# Practices for Lesson 25: Transporting Data

Practices for Lesson 25: Overview

Overview

In these practices, you will move data from one ORCLPDB to another PDB.

Practice 25-1: Moving Data from One PDB to Another PDB

Overview

In this practice, imagine that you configured ORCLPDB2 with different optimizer parameter values, and you want to test the performance of requests on OE tables in ORCLPDB2 to compare it with the performance of the same queries in ORCLPDB1. Through trial and error, you export all objects from the OE schema from ORCLPDB1 and import them into ORCLPDB2 under a new schema named OETEST for testing purposes.

Assumptions

You are logged in as the oracle user.

Tasks

Export the OE Schema from ORCLPDB1 by Using Data Pump Export

Open a new terminal window and use oraenv to set the environment variables for the

orclcdb database.

Execute the $HOME/labs/DBMod\_LoadTrans/DP\_setup.sh shell script to create tables in ORCLPDB1 and ORCLPDB2.

Launch Data Pump export under a connection as OE in ORCLPDB1 to export all objects belonging to OE. Refer to “Course Practice Environment: Security Credentials” in your Activity Guide for the ***password*** value. Use the DUMPFILE parameter to specify the location and name of the dump file resulting from the export operation.

You will get an error during this operation stating that the file name cannot contain a path specification.

**Question:** What does the error message lead you to do?

**Answer:** Create a logical directory in ORCLPDB1. Directory objects are required when you specify file locations for Data Pump because it accesses files on the server rather than on the client. Directory objects are logical structures that represent a physical directory on the server’s file system. They contain the location of a specific operating system directory.

Directory objects are owned by the SYS user. Directory names are unique across the database because all the directories are located in a single name space.

Start SQL\*Plus and connect to ORCLPDB1 as the SYS user with the SYSDBA privilege. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Create a Oracle logical directory named DP\_FOR\_OE pointing to ‘/u01/app/oracle/admin/orclcdb/dpdump’

Grant the OE user READ WRITE privileges on the DP\_FOR\_OE directory.

Exit SQL\*Plus.

Retry the Data Pump export. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

$ expdp oe/*password*@orclpdb1 schemas=oe directory=dp\_for\_oe dumpfile=expoe.dmp

…

Connected to: Oracle Database 19c Enterprise Edition Release

19.0.0.0.0 - Production

Starting "OE"."SYS\_EXPORT\_SCHEMA\_01": oe/\*\*\*\*\*\*\*\*@orclpdb1 SCHEMAS=oe DIRECTORY=dp\_for\_oe DUMPFILE=expoe.dmp

Processing object type SCHEMA\_EXPORT/TABLE/TABLE\_DATA

Processing object type SCHEMA\_EXPORT/TABLE/INDEX/STATISTICS/INDEX\_STATISTICS

Processing object type SCHEMA\_EXPORT/TABLE/STATISTICS/TABLE\_STATISTICS

Processing object type SCHEMA\_EXPORT/STATISTICS/MARKER Processing object type SCHEMA\_EXPORT/USER

Processing object type SCHEMA\_EXPORT/SYSTEM\_GRANT Processing object type SCHEMA\_EXPORT/ROLE\_GRANT Processing object type SCHEMA\_EXPORT/DEFAULT\_ROLE

Processing object type SCHEMA\_EXPORT/PRE\_SCHEMA/PROCACT\_SCHEMA Processing object type SCHEMA\_EXPORT/SEQUENCE/SEQUENCE Processing object type SCHEMA\_EXPORT/TABLE/TABLE

**Question:** How can you verify that objects other than tables, such as constraints, indexes, and sequences, were exported?

**Answer:** Generate a SQL script from the dump file by performing an import and specifying the SQLFILE parameter.

Use Data Pump Import to generate a SQL script named oe\_SQL.sql from the dump file. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Review the oe\_SQL.sql script. When you execute the import, all DDL statements are read from the dump file.

