oracle 10g 研究ORACLE_HOME rdbms admin 下的脚本的功能 (27) c0900010.sql

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```
#upgrade Oracle RDBMS from 9.0.1 to the new release
#Put any dictionary related changes here (ie-create, alter,
         update,...). DO NOT put PL/SQL modules in this script.
Rem
         If you must upgrade using PL/SQL, put the module in a0900010.\operatorname{sql}
Rem
         as catalog. sql and catproc. sql will be run before a0900010. sql
Rem
Rem
         This script is called from u0900010. sql and c0801070. sql
Rem
Rem
         This script performs the upgrade in the following stages:
Rem
           STAGE 1: upgrade from 9.0.1 to new release
Rem
           STAGE 2: call catalog.sql and catproc.sql
#
Rem $Header: c0900010.sql 02-sep-2004.08:17:07 rburns Exp $
Rem c0900010.sal
Rem
Rem Copyright (c) 1999, 2004, Oracle. All rights reserved.
Rem
Rem
       NAME
         c0900010.sql - upgrade Oracle RDBMS from 9.0.1 to the new release
Rem
Rem
Rem
       DESCRIPTION
         Put any dictionary related changes here (ie-create, alter,
Rem
         update,...). DO NOT put PL/SQL modules in this script.
Rem
         If you must upgrade using PL/SQL, put the module in a0900010.sql
Rem
         as catalog. sql and catproc. sql will be run before a0900010. sql
Rem
         is invoked.
Rem
         This script is called from u0900010.sql and c0801070.sql
Rem
Rem
Rem
         This script performs the upgrade in the following stages:
           STAGE 1: upgrade from 9.0.1 to new release
           STAGE 2: call catalog.sql and catproc.sql
Rem
Rem
Rem
         * This script must be run using SQL*PLUS.
Rem
         * You must be connected AS SYSDBA to run this script.
Rem
       MODIFIED
                  (MM/DD/YY)
Rem
       rburns
                   09/02/04 - remove serveroutput
Rem
Rem
       rburns
                   07/15/04 - remove dbms_output compiles
                   03/25/04 - 3473968 - correct mispell privilege
       arithikr
                   01/05/04 - Fix ts# for indices on temp tables. #3238525
Rem
       nireland
Rem
       ssubrama
                   06/10/02 - bug 2385207 move delete from dependency$
       ssubrama
                   06/02/02 - bug 2385207 delete dependency for no-existant
Rem
Rem
                              x$ tables from dependency$
                   02/13/02 - call 9.2.0 script
Rem
       rburns
                   02/08/02 - transformation upgrade changes
Rem
       nbhatt
                   01/23/02 - remove unnecessary indexes on partitioning
Rem
       araghava
```

metadata.

Rem

```
01/15/02 - bug 2093119 (remove x$kl1cnt & x$kl1tab)
Rem
      cm1im
      nbhatt
                  01/23/02 - add columns to the transformation$ table
Rem
      rburns
                  01/09/02 - reset serveroutput
Rem
                  12/18/01 - add drops of HS and logstdby objects
Rem
      rburns
      wojei1
                  12/05/01 - upgrade script for map_object.
Rem
                  11/19/01 - add additional columns to Streams tables
Rem
      wesmith
Rem
      avoaz
                 11/15/01 - change upg func names for 9.2.0
Rem
      rburns
                  11/16/01 - fix map extelement table
      avaliani
                 11/16/01 - rm change NULL to UB4MAXVAL
Rem
Rem
      weiwang
                  11/13/01 - change index i_objtype to unique index
                 11/09/01 - #1817695: unlimit default resmgr parameter values
      rherwadk
Rem
Rem
      rhurns
                  11/05/01 - cleanup
Rem
      weiwang
                  11/05/01 - rules engine upgrade
Rem
      wesmith
                  11/02/01 - Streams upgrade
                 11/02/01 - add streams$_propagation_process
Rem
      kmeiyyap
                  11/01/01 - add aq$_replay_info
Rem
      najain
Rem
      kmeivvap
                 11/02/01 - add streams$_propagation_process
Rem
      najain
                  11/01/01 - add aq$_replay_info
      1vbcheng
                 11/05/01 - action line no offset
Rem
                 10/25/01 - merging LOG into MAIN
      celsbern
Rem
                  10/26/01 - wrap drop index
      rhurns
Rem
Rem
      vshukla
               11/01/01 - set KQLDTVNTF HAS MPR bit in tab$ if
                             KQLDTVCM MPR bit is set.
Rem
      rburns
                 10/24/01 - fix i_rls statement
      clei
                 10/02/01 - add synonym id to rls_grp$ and rls_ctx$
Rem
                  10/13/01 - clob lsqltext for fga log$
      dmwong
Rem
Rem
      jcarey
                  09/24/01 - more aw$ and ps$
      wojei1
                  10/30/01 - modified map_extelement table.
Rem
Rem
      clei
                  09/15/01 - re-create i_rls as non unique index
                  09/10/01 - AW$ and PS$.
      esovleme
Rem
                  08/31/01 - add flashback privilege.
      akalra
Rem
Rem
      sbasu
                  08/24/01 - Add hiboundlen, hiboundval, bhiboundval to
                              [tab|ind]subpart$
Rem
Rem
      rburns
                  08/23/01 - move attribute synonym columns to i script
                  08/22/01 - upgrade type system to 9.2.0
Rem
      avoaz
                  08/17/01 - Add synobj# column to coltype$.
Rem
      avoaz
                  08/16/01 - Add synobj# column to attr$, coll$, res$, param$
Rem
      ayoaz
Rem
      eyho
                  07/02/01 - drop old ext_to_obj view and table
Rem
      dcwang
                  07/16/01 - add new privilege: grant any object privilege.
                  07/02/01 - update audit options
      mxiao
Rem
Rem
      dmwong
                  06/19/01 - add the missing delete entry on fga log$.
                  06/11/01 - add indexes on lob$(lob#), lobcomppart$(partobj#)
Rem
      1barton
Rem
      rburns
                  06/07/01 - Merged rburns_setup_901_upgrade
                  06/04/01 - Created
Rem
      rburns
Rem BEGIN STAGE 1: upgrade from 9.0.1 to 9.2.0
Rem Add new system privileges here
insert into SYSTEM_PRIVILEGE_MAP values (-243, 'FLASHBACK ANY TABLE', 0);
insert into SYSTEM PRIVILEGE MAP values (-244, 'GRANT ANY OBJECT PRIVILEGE', 0);
insert into SYSTEM_PRIVILEGE_MAP values (-64, 'CREATE RULE', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-65, 'CREATE ANY RULE', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-66, 'ALTER ANY RULE', 1);
```

