PURGING SELF SERVICE SESSIONS
in Oracle E-Business Suite 11i series

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It always surprises me how many sites do not purge self service sessions. Why is this?

The self service purge concurrent program is NOT easily identified and is NOT assigned by default to the system administrator privilege which is why most sites miss it.

This paper will explain how to setup self service purging and how to assign the purge program to the system administrator privilege.

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1 Background

Many sites do not purge their self service session objects, these objects include:

- ICX_SESSIONS
- ICX_SESSION_ATTRIBUTES
- ICX_TRANSACTIONS
- ICX_TEXT
- ICX_CONTEXT_RESULTS_TEMP
- ICX_FAILURES
- ICX_REQUISITIONER_INFO
- FND_SESSION_VALUES

Failure to purge the self service session and temporary data will, over time, result in performance issues and large volumes of temporary data being stored on-line.

It appears Oracle knew this could be a problem: - Metalink Note 130664.1 “Performance Slow in Self Service Web Applications?” and suggests:

> ***“For best performance, set up this program to run on a regular basis several times per day, for example, every 30 minutes.***

The default program deletes any record older then 4 hours, regardless of the session being active.

Even if you have not installed Oracle Self-Service Web Applications you may still need to purge self service sessions as some functions of the Self Service Web Applications are available to the base E-Business Suite application. If those functions are used, the Self Service temporary objects will grow.

1.1 Not as easy as it looks

The self service purge concurrent program is **NOT** easily identified and is **NOT** assigned by default to the system administrator privilege which is why most sites miss it. The program which can be found under the “Oracle Self Service Web Applications” responsibility is named “**Delete data from temporary table**” so it not immediately obvious that this is the concurrent program that purges the self service objects. The program calls an SQL script ICXDLTMP.sql

1.2 To make things more difficult

Some versions of 11i had an incorrect version of ICXDLTMP.sql that does not contain the statements to purge ICX_SESSIONS and ICX_SESSION_ATTRIBUTES.

- Metalink Note: 383043.1
- Check Patch Patch 5436936

1.3 One final note

WARNING: The default purge program ICXDLTMP.sql "Delete data from temporary table" purges all data older then **4 hours**.

If you do not change the default purge timings (manual task) and you run the purge program during the working day you run the risk of causing active self service sessions to terminate. The purge program does not check for active self service sessions before deleting them.

Note From Metalink: - The most common cause for this Intermittent session and form issues is that many customers are running the concurrent program "Delete data from temporary table" on an hourly basis. This kills active sessions that are more than four hours old by executing the script named ICXDLTMP.sql. This should generally be run no more than nightly – "and Oracle said every 30 min before…".

2 Purging Self Service Sessions

In this section we will assess the damage, recommend the amount of history to keep on-line, explain what to edit in the purge program and the steps to assign the "**Delete data from temporary table**" program to the System Administrator responsibility, so it is easy to find and run by the Systems Administrator.

2.1 Step 1: Assess the damage

Run a row count on the eight (8) objects mentioned in the Background Section. Also get the age of the oldest record in the icx_session table.

```
SELECT min(first_connect),
       count(*)
  FROM icx.icx_sessions;
```

I believe you will be quite surprised…

Make sure you run row counts after the purge so you can demonstrate how much space you have reclaimed.

You can use this information to demonstrate why you need to purge and to show the affect of your efforts.

2.2 STEP 2: How much data to keep?

Decide on the amount of on-line history you wish to keep in the self service sessions tables.

I personally prefer to hold 32 days (1 month) history on-line, as this allows for reporting on monthly self service activity. If this is considered excessive, then hold 15 days (two weeks) or 8 days (1 week)

Do not hold less than 1 day's data as this may cause abnormal termination of active self service sessions that have been active for longer than 1 day.

Note: Unless the data is being used for audit or reporting purposes the general business community / users will have no idea that the data is being held. It is only of value for active self service sessions, Audit and activity reporting.

2.3 STEP 3: Edit the program ICXDLTMP.sql

The purge program is located in $ICX_TOP/sql

Note: In release 12 the program will be located in $FND_TOP

Locate the file ICXDLTMP.sql edit the file to change amount of history to be held on-line.