$ cat /u01/app/oracle/admin/orclcdb/dpdump/oe\_SQL.sql

-- CONNECT OE

ALTER SESSION 1';

ALTER SESSION 1';

ALTER SESSION 1';

ALTER SESSION 1';

ALTER SESSION 1';

ALTER SESSION

192 ';

-- new object type path: SCHEMA\_EXPORT/USER CREATE USER "OE" IDENTIFIED BY VALUES

'S:F89E917CB8DF9BBF5D97E4E372401916569986C0AA39FB65037583079BE6;T:0 6BBF450C895E197E68CFB0F46690E653EE2C73DF32E8B1C25560F90633935D98FF2 D1F15AB0A0B44BD8F534EFDB3E5851FAE9EF1CA034133C0DDCBCEF1BF867E168165 B881A2928097C64C8F413DC74'

DEFAULT TABLESPACE "TBS\_APP" TEMPORARY TABLESPACE "TEMP";

-- new object type path: SCHEMA\_EXPORT/SYSTEM\_GRANT GRANT CREATE SESSION TO "OE";

GRANT UNLIMITED TABLESPACE TO "OE";

-- new object type path: SCHEMA\_EXPORT/ROLE\_GRANT GRANT "DBA" TO "OE";

-- new object type path: SCHEMA\_EXPORT/DEFAULT\_ROLE ALTER USER "OE" DEFAULT ROLE ALL;

-- new object type path: SCHEMA\_EXPORT/PRE\_SCHEMA/PROCACT\_SCHEMA

BEGIN

sys.dbms\_logrep\_imp.instantiate\_schema(schema\_name=>SYS\_CONTEXT('US ERENV','CURRENT\_SCHEMA'), export\_db\_name=>'ORCLPDB1',

inst\_scn=>'4052542'); COMMIT;

END;

/

-- new object type path: SCHEMA\_EXPORT/SEQUENCE/SEQUENCE CREATE SEQUENCE "OE"."ORDERS\_SEQ" MINVALUE 1 MAXVALUE

999999999999 INCREMENT BY 1 START WITH 10 CACHE 20 NOORDER NOCYCLE NOKEEP NOSCALE GLOBAL ;

-- new object type path: SCHEMA\_EXPORT/TABLE/TABLE CREATE TABLE "OE"."ORDER\_ITEMS"

( "ORDER\_ID" NUMBER(12,0), "LINE\_ITEM\_ID" NUMBER(3,0), "PRODUCT\_ID" NUMBER(6,0), "UNIT\_PRICE" NUMBER(8,2), "QUANTITY" NUMBER(8,0)

) SEGMENT CREATION IMMEDIATE

PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255 NOCOMPRESS LOGGING

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS

2147483645

PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1

BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT) TABLESPACE "TBS\_APP2" ;

CREATE TABLE "OE"."ORDERS"

( "ORDER\_ID" NUMBER(12,0),

"ORDER\_DATE" TIMESTAMP (6) WITH LOCAL TIME ZONE, "ORDER\_MODE" VARCHAR2(8 BYTE),

"CUSTOMER\_ID" NUMBER(6,0), "ORDER\_STATUS" NUMBER(2,0), "ORDER\_TOTAL" NUMBER(12,2), "SALES\_REP\_ID" NUMBER(6,0), "PROMOTION\_ID" NUMBER(6,0)

) SEGMENT CREATION IMMEDIATE

PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255

NOCOMPRESS LOGGING

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS

2147483645

PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1

BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT) TABLESPACE "TBS\_APP" ;

-- new object type path: SCHEMA\_EXPORT/TABLE/INDEX/INDEX

CREATE INDEX "OE"."I\_ORDER\_ITEMS" ON "OE"."ORDER\_ITEMS" ("ORDER\_ID")

PCTFREE 10 INITRANS 2 MAXTRANS 255

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS

2147483645

PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1

BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT) TABLESPACE "TBS\_APP" PARALLEL 1 ;

ALTER INDEX "OE"."I\_ORDER\_ITEMS" NOPARALLEL;

-- new object type path: SCHEMA\_EXPORT/TABLE/CONSTRAINT/CONSTRAINT ALTER TABLE "OE"."ORDERS" ADD PRIMARY KEY ("ORDER\_ID")

USING INDEX PCTFREE 10 INITRANS 2 MAXTRANS 255

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS

2147483645

PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1

BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT) TABLESPACE "TBS\_APP" ENABLE;

-- new object type path: SCHEMA\_EXPORT/TABLE/INDEX/STATISTICS/INDEX\_STATISTICS

-- new object type path: SCHEMA\_EXPORT/TABLE/STATISTICS/TABLE\_STATISTICS

-- new object type path: SCHEMA\_EXPORT/STATISTICS/MARKER

-- fixup virtual columns... done fixup virtual columns

$

Import the OE Schema into ORCLPDB2 by Using Data Pump Import

Start SQL\*Plus and connect to ORCLPDB2 as the SYSTEM user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

In case the OETEST schema already exists in ORCLPDB2, execute the DROP USER

command to drop the OETEST user.