```
insert into SYSTEM_PRIVILEGE_MAP values (-68, 'EXECUTE ANY RULE', 1);
insert into SYSTEM PRIVILEGE MAP values (-245, 'CREATE EVALUATION CONTEXT', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-246, 'CREATE ANY EVALUATION CONTEXT',
                                     1);
insert into SYSTEM_PRIVILEGE\_MAP values (-247, 'ALTER ANY EVALUATION CONTEXT',
                                    1):
insert into SYSTEM PRIVILEGE MAP values (-248, 'DROP ANY EVALUATION CONTEXT',
                                     1):
insert into SYSTEM_PRIVILEGE_MAP values (-249,
                                     'EXECUTE ANY EVALUATION CONTEXT', 1);
insert into SYSTEM PRIVILEGE MAP values (-250, 'CREATE RULE SET', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-251, 'CREATE ANY RULE SET', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-252, 'ALTER ANY RULE SET', 1);
insert into {\tt SYSTEM\_PRIVILEGE\_MAP} values (-253, 'DROP ANY RULE SET', 1);
insert into SYSTEM_PRIVILEGE_MAP values (-254, 'EXECUTE ANY RULE SET', 1);
grant all privileges to dba with admin option;
Rem=====
Rem Add new object privileges here
Rem=====
grant delete on fga_log$ to delete_catalog_role;
insert into TABLE PRIVILEGE MAP values (27, 'FLASHBACK');
Rem Add new audit options here
Rem update STMT_AUDIT_OPTION_MAP created in sql.bsq
update STMT_AUDIT_OPTION_MAP set NAME = 'MATERIALIZED VIEW'
 where OPTION# = 39;
insert into STMT_AUDIT_OPTION_MAP values (243, 'FLASHBACK ANY TABLE', 0);
insert into STMT AUDIT OPTION MAP values (244, 'GRANT ANY OBJECT PRIVILEGE', 0);
Rem Drop views removed from last release here
Rem These views were missed if the database had been upgraded to 9.0.1.0.0 or
Rem 9.0.1.1.0
drop view HS_EXTERNAL_OBJECTS;
drop public synonym HS_EXTERNAL_OBJECTS;
drop view HS_EXTERNAL_OBJECT_PRIVILEGES;
drop public synonym HS_EXTERNAL_OBJECT_PRIVILEGES;
drop view HS_EXTERNAL_USER_PRIVILEGES;
drop public synonym HS_EXTERNAL_USER_PRIVILEGES;
drop view V $LOGSTDBY APPLY;
drop public synonym V$LOGSTDBY_APPLY;
drop view GV_$LOGSTDBY_APPLY;
drop public synonym GV$LOGSTDBY_APPLY;
drop view V $LOGSTDBY COORDINATOR;
drop public synonym V$LOGSTDBY_COORDINATOR;
drop view GV_$LOGSTDBY_COORDINATOR;
drop public synonym GV$LOGSTDBY_COORDINATOR;
```

insert into SYSTEM_PRIVILEGE_MAP values (-67, 'DROP ANY RULE', 1);

