stage (
101
                                                        VARCHAR2,
              in table name
                                                        cmx error code,
102
              out error code
                                             OUT
103
              out error message
                                             OUT
                                                        cmx error message );
104
          PROCEDURE process matchmerge (
105
106
              in table name
                                                        VARCHAR2,
107
              out error code
                                              OUT
                                                        cmx error code,
                                             OUT
                                                        cmx error message );
108
              out error message
109
          PROCEDURE execute batchgroup (
110
                                                        VARCHAR2,
111
              in mrm server
112
                                                        VARCHAR2,
              in batch group
113
              in autosys id
                                                        VARCHAR2,
114
              in_autosys_password
                                                        VARCHAR2,
115
              out error code
                                             OUT
                                                       cmx error code,
116
              out error message
                                             OUT
                                                       cmx error message );
117
118
      END;
119
      /
120
```

```
CREATE OR REPLACE PACKAGE BODY ADD ORS.ADD TASK ASSIGN AS
 -2
     addtask pkb version cmxlb.cmx med str := 'Version 2.0 (2013-03-13 16:32:08)';
 3
     addtask dsi name cmxlb.cmx med str := 'ADDApp';
                                                                                    -- Name of
     our app
     addtask_sa_name cmxlb.cmx_med_str := 'TransactionalCustomer';
                                                                                    -- Name of
     the SA that will be attached to the task
     addtask tbl name cmxlb.cmx med str := 'C BO PARTY ACCT';
 5
                                                                                   -- Name of
     the base object table that will be attached to the task data
     addtask tsk type cmxlb.cmx med str := 'AssignHier';
     Task type to use when creating task
 7
     addtask x email cmxlb.cmx med str := 'ADD Data Stewards Support@abbott.com';
                                                                                         -- USE
     the C PARAMETER Table Email address to send the exception report to
     addtask_x_sender cmxlb.cmx_med str := 'NewCustomerAssignment@abbott.com';
 8
                               -- Email address of the sender
9
     1 mesg varchar2(200);
10
     --Version History:
11
12
     --Version 1.0 (2012-26-06 15:52:00) initial version;
13
     --Version 2.0 (2013-03-13 16:32:08) SCK Generate tasks and assign to users based on Area
     and ISO Country Code
14
     FUNCTION show version
15
         RETURN cmxlb.cmx med str
16
17
     BEGIN
18
         RETURN addtask pkb version;
19
     END;
20
21
22
     PROCEDURE get zip
23
24
        in party acct id varchar2,
25
        out zip postal cd OUT varchar2
26
27
     AS
28
29
     BEGIN
30
31
     SELECT distinct NVL (AD.ZIP POSTAL CD, NULL) into out zip postal cd FROM C BO PTAC ADDR x,
     C BO ADDRESS ad
32
     where
33
     AD.ROWID OBJECT = X.ADDR ID and
     X.PARTY ACCT ID = in party acct id;
34
35
     IF out zip postal cd IS NOT NULL THEN
36
        out_zip_postal_cd := ':' || out_zip_postal_cd;
37
     END IF;
38
39
     END get zip;
40
     PROCEDURE existing add tam
41
42
         in party acct id varchar2,
43
        existing relationships OUT NUMBER
44
     )
45
     AS
46
     BEGIN
47
     SELECT COUNT (PA.ROWID OBJECT) INTO existing relationships FROM C BO PARTY ACCT PA,
     C HM ACCOUNTS HM , C HM ACCTS PTY ACCT REL HPR
     WHERE PA.ROWID OBJECT = HPR.ROWID BO PARTY ACCOUNT AND
48
     HPR.ROWID HM ACCOUNTS = HM.ROWID OBJECT AND
49
50
     HPR.REL TYPE CODE = 'CG1 is parent of Customer' AND
51
     HM.ADD TAM = 'Y' AND
52
     PA.ROWID OBJECT = in party acct id;
53
```