Exit SQL\*Plus.

Use Data Pump to import the OE schema. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value. Use the REMAP\_SCHEMA parameter to import the entire OE schema into a new OETEST schema in ORCLPDB2. You will get an error message stating that the directory name for DP\_FOR\_OE is invalid.

**Question:** Why did you receive an error message that the directory DP\_FOR\_OE does not exist when you created that directory in a previous step?

**Answer:** You created the directory in ORCLPDB1, not in ORCLPDB2.

Connect to ORCLPDB2 as the SYSTEM user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Create the DP\_FOR\_OE directory in ORCLPDB2.

Exit SQL\*Plus.

Retry the import operation. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

$ impdp system/*password*@orclpdb2 REMAP\_SCHEMA=oe:oetest DIRECTORY=dp\_for\_oe DUMPFILE=expoe.dmp

Import: Release 19.0.0.0.0 - Production on Thu Oct 22 01:21:44 2020

Version 19.3.0.0.0

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Connected to: Oracle Database 19c Enterprise Edition Release

19.0.0.0.0 - Production

Master table "SYSTEM"."SYS\_IMPORT\_FULL\_01" successfully loaded/unloaded

Starting "SYSTEM"."SYS\_IMPORT\_FULL\_01": system/\*\*\*\*\*\*\*\*@orclpdb2 REMAP\_SCHEMA=oe:oetest DIRECTORY=dp\_for\_oe DUMPFILE=expoe.dmp

Processing object type SCHEMA\_EXPORT/USER Processing object type SCHEMA\_EXPORT/SYSTEM\_GRANT Processing object type SCHEMA\_EXPORT/ROLE\_GRANT Processing object type SCHEMA\_EXPORT/DEFAULT\_ROLE

Processing object type SCHEMA\_EXPORT/PRE\_SCHEMA/PROCACT\_SCHEMA Processing object type SCHEMA\_EXPORT/SEQUENCE/SEQUENCE Processing object type SCHEMA\_EXPORT/TABLE/TABLE

ORA-39083: Object type TABLE:"OETEST"."ORDER\_ITEMS" failed to create with error:

ORA-00959: tablespace 'TBS\_APP2' does not exist

Failing sql is:

CREATE TABLE "OETEST"."ORDER\_ITEMS" ("ORDER\_ID" NUMBER(12,0), "LINE\_ITEM\_ID" NUMBER(3,0), "PRODUCT\_ID" NUMBER(6,0), "UNIT\_PRICE" NUMBER(8,2), "QUANTITY" NUMBER(8,0)) SEGMENT CREATION IMMEDIATE PCTFREE 10 PCTUSED 40 INITRANS 1 MAXTRANS 255 NOCOMPRESS LOGGING

STORAGE(INITIAL 65536 NEXT 1048576 MINEXTENTS 1 MAXEXTENTS

2147483645 PCTINCREASE 0 FREELISTS 1 FREELIST GROUPS 1 BUFFER\_POOL DEFAULT FLASH\_CACHE DEFAULT CELL\_FLASH\_CACHE DEFAULT) TABLESPACE "TBS\_APP2"

Processing object type SCHEMA\_EXPORT/TABLE/TABLE\_DATA

. . imported "OETEST"."ORDERS" 12.73 KB

105 rows

Processing object type SCHEMA\_EXPORT/TABLE/INDEX/INDEX

ORA-39112: Dependent object type INDEX:"OETEST"."I\_ORDER\_ITEMS" skipped, base object type TABLE:"OETEST"."ORDER\_ITEMS" creation failed

Processing object type SCHEMA\_EXPORT/TABLE/CONSTRAINT/CONSTRAINT

Processing object type SCHEMA\_EXPORT/TABLE/INDEX/STATISTICS/INDEX\_STATISTICS

Processing object type SCHEMA\_EXPORT/TABLE/STATISTICS/TABLE\_STATISTICS

Processing object type SCHEMA\_EXPORT/STATISTICS/MARKER

Job "SYSTEM"."SYS\_IMPORT\_FULL\_01" completed with 2 error(s) at Thu Oct 22 01:22:12 2020 elapsed 0 00:00:27

$

**Question:** Did the import complete successfully?

**Answer:** Not completely. Data Pump imported only the objects that it could process without any error.

**Question:** Which objects were not imported?

**Answer:** Data Pump could not import the ORDER\_ITEMS table because this table requires the TBS\_APP2 tablespace, which does not exist in ORCLPDB2. The dependent objects of this table, such as an index could not be imported.