```
delete from dependency$ where d obj# in (select obj# from obj$ where name in
  ('V_$LOADCSTAT', 'GV_$LOADCSTAT', 'V_$LOADTSTAT', 'GV_$LOADTSTAT'));
alter system flush shared_pool;
drop view V $LOADCSTAT;
drop public synonym V$LOADCSTAT;
drop view GV_$LOADCSTAT;
drop public synonym GV$LOADCSTAT;
drop view V_$LOADTSTAT;
drop public synonym V$LOADTSTAT;
drop view GV $LOADTSTAT;
drop public synonym GV$LOADTSTAT;
Rem
Rem Drop packages removed from last release here
Rem This package was missed if the database had been upgraded to 9.0.1.0.0 or
Rem 9.0.1.1.0
drop package DBMS_HS_EXTPROC;
drop package UTL_LOGSTDBY;
Rem Add changes to sql.bsq dictionary tables here
Rem======
REM add instance# to sumdep$
ALTER TABLE sys. sumdep$
ADD
                                               /* inline view instance # */
    instance#
              number
CREATE TABLE sys.aq\_replay_info(
 eventid NUMBER NOT NULL, -- queue id used as event id
                     sys.aq$_agent NOT NULL, -- sender agent
       agent
       correlationid varchar2(128)
                                       -- correlation id.
rem
rem Streams tables
rem
rem NOTE: the following tables are created in i0900010.sql:
     - streams$_prepare_object
rem
     - streams$_prepare_ddl
rem
     - apply$ source obj
rem
     - apply$_source_schema
rem
rem
```

Rem remove obsolete fixed view information

```
create table streams$_capture_process
(
  queue oid
                  raw (16)
                                       not null,
                                                        /* AQ queue identifier */
                  varchar2(30
                                       not null,
                                                             /* AQ queue owner */
  queue_owner
  queue_name
                  varchar2(30
                                       not null,
                                                              /* AQ queue name */
  capture#
                  number
                                       not null.
                                                                     /* 1 to 99 */
  capture_name
                  varchar2(30
                                    ) not null.
  status
                  number,
                                /* capture process status: START, STOP, ABORT */
  ruleset_owner
                  varchar2(30
                                    ),
                                                             /* rule set owner */
  ruleset_name
                  varchar2(30
                                                              /* rule set name */
  logmnr\_sid
                  number.
                                     /* id of the persistent logminer session */
                                  /* needed for creating a persistent session */
                                      /* scn before dictionary dump was taken */
  predumpscn
                  number,
  dumpseqbeg
                  number,
                                      /* first log containing dictionary dump */
                                      /* last log containing dictionary dump */
  dumpseqend
                  number,
                                   /* scn after dictionary dump was processed */
  postdumpscn
                  number,
  flags
                  number.
  start_scn
                  number,
  capture_userid
                                                   /* capture security context */
                  number,
                                     /* used for last_enqueued_message_number */
  spare1
                  number,
  spare2
                  number.
  spare3
                  number
create unique index i_streams_capture_process1 on streams$_capture_process
 (capture#)
create \ unique \ index \ i\_streams\_capture\_process2 \ on \ streams\$\_capture\_process
 (capture_name)
create sequence streams$_capture_inst
                                               /* capture instantiation number */
  increment by 1
  start with 1
 minvalue 1
  maxvalue 4294967295
                                                  /* max portable value of UB4 */
  cycle
  nocache
create table streams$_apply_process
  app1y#
                  number
                                    not null, /* apply#0 is reserved for HaDB */
  apply_name
                  varchar2(30
                                    ) not null,
                                                         /* apply process name */
                  raw (16)
  queue_oid
                                      not null.
                                                        /* AQ queue identifier */
  queue owner
                  varchar2(30
                                    ) not null,
                                                             /* AQ queue owner */
                  varchar2(30
                                    ) not null,
  queue_name
                                                              /* AQ queue name */
  status
                  number,
                                  /* apply process status: START, STOP, ABORT */
  flags
                  number.
                                                        /* apply process flags */
                  varchar2(30
                                                             /* rule set owner */
  ruleset_owner
                                    ),
                  varchar2(30
  ruleset name
                                                              /* rule set name */
  message_handler varchar2(92),
                                                            /* message handler */
  ddl_handler
                  varchar2(92),
                                                                /* DDL handler */
                  number,
                                                     /* apply security context */
  apply_userid
  apply dblink
                  varchar2(128
                                                        /* apply database link */
                                    ),
                  raw(2000
                                                                   /* apply tag */
  apply_tag
  spare1
                  number,
  spare2
                  number,
```