```
54
      END existing add tam;
-55
      FUNCTION GET PARAMETER (in name VARCHAR2, in dft VARCHAR2) RETURN VARCHAR2 AS
 56
           result VARCHAR2 (255);
 57
     BEGIN
 58
           SELECT VALUE INTO result FROM C PARAMETERS WHERE NAME = in name;
 59
 60
      EXCEPTION
 61
         WHEN OTHERS THEN
              RETURN in dft;
 62
 63
      END;
 64
 65
      FUNCTION send mail (in sender varchar2, in recepients varchar2, in subject varchar2,
      in message varchar2)
 66
          RETURN BOOLEAN
 67
                           VARCHAR2 (100) := '';
 68
          db name
 69
      BEGIN
 70
          select user || ' on ' || sys context('USERENV', 'DB NAME') into db name from dual;
 71
72
          UTL MAIL.SEND (
 73
            sender => in sender,
 74
            recipients => in recepients,
 75
            subject => in subject || ' ' || db name,
            message => in message);
 76
 77
             return TRUE;
 78
      EXCEPTION
 79
         WHEN OTHERS THEN
 80
                 dbms output.put line('Error sending email: ' || sqlcode || '-' || sqlerrm);
 81
                 cmxut.debug print (1 mesg);
 82
                 return FALSE;
 83
      END;
 84
 85
 86
     PROCEDURE exception report (in email varchar2)
 87
 88
     cursor c ptac is
 89
      select iso alpha3 cd, count(*) cnt
 90
        from c bo ptac txn div dv, c bo party acct pa
 91
        where
 92
        PA.ROWID OBJECT = DV.PARTY ACCT ID and
              dv.cust match status = 'E' and pa.bo class code='Transactional Customer'
 93
 94
        group by iso alpha3 cd
 95
       order by 1;
 96
 97
      1 count integer := 0;
 98
      1 body varchar2(6000);
      1 subject varchar2(100) := 'Exception Report - unassigned countries for ' || to char(sysdate
 99
      , 'MM/DD/YYYY');
      1 recepients varchar2(255);
100
      BEGIN
101
102
                              := 'Country Unassigned New' | chr(10);
         l body
         103
104
105
106
         FOR r ptac in c ptac LOOP
107
             l body := l body ||rpad(' ', 3) || r ptac.iso alpha3 cd || rpad(' ', 15) || r ptac.
      cnt || chr(10);
108
             l count := l_count + r_ptac.cnt;
109
         END LOOP;
110
         IF 1 count = 0 THEN
111
              -- No exceptions
112
             dbms output.put line('No exceptions were found');
```

```
113
          ELSE
-114
               l body := chr(10) || l body || chr(10) || 'Total unassigned new customers: ' ||
       l count;
              dbms output.put line('Subject: ' || 1 subject);
115
116
               dbms_output.put_line(l_body);
               1 recepients := GET PARAMETER('TASK Exception Email', addtask x email);
117
               IF send mail (addtask x sender, 1 recepients, 1 subject, 1 body) THEN
118
119
                  dbms output.put line('Email sent');
120
               ELSE
121
                  dbms output.put line('Error sending email');
122
               END IF;
123
          END IF;
124
      END;
125
126
      FUNCTION get user for country (in cntry cd varchar2)
127
          RETURN cmxlb.cmx rowid
128
      AS
129
      l rowid cntry cmxlb.cmx rowid;
130
      1 rowid user cmxlb.cmx rowid;
131
      l user name varchar2(50);
132
      1 global loc cd C LU ISO CNTRY.GLOBAL LOC CD%TYPE;
133
      l user found BOOLEAN;
134
      l area found BOOLEAN;
135
      BEGIN
136
          -- Get the rowid and area for the country
137
          l mesg := 'Getting rowid and area for country: ' || in cntry cd;
138
          dbms output.put line(1 mesg);
139
          BEGIN
140
                SELECT ROWID OBJECT, GLOBAL LOC CD
141
                INTO
                        l rowid cntry, l global loc cd
142
                FROM
                        C LU ISO CNTRY
143
                WHERE
144
                       iso alpha3 cd=in cntry cd;
          EXCEPTION
145
146
               WHEN NO DATA FOUND THEN
147
                     -- Invalid country!
148
                     l mesg := 'Country code not found! ' || in cntry cd;
149
                     return NULL;
150
          END;
          -- Get the user associated with the country that has the earliest create date
1.51
152
          l mesg := 'Looking for assignment for country: ' || in cntry cd || ' rowid country: ' ||
       1 rowid cntry;
153
          dbms output.put line(1 mesg);
          l user found := FALSE;
154
155
          BEGIN
156
               SELECT USER NAME
157
                       l user name
               INTO
158
               FROM
                       (
159
                               SELECT A.USER NAME FROM
160
                               C BO DSR USER A, C BO DSR USER ISO CNTRY B
                               WHERE
161
162
                                      B.ROWID ISO CNTRY=1 rowid cntry AND
163
                                      B.ROWID_DSR_USER=A.ROWID_OBJECT AND
                                      NVL (B.DELETED IND, 0) = 0 AND
164
165
                                      NVL(B.HUB STATE IND, 1) = 1 AND
166
                                      NVL(A.HUB STATE IND, 1) = 1 AND
167
                                      A.USER ENABLED IND=1
168
                                ORDER BY B.CREATE DATE)
169
                WHERE ROWNUM < 2;
170
                l user found := TRUE;
171
                l mesg := 'Country level assignment found, rowid user: ' || l rowid user;
172
                dbms output.put line(l mesg);
```

