

Preparing the RMFT Database for Oracle Character Set Migration

Software Version 2.5

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Introduction

To be compatible with RMFT 2.5, the Oracle NLS_CHARACTERSET encoding needs to be AL32UTF8 and the NLS_NCHAR_CHARACTERSET encoding needs to be AL16UTF16. If this is not the case, you will need to export the existing RMFT database, migrate the character set and then import the RMFT database. This guide explains how to verify the existing character set encoding and, if required, how to export and import the RMFT database.

For more information on character set migration, see:

http://download.oracle.com/docs/cd/B10501_01/server.920/a96529/ch10.htm

Verifying the Existing Character Set Encoding

To verify the NLS_CHARACTERSET and the NLS_NCHAR_CHARACTERSET encoding, run the following database query (case-sensitive):

```
SELECT PARAMETER, VALUE FROM SYS.NLS_DATABASE_PARAMETERS
WHERE (PARAMETER = 'NLS_CHARACTERSET') OR (PARAMETER = 'NLS_NCHAR_CHARACTERSET')
```

If the NLS_CHARACTERSET and the NLS_NCHAR_CHARACTERSET are anything other than AL32UTF8 and AL16UTF16 respectively, they need to be migrated.

Migrating to the Required Character Sets

The character set migration process consists of three stages: Deleting old records to improve efficiency, exporting the RMFT database, migrating to the required character sets and finally, importing the RMFT database.

IMPORTANT: All RMFT service must be stopped prior to migrating the character sets.

To migrate Oracle character sets:

1. Run the following query to delete old records from the `SchemaName.BH_Package_Reports` table (replace `SchemaName` with the name of the RMFT database schema):

Note: Replace the date below with the current date, minus seven days.

```
DELETE FROM SchemaName.BH_Package_Reports
WHERE BH_Package_Id IN
(
  SELECT DISTINCT BH_Package_Id
  FROM SchemaName.BH_Package_Reports PR
  WHERE
    NOT EXISTS
      (SELECT BH_Package_Id FROM SchemaName.BH_Packages P WHERE
(P.BH_Package_Id=PR.BH_Package_Id))
    AND
      (BH_Report_Time < TO_DATE('2010-08-29','YYYY-MM-DD'))
)
```

2. Run the following query to delete old records from the `SchemaName.BH_Audits` table (replace `SchemaName` with the name of the RMFT database schema):

Note: Replace the date below with the current date, minus seven days.

```
DELETE FROM SchemaName.BH_Audits
WHERE BH_Id IN
(
  SELECT BH_Id
  FROM SchemaName.BH_Audits
  WHERE (BH_Event_Type IN (4,6))
  AND (BH_Audit_Time <
    TO_DATE('2010-08-29','YYYY-MM-DD'))
)
```

3. Using Oracle's `exp` utility, export the database to a file by issuing the following command:

```
exp user/pass@database-name file=c:\export.dat indexes=n
```

where `user` and `pass` are the username and password of the database schema and `database-name` is the name of the existing database.

Note: The `exp` command requires the TNS to be configure appropriately.

To save time and space, indexes are not exported.

4. Create a new database with character set (NLS_CHARACTERSET) AL32UTF8 and national character set (NLS_NCHAR_CHARACTERSET) AL16UTF16.

5. Create a new database user with the following permissions:

Role: CONNECT, DBA and RESOURCE

System: CREATE ANY VIEW, SELECT ANY DICTIONARY and UNLIMITED TABLESPACE

IMPORTANT: The username and password must be identical to those of the existing database.

6. Using Oracle's imp utility import the data by issuing the following command:

```
imp user/pass@new-database-name full=y file=c:\export.dat
```

Note: The imp command requires the TNS to be configure appropriately.

After running the command, you can remove the DBA permission from the user.

7. On the RMFT Server machine, update the TNS to refer to the new database.

8. Upgrade to RMFT 2.5.