```
spare3
                   number
create unique index i_streams_apply_process1 on
  streams\_apply_process (apply#)
create unique index i_streams_apply_process2 on
  streams$ apply process (apply name)
create index i\_streams\_apply\_process3 on
  streams$_apply_process (queue_oid)
create table streams$_propagation_process
                              varchar2(30
                                                ) not null,
  propagation_name
  source_queue_schema
                              varchar2(30
                                                ),
                              varchar2(30
  source_queue
  {\tt destination\_queue\_schema}
                              varchar2(30
                              varchar2(30
  destination_queue
  destination dblink
                              varchar2(128
                              varchar2(30
  ruleset schema
                                                ),
  ruleset
                              varchar2(30
  spare1
                              number,
  spare2
                              varchar2(128
                                                )
create \ unique \ index \ streams\$\_prop\_p\_i1 \ on \ streams\$\_propagation\_process
(propagation_name)
create \ unique \ index \ streams\$\_prop\_p\_i2 \ on \ streams\$\_propagation\_process
(source_queue_schema, source_queue, destination_queue_schema,
 destination_queue, destination_dblink)
rem Table to store parameters for capture and apply processes.
create table streams$_process_params
  process_type
                      number not null,
                                                        /* 1 -> apply process */
                                                        /* 2 -> capture process */
  process#
                      number not null,
                                                                 /* X_process # */
  name
                      varchar2(128
                                       ) not null,
                                                              /* parameter name */
                                       ),
                                                             /* parameter value */
  value
                      varchar2(4000
                                          /* 1 if changed by user, 0 otherwise */
  user_changed_flag number,
                                 /* 1 if internal param, 0 if exposed to user */
  internal_flag
                      number,
  spare1
                      number
create unique index i\_streams\_process\_params1 on
  streams$_process_params (process_type, process#, name)
create\ table\ streams\$\_apply\_milestone
(
                                      not null,
  app1y#
                  number
  source_db_name
                  varchar2(128
                                    ) not null,
  oldest\_scn
                   number
                                       not null,
  {\tt commit\_scn}
                  number
                                      not null,
```

```
number
                                                                                                      not null,
                                                                                                                                                             /* Synch-point SCN. */
      synch_scn
                                                  number
                                                                                                      not null,
                                                                                                                                                        /* Incarnation number */
     epoch
     processed scn
                                                 number
                                                                                                      not null,
                                                                             /* all complete txns < processed_scn are applied */
     {\tt apply\_time}
                                                  date,
     {\tt applied\_message\_create\_time\ date,}
     spare1
                                                 number
create \ unique \ index \ i\_streams\_apply\_milestone1 \ on \ streams\$\_apply\_milestone2 \ on \ streams\$\_apply\_milestone3 \ on \ stre
 (apply#, source_db_name)
rem No constraints on this table it has to be really high performance
rem since it is inserted on every txn
create table streams$_apply_progress
(
                                                 number,
     app1y#
     source\_db\_name
                                                varchar2(128
                                                                                                ),
     xidusn
                                                 number,
     xids1t
                                                 number.
     xidsqn
                                                 number,
     {\tt commit\_scn}
                                                  number,
      spare1
                                                  number
create table streams$_key_columns
(
                                       varchar2(30
                                                                                     ) not null,
     sname
                                       varchar2(30
                                                                                     ) not null,
     oname
     type
                                       number
                                                                                          not null,
     cname
                                       varchar2(30
                                                                                     ) not null,
                                       varchar2(128
                                                                                     ),
     dblink
                                      varchar2(4000
                                                                                     ),
     long_cname
     spare1
                                       number
create unique index i\_streams\_key\_columns on
      streams$_key_columns(sname, oname, type, cname, dblink)
rem table used for deferred proedure calls
create table streams$_def_proc
     base_obj_num
                                                    number,
     flags
                                                    number,
     owner
                                                    varchar2(30
                                                                                                   ),
                                                    varchar2(30
                                                                                                   ),
     package_name
     procedure_name
                                                    varchar2(30
                                                                                                   ),
                                                    varchar2(30
                                                                                                   ),
     param name
     param_type
                                                    number,
                                                    raw(2000
                                                                                    ),
     raw_value
     number_value
                                                    number,
     date value
                                                    date,
     varchar2_value
                                                    varchar2 (4000
     nvarchar2_value nvarchar2(1000),
     clob_value
                                                    clob,
```