```
173
          EXCEPTION
174
                WHEN NO DATA FOUND THEN
175
                      l user found := FALSE;
176
          END;
177
178
          IF NOT 1 user found THEN
179
               -- No active user was found for the country - get the user that has the area
      responsibility
180
                  1 mesg := 'Did not find assignment for country: ' || in cntry cd || ' checking
      area level ' || 1 global loc cd;
181
                  dbms output.put line(1 mesg);
182
                  l area found := FALSE;
183
184
              BEGIN
               SELECT USER NAME
185
                       l_user name
186
               INTO
187
               FROM
188
                               SELECT A.USER NAME FROM
189
                               C BO DSR USER A, C BO DSR USER ISO CNTRY B
190
                               WHERE
191
                                       B.ROWID ISO CNTRY IS NULL AND
192
                                       B.GLOBAL LOC CD=1 global loc cd AND
193
                                       B.ROWID DSR USER=A.ROWID OBJECT AND
194
                                       NVL (B.DELETED IND, 0) = 0 AND
195
                                       NVL(B.HUB STATE IND, 1) = 1 AND
196
                                       NVL(A.HUB STATE IND, 1) = 1 AND
197
                                       A.USER ENABLED IND=1
198
                                ORDER BY B.CREATE DATE)
199
                WHERE ROWNUM < 2;
200
                   l area found := TRUE;
201
                   l mesg := 'Area level assignment found, rowid user: ' || l rowid user;
202
                  dbms output.put line(1 mesg);
203
                EXCEPTION
204
                   WHEN NO DATA FOUND THEN
205
                        l area found := FALSE;
206
                END;
207
208
209
          END IF;
210
          IF NOT (1 area found or 1 user found) THEN
211
            BEGIN
                  l mesg := 'Did not find either country or area level assignment for country: ' | |
212
       in cntry_cd;
213
                  dbms output.put line(1 mesg);
214
                  cmxut.debug print (l mesg);
215
                  return NULL;
216
            END;
217
          END IF;
218
          BEGIN
219
220
                l mesg := 'Looking up user: ' || l user name;
221
                dbms output.put line(l mesg);
222
               cmxut.debug_print (l_mesg);
223
               SELECT ROWID USER
224
                       l rowid user
               INTO
225
               FROM
                      C REPOS USER
226
               WHERE
227
                      user name = 1 user name;
228
                EXCEPTION
229
                   WHEN NO DATA FOUND THEN
230
                       l mesg := 'User not found in C REPOS USER! : ' || l user name;
231
                      dbms output.put line(l mesg);
```

```
232
                     cmxut.debug print (1 mesg);
233
                     return NULL;
234
          END;
235
         RETURN 1 rowid user;
236
      END;
237
      --
238
      PROCEDURE add assign tasks (
239
          in max tasks IN INT,
240
          out unassigned task count OUT INT,
241
          out assigned task count
                                       OUT INT,
242
         out error msg
                                             OUT cmxlb.cmx_message,
243
                                             OUT
         out return code
                                                   INT)
244
      AS
245
         20130313
                        SCK Generate tasks and assign to users based on Area and ISO Country
      Code
246
      lock applied BOOLEAN;
247
      l rowid sa cmxlb.cmx rowid;
248
      l rowid tbl cmxlb.cmx rowid;
249
      1 rowid user cmxlb.cmx rowid;
250
      l task title cmxlb.cmx big str;
251
      l rowid task cmxlb.cmx rowid;
252
      1 match status char(1);
253
      zip postal cd varchar2(36);
254
      dueDateDay NUMBER;
255
      existing relationships NUMBER;
256
257
              CURSOR c txn
258
              IS
259
                  SELECT TX.TXN DIV CD,
                      TX.CUST MATCH STATUS,
260
261
                      TX.ROWID OBJECT,
                      TX.PARTY ACCT ID,
262
263
                      TX.HUB STATE IND,
264
                      PA.CUST NBR PK,
265
                      PA.CUST NM,
266
                      PA.ISO ALPHA3 CD
267
                  FROM C BO PTAC TXN DIV TX, C BO PARTY ACCT PA
                  WHERE TX.PARTY ACCT ID = PA.ROWID OBJECT AND
268
269
                      TX.CUST MATCH STATUS IN ('N', 'E') AND
                      TX.TXN DIV CD = 'ADD' AND
270
                      NVL(TX.HUB STATE IND, 1) = 1
271
272
                  FOR UPDATE ;
273
274
              BEGIN
275
                      dueDateDay := TO NUMBER (GET PARAMETER ('DUE DATE DAYS', '7'));
276
                       l mesg := 'due days: ' || dueDateDay;
277
                      BEGIN
278
                          SELECT rowid subject area
279
                          INTO 1 rowid sa
280
                           FROM c repos subject area
281
                          WHERE dsi name = addtask dsi name AND name = addtask sa name;
282
283
                       l_mesg := l_mesg || ' sa: ' || TRIM(l_rowid_sa);
284
                      BEGIN
285
                      SELECT rowid table
286
                           INTO l_rowid_tbl
287
                          FROM c repos table
288
                          WHERE table name = addtask tbl name;
289
290
                       l mesg := l mesg || ' table: ' || TRIM(l rowid tbl);
291
                      dbms output.put line(1 mesg);
292
                      cmxut.debug print (1 mesg);
```