Create the TBS\_APP2 tablespace in ORCLPDB2.

Start SQL\*Plus and connect to ORCLPDB2 as the SYSTEM user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Issue the CREATE TABLESPACE command to create the TBS\_APP2 tablespace in

ORCLPDB2.

Exit SQL\*Plus.

Retry the import operation. Refer to “Course Practice Environment: Security Credentials” for the

***password*** value.

$ impdp system/*password*@orclpdb2 remap\_schema=oe:oetest directory=dp\_for\_oe dumpfile=expoe.dmp

…

Connected to: Oracle Database 19c Enterprise Edition Release

19.0.0.0.0 - Production

Master table "SYSTEM"."SYS\_IMPORT\_FULL\_01" successfully loaded/unloaded

Starting "SYSTEM"."SYS\_IMPORT\_FULL\_01": system/\*\*\*\*\*\*\*\*@orclpdb2 REMAP\_SCHEMA=oe:oetest DIRECTORY=dp\_for\_oe DUMPFILE=expoe.dmp

Processing object type SCHEMA\_EXPORT/USER

ORA-31684: Object type USER:"OETEST" already exists

Processing object type SCHEMA\_EXPORT/SYSTEM\_GRANT Processing object type SCHEMA\_EXPORT/ROLE\_GRANT Processing object type SCHEMA\_EXPORT/DEFAULT\_ROLE

Processing object type SCHEMA\_EXPORT/PRE\_SCHEMA/PROCACT\_SCHEMA Processing object type SCHEMA\_EXPORT/SEQUENCE/SEQUENCE

ORA-31684: Object type SEQUENCE:"OETEST"."ORDERS\_SEQ" already

exists

Processing object type SCHEMA\_EXPORT/TABLE/TABLE

ORA-39151: Table "OETEST"."ORDERS" exists. All dependent metadata and data will be skipped due to table\_exists\_action of skip

Processing object type SCHEMA\_EXPORT/TABLE/TABLE\_DATA

. . imported "OETEST"."ORDER\_ITEMS" 21.01 KB

665 rows

**Question:** Are the errors true errors?

**Answer:** The errors are normal errors stating that objects exist. They were created during the previous import operation.

Verify the OETEST Schema in ORCLPDB2

Verify that the new OETEST schema exists in ORCLPDB2.

Start SQL\*Plus and connect to ORCLPDB2 as the OETEST user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

View the list of tables to which the OETEST user has access.

Query the number of rows in the ORDER\_ITEMS table. The results show that there are 665 rows.

List the indexes to which the OETEST user has access.

List the sequences to which the OETEST user has access.

Exit SQL\*Plus.

**Question:** How could you have imported the OE schema from ORCLPDB1 to ORCLPDB2 in one single operation?

**Answer:** The data could be imported from ORCLPDB1 by using a valid database link and written directly back to the connected ORCLPDB2. The Data Pump import operation uses the NETWORK\_LINK parameter to define the database link used to access the database from which to import the data.

Import the OE Schema into ORCLPDB2 via a Database Link

Start SQL\*Plus and connect to ORCLPDB2 as the SYSTEM user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Create a database link in the destination PDB (ORCLPDB2) that will connect to the source PDB (ORCLPDB1). Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Drop the target user created in the previous import operation.

Exit SQL\*Plus.

Invoke Data Pump Import and use the NETWORK\_LINK parameter to initiate an import via a database link. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

Verify that the OE schema was imported as OETEST into ORCLPDB2.

Start SQL\*Plus and connect to ORCLPDB2 as the OETEST user. Refer to “Course Practice Environment: Security Credentials” for the ***password*** value.

View the list of tables to which the OETEST user has access.

Query the number of rows in the ORDER\_ITEMS table. The table has 665 rows.

Exit SQL\*Plus.