```
blob_value
                   blob,
  nclob_value
                   nclob
{\tt rem\ streams\$\_rules\ is\ populated\ by\ APIs\ in\ dbms\_streams\_adm}
create table streams$ rules
                       varchar2(30
                                                /* capture/apply/prop process */
  streams_name
  streams_type
                       number,
                                     /* capture (1), propagation(2), apply (3)*/
                                                           /* dm1 (1), dd1 (2) */
  rule_type
                       number.
  include\_tagged\_lcr
                       number.
                                                                     /* 0 or 1 */
  source_database
                       varchar2(128
                                                       /* source database name */
  rule_owner
                       varchar2(30
                                         ),
                                                                 /* rule owner */
                       varchar2(30
                                         ),
                                                 /* system generated rule name */
  rule_name
  rule_condition
                                             /* system generated rule context */
                       varchar2 (4000
                                         ),
  dml condition
                       varchar2 (4000
                                         ), /* NULL except for row subsetting */
                                            insert (1), update(2), delete (3) */
  subsetting_operation number,
  schema_name
                       varchar2(30
                                             /* schema name, null for db type */
                                         ),
  object_name
                       varchar2(30
                                       /* table name, null for schema/db type */
                                      /* table(1), schema(2), database (3) */
  object_type
                       number,
  spare1
                       number,
  spare2
                       number,
                       number
  spare3
create unique index i_streams_rules1 on
  streams$_rules(rule_owner, rule_name)
create index i_streams_rules2 on
  streams$_rules(schema_name, object_name)
rem This table allows multiple objects in the destination subscribed to the
rem same source object.
create table apply$_dest_obj
                                                                      /* seq # */
  id
                  number
                                      not null,
                  varchar2(30
                                    ) not null,
  source_owner
                                                           /* source obj owner */
  source name
                  varchar2(30
                                    ) not null,
                                                            /* source obj name */
                  number
                                not null, /* type of source obj and dest obj */
  type
  owner
                  varchar2(30
                                    ) not null,
                                                             /* dest obj owner */
  name
                  varchar2(30
                                    ) not null,
                                                              /* dest obj name */
  app1y#
                  number,
                                       /* apply process assigned to this dest */
  status
                  number,
                                             /* such as pending, ready, error */
  error_notifier
                  varchar2 (92),
                                             /* function to invoke for errors */
  spare1
                  number
create unique index i apply dest obj1 on
  apply$_dest_obj (id)
rem source and apply# uniquely identify a destination
create unique index i apply dest obj2 on
  apply$_dest_obj (source_owner, source_name, type, apply#)
rem destination and apply# uniquely identify a source
```

```
create unique index i_apply_dest_obj3 on
  apply$_dest_obj (owner, name, type, apply#)
rem sequence for apply$_dest_obj.id
create sequence apply$_dest_obj_id nocache
rem column mapping between source and destination tables
create table apply$_dest_obj_cmap
                   number
                                                       /* id of parent row in */
  {\tt dest\_id}
                                      not null.
                                                           /* apply$ dest obj */
                   varchar2 (4000
                                    ) not null,
                                                        /* source column name */
  src_long_cname
  dest_long_cname varchar2(4000
                                    ),
                                                   /* destination column name */
                                           /* if null, same as src_long_cname */
  spare1
                   number
rem we need to add src\_long\_cname to this index but it is \gt max key len
create index i_apply_dest_obj_cmap1 on
 apply$_dest_obj_cmap (dest_id)
rem apply operations associated with destination object
create table apply$_dest_obj_ops
                                                       /* id of parent row in */
  object_number
                       number not null,
                                                       /* obj$
  apply_operation
                       number not null,
                                                      /* apply operation type */
                                                      /* 1 -> INSERT
                                                                               */
                                                      /* 2 -> UPDATE
                                                                               */
                                                      /* 3 -> DELETE
                                                      /* 4 -> BLOB_UPDATE
                                                      /* 5 -> CLOB UPDATE
                                                                               */
                                                      /* 6 → NCLOB UPDATE
                                                                               */
  error handler
                       char (1),
                                                      /* 'Y' if error handler */
                                                      /* 'N' if not
  user_apply_procedure varchar2(92), /* if user_apply_procedure is null,
                                                                               */
                                      /* default apply rules will be used
                                                                               */
                                      /st or if there is no child row in
                                                                               */
                                       /* apply$_dest_obj_ops
                                                                               */
                                       /* for apply$_dest_obj.id
  spare1
                       number,
  spare2
                       number,
  spare3
                       number
create unique index i\_apply\_dest\_obj\_ops1 on
  apply$_dest_obj_ops (object_number, apply_operation)
rem table used to store error transaction information
create table apply$_error
(
  local transaction id varchar2(22
                                                /* Tid of error creation txn */
  source_transaction_id varchar2(22
                                             /* transaction id at the source */
  source_database
                        varchar2(128
                                         ), /* node which originated this txn */
                                                        /* local queue owner */
  queue_owner
                        varchar2(30
                                         ) not null,
```