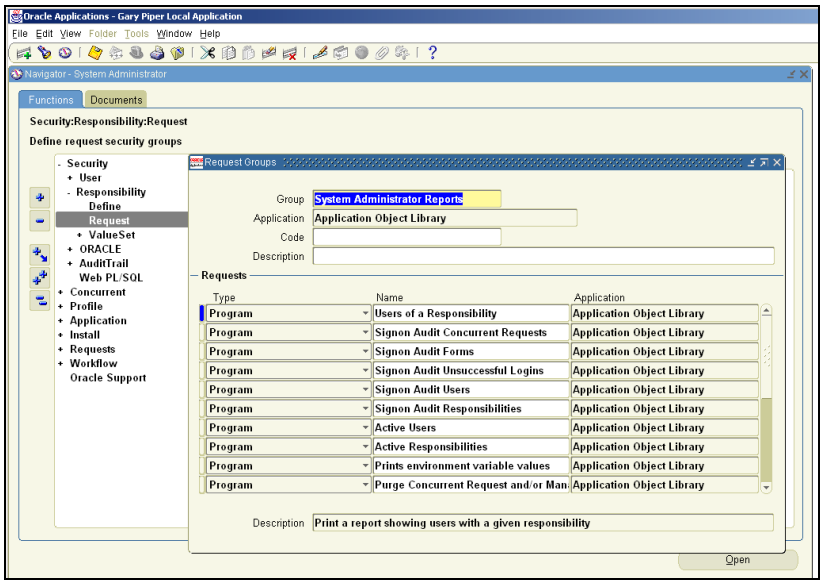
An example ICXDLTMP.sql that holds 32 days history on-line is included below.

WARNING: If you have never purged self service sessions data then there may insufficient rollback segments to complete the purge. If this is the case I suggest running the purge manually starting with all records older than 1 year, then 6 months etc.…

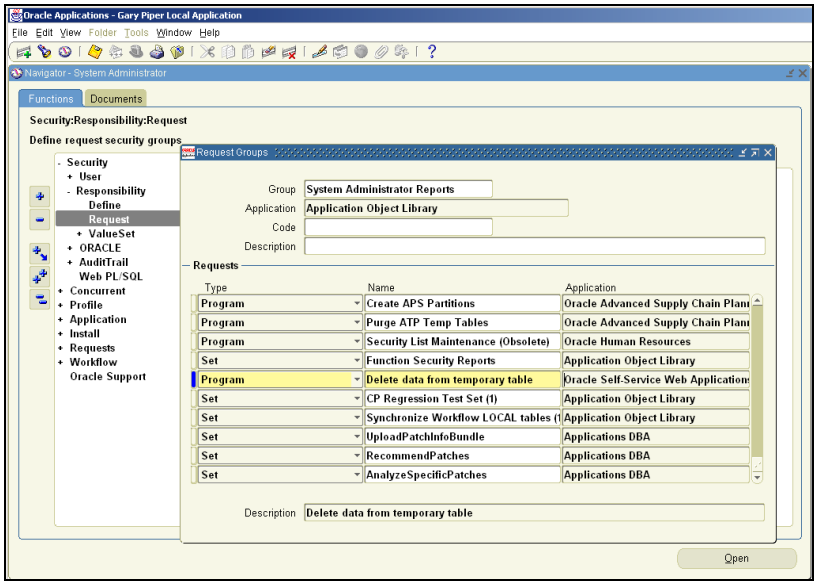
2.4 STEP 4: Make the program available to the Systems Administrator

Assign the "**Delete data from temporary table**" program to the System Administration Responsibility by adding the program to the "System Administration Reports" Request Group.

Responsibility: System Administrator
Navigation: Security > Responsibility > Request



Add the program “Delete data from temporary table” making sure the program application is “Oracle Self Service Web Applications”



2.5 STEP 5: Run a daily scheduled request

Connecting as the systems administrator responsibility you will now see the “Delete data from temporary table” program in the available programs list.