**Question:** What are the advantages and drawbacks of this type of Data Pump import?

**Answer:** There are no dump files involved. If an import operation is performed over an unencrypted network link, then all data is imported as clear text even if it is encrypted in the database.

Practice 25-2: Transporting a Tablespace

Overview

In this practice, you will transfer a tablespace with all the steps that it would take to transfer it across different platforms (although in your training environment you are using only one host on one platform).

Assumptions

You have a terminal window open in which you are logged in as the oracle OS user. The practice steps indicate when to point to pluggable database orclpdb1 or orclpdb2.

Tasks

Prepare for this practice by executing the Trans\_Tblspc.sh script from the

$HOME/LABS/DBMod\_LoadTrans directory. This script:

Creates a new tablespace and user

As the new user, creates a table and populates it

Saves its output in the /tmp/setup.log file

Start a SQL\*Plus session and verify the prerequisites for transporting a tablespace across platforms.

Log in as the SYS user and verify that the source database is in read/write mode.

For performing cross-platform tablespace transport, you must know the exact name of the destination platform to which you are transporting data. Query V$TRANSPORTABLE\_PLATFORM to view the Linux-based platforms by using the query shown in the code box. In the course practice environment, the Linux x86 64-bit platform is used.

Set orclpdb1 as the current container and make the BARTBS tablespace read only. This is required for the export of the tablespace metadata. Then exit SQL\*Plus.

In the same window, start an RMAN session and connect to your orcl source database as the target instance. Refer to the “Course Practice Environment: Security Credentials” document for the password.

Back up the source tablespace by using the BACKUP command with the TO PLATFORM clause. Use the DATAPUMP clause to indicate that an export dump file for the tablespaces must be created for the tablespace metadata.

RMAN> backup to platform 'Linux x86 64-bit' format '/u01/app/backup/test.bck' datapump format '/u01/app/backup/test.dmp' tablespace bartbs;

Starting backup at 22-OCT-20

using target database control file instead of recovery catalog allocated channel: ORA\_DISK\_1

channel ORA\_DISK\_1: SID=276 device type=DISK Running TRANSPORT\_SET\_CHECK on specified tablespaces TRANSPORT\_SET\_CHECK completed successfully

Performing export of metadata for specified tablespaces...

EXPDP> Starting "SYS"."TRANSPORT\_EXP\_ORCLCDB\_eivf":

EXPDP> Processing object type TRANSPORTABLE\_EXPORT/STATISTICS/TABLE\_STATISTICS

EXPDP> Processing object type TRANSPORTABLE\_EXPORT/STATISTICS/MARKER

EXPDP> Processing object type TRANSPORTABLE\_EXPORT/PLUGTS\_BLK

EXPDP> Processing object type TRANSPORTABLE\_EXPORT/POST\_INSTANCE/PLUGTS\_BLK

EXPDP> Processing object type TRANSPORTABLE\_EXPORT/TABLE

EXPDP> Master table "SYS"."TRANSPORT\_EXP\_ORCLCDB\_eivf" successfully loaded/unloaded

EXPDP>

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EXPDP> Dump file set for SYS.TRANSPORT\_EXP\_ORCLCDB\_eivf is: EXPDP>

/u01/app/oracle/product/19.3.0/dbhome\_1/dbs/backup\_tts\_ORCLCDB\_9661 6.dmp

EXPDP>

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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EXPDP> Datafiles required for transportable tablespace BARTBS:

EXPDP> /u01/app/backup/ORCLCDB/orclpdb1/bartbs.dbf

EXPDP> Job "SYS"."TRANSPORT\_EXP\_ORCLCDB\_eivf" successfully completed at Thu Oct 22 02:07:26 2020 elapsed 0 00:00:35

Export completed

channel ORA\_DISK\_1: starting full datafile backup set

channel ORA\_DISK\_1: specifying datafile(s) in backup set

input datafile file number=00067 name=/u01/app/backup/ORCLCDB/orclpdb1/bartbs.dbf

channel ORA\_DISK\_1: starting piece 1 at 22-OCT-20 channel ORA\_DISK\_1: finished piece 1 at 22-OCT-20

piece handle=/u01/app/backup/test.bck tag=TAG20201022T020642 comment=NONE

channel ORA\_DISK\_1: backup set complete, elapsed time: 00:00:01 channel ORA\_DISK\_1: starting full datafile backup set

input Data Pump dump file=/u01/app/oracle/product/19.3.0/dbhome\_1/dbs/backup\_tts\_ORCLCDB

\_96616.dmp

channel ORA\_DISK\_1: starting piece 1 at 22-OCT-20 channel ORA\_DISK\_1: finished piece 1 at 22-OCT-20

piece handle=/u01/app/backup/test.dmp tag=TAG20201022T020642 comment=NONE

channel ORA\_DISK\_1: backup set complete, elapsed time: 00:00:01 Finished backup at 22-OCT-20

RMAN>

Enable read/write operations on the BARTBS tablespace. Then exit RMAN.