```
varchar2(30
  queue_name
                                          ) not null,
                                                           /* local queue name */
                         number not null, /* apply engine processing the txn */
  app1y#
                                            /* message which caused the error */
  message number
                         number,
                                             /* Number of messages in the txn */
  message_count
                         number,
  min_step_no
                         number,
                                            /* min step no in exception queue */
  recipient_id
                         number,
                                          /* User ID of the original receiver */
  recipient_name
                         varchar2(30
                                          ),
                                        /* User name of the original receiver */
  source\_commit\_scn
                                           /* original commit SCN for the txn */
                         number,
  error_number
                         number,
                                                     /* error number reported */
                                                      /* explanation of error */
  error_message
                         varchar2 (4000
                                          ),
  aq_transaction_id
                         varchar2(30),
                                                          /* AQ transaction id */
  spare1
                         number,
  spare2
                         number,
  spare3
                         number
create unique index streams$_apply_error_unq
 on apply$_error(local_transaction_id)
rem tables required for conflict resolution
rem apply$_error_handler_sequence is used to generate a value
{\tt rem \ for \ log\_group\_id \ in \ apply\$\_error\_handler.}
create sequence apply$_error_handler_sequence start with 1
rem stores all conflict resolution methods
create table apply$_error_handler
  object_number
                          number, /* table obj# error handler is defined for */
  method_name
                          varchar2(92),
                                                             /* name of method */
  resolution\_column
                          varchar2(4000
                                           ), /* column used to resolve error */
  resolution id
                         number,
                                           /* id number for the error handler */
  spare1
                          number
create unique index apply$_error_handler_unq
 on apply$_error_handler(resolution_id)
rem stores the column list for update column resolution
create table apply$_conf_hdlr_columns
(
  object_number number,
                                   /* table obj# error handler is defined for */
  resolution_id number,
                                           /* id number for the error handler */
                                       /* name of a column in the column list */
  column_name
               varchar2(30
                                                 /* for a update conf handler */
                number
  spare1
create unique index apply$_conf_hdlr_columns_unq1
 on apply$_conf_hdlr_columns(object_number, column_name)
create unique index apply$_conf_hdlr_columns_unq2
 on apply$_conf_hdlr_columns(resolution_id, column_name)
```

```
Rem End: Streams tables
REM support for aw$ and ps$
create table aw$
(awname varchar2(30),
                                          /* name of AW */
                                          /* owner of AW */
 owner# number not null,
 awseq# number not null)
                                          /* aw sequence number */
create unique index aw_ind$ on aw$(awname, owner#)
create table ps$
(awseq# number not null,
                                          /* aw sequence number */
 psnumber number (10),
                                          /* pagespace number */
 psgen number (4),
                                          /* pagespace generation */
 mapoffset number,
                                          /* offset of map */
                                          /* max pages in ps */
 maxpages number,
 almap raw(8),
                                          /* location of map in lob */
 header raw(200),
                                          /* our header */
 gelob blob)
                                          /* gel storage */
 lob (gelob) store as (disable storage in row)
create unique index i_ps$ on ps$ (awseq#, psnumber, psgen)
create sequence psindex_seq\$ /* sequence for pagespace index */
 start with 100
 increment by 1
 nocache
 nocycle
 maxvalue 18446744073709551615
create sequence awseq\$ /* sequence for aw index */
  start with 1000
  increment by 1
  nocache
  nocycle
  maxvalue 4294967295
REM add action line offset to trigger$
ALTER TABLE sys. trigger$
ADD
    actionlineno number
)
\label{thm:local_result} \mbox{Rem Update TAB\$ to indicate that ROW MOVEMENT was enabled sometime in the}
Rem past if ROW MOVEMENT is currently set.
update tab$ set trigflag = trigflag + 2097152
```

Rem

```
where bitand(flags, 131072) = 131072 and
      bitand(trigflag, 2097152) = 0;
Rem Update IND$ to reset ts# for indices on temporary tables.
Rem Flags to check are 0x400000 and 0x800000, global and session flags.
Rem =======
alter system flush shared_pool;
update ind$ set ts# = 0
where ts# != 0 and
      bo# in (select obi# from tab$
             where bitand(property, 12582912) != 0);
Rem The following SQL stmts. add support for Range List partitioned objects
Rem add columns hiboundlen, hiboundval and bhiboundval to {tab|ind}subpart$
Rem ====== begin of Range List partitioned objects upgrade ======
alter table tabsubpart$ add (
       hiboundlen number, /* length, high bound value */
       hiboundval long,
                          /* text, high-bound value */
       bhiboundval blob ) /* binary linear key, high bound */
update tabsubpart$ set hiboundlen = 0
alter table tabsubpart$ modify (hiboundlen not null)
alter table indsubpart$ add (
       hiboundlen number, /* length, high bound value */
       hiboundval
                             /* text, high-bound value */
                   long.
       bhiboundval blob ) /* binary linear key, high bound */
update indsubpart$ set hiboundlen = 0
alter table indsubpart$ modify (hiboundlen not null)
Rem remove unnecessary indexes. they don't improve select
Rem performance and actually degrade partition DDL performance.
Rem create indexes on lobfrag$ and lobcomppart$.
Rem
drop index i_tabpart$_bopart$
drop index i_indpart$_bopart$
drop index i_tabsubpart$_pobjsubpart$
drop index i indsubpart$ pobjsubpart$
drop index i_tabcompart$_bopart$
drop index i indcompart$ bopart$
drop index i_lobfrag$_parentobjfrag$
```