Run the request as a scheduled nightly request as per normal.

2.6 STEP 6: Maintenance activities

Don't forget to:

1. Run a regular index rebuild on the following objects:

- ICX_SESSIONS
- ICX_SESSION_ATTRIBUTES
- ICX_TRANSACTIONS
- ICX_TEXT
- ICX_CONTEXT_RESULTS_TEMP
- ICX_FAILURES
- ICX_REQUISITIONER_INFO
- FND_SESSION_VALUES

2. Collect stats at least monthly on the ICX schema

> **Note:** If you purge on a nightly basis and hold the same number of days history, you only need to collect stats no more than monthly as the base record count should remain relatively static.

3 Disclaimer

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4 Example ICXDLTMP.sql

THE FOLLWING CODE IS AN EXAMPLE ONLY
***** DO NOT USER THIS CODE *****
COPY AND ADJUST THE CODE PROVIDED WITH THE APPLICATION

```
REM dbdrv: none
REM $Header: ICXDLTMP.sql 115.8 2002/10/04 20:08:36 nlbarlow ship $
REM +=======================================================================+
REM |    Copyright (c) 1995 Oracle Corporation, Redwood Shores, CA, USA     |
REM |                         All rights reserved.                          |
REM +=======================================================================+
REM | FILENAME                                                              |
REM |     ICXDLTMP.sql                                                     |
REM |                                                                       |
REM | DESCRIPTION                                                           |
REM |    Delete from ICX temporary tables                                   |
REM |                                                                       |
REM | NOTES                                                                 |
REM |    This is current set to delete records over 4 hours old.            |
REM |    You may refine this by altering the (4 * 60 * 60) to the number of |
REM |    seconds you want to delete from.                                   |
REM |                                                                       |
REM | HISTORY                                                               |
REM |   21-APR-96       nlbarlow      Created                               |
REM |   26-Aug-96       wlang         Modified for R11                      |
REM |   23-Sep-97       nlbarlow      Added icx_context_results_temp        |
REM |   20-Oct-97       wlang         Converted to use sysdate - 4/24.      |
REM |                                 4/24 is 4 hours, we can change it     |
REM |                                 to support minutes as we see fits.    |
REM |   14-Nov-97       rtung         Added delete cs_incidents_ctx_results |
REM |                                to delete Knowledge Base search results |
REM | 27-JUN-00 nlbarlow 1349579, Added ICX_TRANSACTIONS                    |
REM |   01-Jul-02       syoung        Added fnd_session_values              |
REM |                                   (table in fnd - afsec.odf)          |
REM |   17-Jul-02       syoung        Added PL/SQL calls to                 |
REM |                                 fnd_bc4j_cleanup_pkg (FNDBCCLS.pls.)  |
REM |   04-Oct-02       nlbarlow        Added ICX_SESSION_ATTRIBUTES        |
REM |   08-Feb-06       G.Piper         Maintain 32 days history            |
REM +=======================================================================+

SET VERIFY OFF
WHENEVER SQLERROR EXIT FAILURE ROLLBACK;
WHENEVER OSERROR EXIT FAILURE ROLLBACK;

delete  icx_sessions
where   CREATION_DATE < SYSDATE - 32;

delete  icx_session_attributes
where   SESSION_ID not in
        (select SESSION_ID
         from   icx_sessions);

delete  icx_transactions
where   CREATION_DATE < SYSDATE - 32;

delete  icx_text
where   TIMESTAMP < SYSDATE - 32;

delete  icx_context_results_temp
where   DATESTAMP < SYSDATE - 32;

delete  icx_failures
where   CREATION_DATE < SYSDATE - 32;

delete  icx_requisitioner_info
where   CREATION_DATE < SYSDATE - 32;
```

```
delete  fnd_session_values
where   TIMESTAMP < SYSDATE - 32;

commit;

begin
    fnd_bc4j_cleanup_pkg.delete_transaction_rows(SYSDATE - 32);
    fnd_bc4j_cleanup_pkg.delete_control_rows(SYSDATE - 32);
end;
/
exit;
```