**Note:** Normally, after you disconnect from the source database, you move the backup sets and the Data Pump export dump file to the destination host by using operating system utilities. *In this training example, you do not need to do it because you only have one host available*.

Set your environment variables to point to the orclcdb database instance. Then as the

SYS user, connect to the database by using SQL\*Plus.

Create the BAR user in orclpdb2 and grant the CREATE SESSION privilege to BAR. Exit from SQL\*Plus. Replace ***password*** with the password specified for this step in the “Course Practice Environment: Security Credentials” document.

In RMAN connect to orclpdb2. Use the RESTORE command with the FOREIGN TABLESPACE clause. The FORMAT clause specifies the file destination. Use the DUMP FILE FROM BACKUPSET clause to restore the metadata from the dump file, which is required to plug the tablespace into the destination database. Refer to the “Course Practice Environment: Security Credentials” document for the ***password***.

connected to target database: ORCLCDB:ORCLPDB2 (DBID=1621666632)

RMAN> restore foreign tablespace bartbs FORMAT '/u01/app/backup/ORCLCDB/orclpdb2/bartbs.dbf' FROM BACKUPSET '/u01/app/backup/test.bck' DUMP FILE FROM BACKUPSET '/u01/app/backup/test.dmp';

Starting restore at 22-OCT-20

using target database control file instead of recovery catalog allocated channel: ORA\_DISK\_1

channel ORA\_DISK\_1: SID=280 device type=DISK

channel ORA\_DISK\_1: starting datafile backup set restore

channel ORA\_DISK\_1: specifying datafile(s) to restore from backup set

channel ORA\_DISK\_1: restoring all files in foreign tablespace BARTBS

channel ORA\_DISK\_1: reading from backup piece

/u01/app/backup/test.bck

channel ORA\_DISK\_1: restoring foreign file 67 to

/u01/app/backup/ORCLCDB/orclpdb2/bartbs.dbf

channel ORA\_DISK\_1: foreign piece handle=/u01/app/backup/test.bck channel ORA\_DISK\_1: restored backup piece 1

channel ORA\_DISK\_1: restore complete, elapsed time: 00:00:02 channel ORA\_DISK\_1: starting datafile backup set restore

channel ORA\_DISK\_1: specifying datafile(s) to restore from backup set

channel ORA\_DISK\_1: restoring Data Pump dump file to

/u01/app/oracle/product/19.3.0/dbhome\_1/dbs/backup\_tts\_ORCLCDB\_3806 0.dmp

channel ORA\_DISK\_1: reading from backup piece

/u01/app/backup/test.dmp

channel ORA\_DISK\_1: foreign piece handle=/u01/app/backup/test.dmp channel ORA\_DISK\_1: restored backup piece 1

channel ORA\_DISK\_1: restore complete, elapsed time: 00:00:02

Performing import of metadata...

IMPDP> Master table "SYS"."TSPITR\_IMP\_ORCLCDB\_htlB" successfully loaded/unloaded

IMPDP> Starting "SYS"."TSPITR\_IMP\_ORCLCDB\_htlB":

IMPDP> Processing object type TRANSPORTABLE\_EXPORT/PLUGTS\_BLK

IMPDP> Processing object type TRANSPORTABLE\_EXPORT/TABLE IMPDP> Processing object type

TRANSPORTABLE\_EXPORT/STATISTICS/TABLE\_STATISTICS

IMPDP> Processing object type

Confirm that the BARTBS tablespace exists in your destination database. Then exit RMAN.

Clean up the practice environment by executing the Trans\_Tblspc\_cleanup.sh script. This script removes the original and the transported tablespace, as well as the backup and dump files. The script saves its output in the /tmp/cleanup.log file.

Exit all terminals.