```
drop index i_lobcomppart$_partlobj$
create index i_lobfrag$_parentobj$ on lobfrag$(parentobj#)
create index i_lobcomppart$_partlobj$ on lobcomppart$(lobj#)
create index i_lobfrag$_fragobj$ on lobfrag$(fragobj#)
Rem\ resource\_plan\_directive\$\ column\ default\ value\ changes
Rem ========
update resource_plan_directive$
       parallel_degree_limit_p1=4294967295
where parallel\_degree\_limit\_p1=1000000
update resource_plan_directive$
       active_sess_pool_p1=4294967295
set
where active\_sess\_pool\_p1=1000000
update resource_plan_directive$
       queueing p1=4294967295
set
where queueing_p1=1000000
update resource_plan_directive$
       switch_time=4294967295
set
where switch_time=1000000
update resource_plan_directive$
     max_est_exec_time=4294967295
set
where max_est_exec_time=1000000
update resource_plan_directive$
set
     undo_poo1=4294967295
where undo_pool=1000000
commit
REM Add changes to security dictionary objects here
REM re-create i\_rls - synonym and it's base object may have the same policy name
  EXECUTE IMMEDIATE 'drop index i_rls';
EXCEPTION
   WHEN OTHERS THEN
      IF SQLCODE = -1418 THEN NULL;
      ELSE RAISE;
      END IF;
END;
/
create index i_rls on rls$(obj#, gname, pname);
REM add synonym id for policy group
```

```
alter table rls_grp$ add (synid number default null);
REM add synonym id for driving context
alter table rls_ctx$ add (synid number default null);
alter table fga_log$ add (
         1sqltext clob,
         plho1
                  long );
update fga_log$ set lsqltext = to_clob(sqltext);
Rem Add changes to other SYS dictionary objects here
Rem Add indexes on lob$ and lobcomppart$ to improve Metadata API performance.
create unique index i lob2 on lob$(lobj#)
create \ index \ i\_lobcomppart\$\_partobj\$ \ on \ lobcomppart\$(partobj\#)
Rem remove obsoleted table and view for ext to obj
drop table EXT_TO_OBJ;
drop view EXT_TO_OBJ_VIEW;
Rem add data dictionary objects for file mapping
create table map_file$ (
  file_idx
                number,
                                               /* file index */
                                                /* file configuration id */
  file_cfgid
                varchar2 (2000),
  file_status
                number,
                                                /* file status */
  file_name
                varchar2(2000),
                                               /* file name */
  file_struct
                number,
                                                /* file structure */
                                               /* file type */
  file_type
                number,
  file_size
                                                /* file size */
                number,
  file nexts
                number
                                                /* file number of extents */
create table map_file_extent$(
                                            /* file index */
  {\tt file\_idx}
               number,
  ext_num
               number,
                                            /* file extent number */
  ext_dev_off number,
                                            /* element offset */
                                            /* file extent size */
  ext_size
               number,
                                            /* file offset */
  ext_file_off number,
                                            /* file extent type */
  \operatorname{ext\_type}
               number,
               varchar2(2000),
  e1em_name
                                             /* element name */
  elem_idx
               number
                                             /* element index */
create table map_subelement$(
                                             /* subelement number */
  sub num
               number,
  sub_size
               number,
                                             /* subelement size */
                                            /* element offset */
  elem_offset number,
                                            /* subelement flags */
  {\tt sub\_flags}
               number.
  parent idx
              number,
                                            /* parent element index */
  child_idx
               number,
                                             /* child element index */
  elem_name
               varchar2 (2000)
                                             /* element name */
)
```