```
293
                       FOR r txn in c txn LOOP
294
                           existing add tam(r txn.PARTY ACCT ID, existing relationships);
                            l mesg := 'tam relates: ' || existing relationships;
295
296
                           IF existing relationships = 0 THEN
297
                                l rowid user := get user for country(r txn.iso alpha3 cd);
298
                                 l mesg := l mesg || ' user iso: ' || TRIM(l rowid user) || ' ' ||
      r txn.iso alpha3 cd;
299
                                IF 1 rowid user IS NULL THEN
300
                                   l match status := 'E';
301
                                ELSE
302
                                   get zip (r txn.PARTY ACCT ID, zip postal cd);
303
                                   BEGIN
304
                                        l task title := r txn.cust nbr pk || ':' || r txn.cust nm
      || ':' || r txn.iso alpha3 cd || zip_postal_cd;
305
                                        l mesg := 'Creating task with title: ' || l task title ||
      ' for rowid user: ' || l rowid user;
306
                                       dbms output.put line(1 mesg);
307
                                       cmxut.debug print (l mesg);
308
                                        l rowid task := c repos task seq.nextval;
309
310
                                        l mesg := 'Inserting into c_repos_task_assignment';
311
                                       dbms_output.put_line(l_mesg);
312
                                        cmxut.debug print (1 mesg);
313
                                        INSERT INTO c repos task assignment (rowid task, rowid user
      , rowid subject area, task type, task comment, due date, creator, updated by, status, title,
       rowid workflow process)
314
                                        VALUES (1 rowid task, 1 rowid user, 1 rowid sa,
      addtask tsk type, 'A new customer has been introduced into MDM and may require Hierarchy
      maintenance (Row ID: ' || r txn.PARTY ACCT ID || ')', trunc(sysdate+dueDateDay), user, user,
       'OPEN', 1 task title, 1 rowid task);
315
                                   END;
316
                                  -- Create task data
317
                                  BEGIN
318
                                        l mesg := 'Inserting into c repos task data';
319
                                       dbms output.put line(l mesg);
320
                                        cmxut.debug print (1 mesg);
321
                                       INSERT INTO C REPOS TASK DATA (ROWID OBJECT, ROWID TABLE,
      ROWID TASK, ROWID TASK DATA)
322
                                       VALUES (r txn.PARTY ACCT ID, l rowid tbl, l rowid task,
      c repos task data seq.nextval);
323
                                  END;
324
                                   l match status := 'A';
325
                                END IF;
326
327
                           ELSE
328
                               l match status := 'A';
329
                           l mesg := l mesg || ' c_m_status: ' || l_match_status;
330
331
                           dbms output.put line(1 mesg);
332
                           cmxut.debug print (1 mesg);
333
334
                           UPDATE C BO PTAC TXN DIV
335
                           SET CUST MATCH STATUS = 1 match status
336
                           WHERE ROWID OBJECT = r txn.rowid object;
337
338
                           UPDATE C BO PTAC TXN DIV XREF
339
                           SET CUST MATCH STATUS = 1 match status
340
                           WHERE ROWID OBJECT = r txn.rowid object;
341
                       END LOOP;
342
                       COMMIT;
343
            exception report (addtask x email);
344
      EXCEPTION
```

```
345
              WHEN OTHERS THEN
346
                     dbms_output.put_line(l_mesg);
347
                     cmxut.debug print (1 mesg);
348
                     dbms_output.put_line(sqlcode || '-' || sqlerrm);
349
                      cmxut.debug_print (sqlcode || '-' || sqlerrm);
350
                      out_error_msg := 'ERROR ' || 1_mesg || '::' || sqlcode || '-' || sqlerrm;
351
                      out return code:=-10222;
352
              END;
353
      END ADD_TASK_ASSIGN;
354
355
```