```
create table map_element$ (
                varchar2 (2000),
                                             /* element name */
  elem name
                varchar2 (2000),
                                             /* element configuration id */
  elem_cfgid
  elem_type
                number,
                                             /* element type */
  elem\_idx
                number.
                                             /* element index */
  elem_size
                number.
                                             /* element size */
                                             /* number of subelements */
  elem nsubelem number,
  elem_descr
                varchar2 (2000),
                                             /* description */
  stripe_size
                number,
                                             /* element stripe size */
                                             /* flags */
  elem_flags
                number
create table map_extelement$ (
                                             /* element index */
  elem\_idx
                number,
                number,
                                             /* number of attributes */
  num_attrb
  attrb1_name
                varchar2(30),
                                             /* attribute 1 name */
                                             /* attribute 1 value */
  attrb1_val
                varchar2(30),
  attrb2_name
                varchar2(30),
                                             /* attribute 2 name */
                                             /* attribute 2 value */
  attrb2\_va1
                varchar2(30),
                varchar2(30),
                                             /* attribute 3 name */
  attrb3 name
  attrb3 val
                varchar2(30),
                                             /* attribute 3 value */
  attrb4_name
                varchar2(30),
                                             /* attribute 4 name */
  attrb4\_val
                varchar2(30),
                                             /* attribute 4 value */
                                             /* attribute 5 name */
  attrb5 name
                varchar2(30),
                varchar2(30)
                                             /* attribute 5 value */
  attrb5 val
create table map_complist$ (
                                             /* element index */
  elem_idx
                number.
                number,
                                             /* number of components */
  num comp
                varchar2(30),
                                             /* component 1 name */
  comp1 name
                varchar2 (2000),
                                             /* component 1 value */
  comp1\_va1
  comp2_name
                varchar2(30),
                                             /* component 2 name */
                varchar2 (2000),
                                             /* component 2 value */
  comp2_va1
  comp3 name
                varchar2(30),
                                             /* component 3 name */
                varchar2 (2000),
  comp3_va1
                                             /* component 3 value */
  comp4_name
                 varchar2(30),
                                             /* component 4 name */
  comp4_val
                varchar2 (2000),
                                             /* component 4 value */
                varchar2(30),
                                             /* component 5 name */
  comp5_name
  comp5 val
                 varchar2 (2000)
                                             /* component 5 value */
create global temporary table map_object (
                varchar2 (2000),
  object_name
                                             /* object name */
  object_owner
                varchar2 (2000),
                                             /* object owner */
                varchar2 (2000),
                                             /* object type */
  object_type
  file_map_idx
                number,
                                             /* file index */
  depth
                                             /* element depth */
                number.
  elem_idx
                                             /* element index */
                number.
  cu size
                number,
                                             /* contiguous unit size */
  stride
                number,
                                             /* stride size */
  num_cu
                number,
                                             /* number of contiguous units */
                                             /* element offset */
  elem\_offset
                number,
  file offset
                                     /* file offset */
                number.
                varchar2(2000),
                                             /* data type */
  data_type
  parity_pos
                number,
                                             /* parity position */
  parity_period number
                                             /* parity period */
```

```
) on commit preserve rows
create public synonym map_object for sys.map_object
grant select on map_object to select_catalog_role
grant all on map_object to dba
{\it Rem\ make\ index\ on\ exppkgobj\$\ unique\ on\ two\ columns}
Rem =======
drop index i_objtype
create unique index i_objtype on exppkgobj$(type#, class)
Rem=====
Rem Make changes to the transformations$ table
Rem=====
ALTER TABLE sys. transformations ADD (from_schema varchar2(30));
ALTER TABLE sys. transformations$ ADD (from_type varchar2(30));
ALTER TABLE sys. transformations$ ADD (to_schema varchar2(30));
ALTER TABLE sys. transformations$ ADD (to_type
                                            varchar2(30));
Rem Add changes to SYSTEM objects here
ALTER TABLE system.aq$_queues ADD (memory_threshold NUMBER);
Rem The following block of code upgrades the Object Type System to 9.2.0
Rem It must be done before attempting to create/alter any user-defined
Rem ====== begin of system type upgrade ======
Rem initialize kotadx object type
CREATE OR REPLACE LIBRARY UPGRADE_LIB TRUSTED AS STATIC
CREATE OR REPLACE PROCEDURE upgrade_system_types_from_901 IS
LANGUAGE C
NAME "UPG_FROM_901"
LIBRARY UPGRADE_LIB;
DECLARE
cnt NUMBER;
objid raw(16);
objnm number;
patch_eoids boolean := FALSE;
BEGIN
```

```
cnt := 0;
 -- Check if type kotadx exists
 select count(*) into cnt from obj$ o, user$ u where
  o.name = 'KOTADX' and
   o.owner#=u.user# and u.name='SYS' and o.type#=13;
 -- Only run this once
 IF cnt = 0 THEN
  upgrade_system_types_from_901();
 END IF;
END:
set serveroutput off;
Rem END STAGE 1: upgrade from 9.0.1 to 9.2.0
Rem BEGIN STAGE 2: Upgrade from 9.2.0 to the new release
@@c0902000
\mbox{Rem END STAGE 2: upgrade from } 9.\,2.\,0 to the new release
Rem======
Rem END c0900010.sql
```