

# Exportar e importar datos de Oracle

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## 1 Introducción

## 2 Exportar datos

- Se utiliza el comando `expdp`
  - Ayuda con `expdp help=yes`
  - Es necesario crear antes el `directory` de **Oracle**

```
Export: Release 12.1.0.2.0 - Production on Fri Dec 16 13:32:15 2016

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The Data Pump export utility provides a mechanism for transferring data objects
between Oracle databases. The utility is invoked with the following command:

    Example: expdp scott/tiger DIRECTORY=dmpdir DUMPFILE=scott.dmp

You can control how Export runs by entering the 'expdp' command followed
by various parameters. To specify parameters, you use keywords:

    Format:  expdp KEYWORD=value or KEYWORD=(value1,value2,...,valueN)
    Example: expdp scott/tiger DUMPFILE=scott.dmp DIRECTORY=dmpdir SCHEMAS=scott
              or TABLES=(T1:P1,T1:P2), if T1 is partitioned table

USERID must be the first parameter on the command line.
```

---

The available keywords and their descriptions follow. Default values are listed within square brackets.

#### ABORT\_STEP

Stop the job after it is initialized or at the indicated object.

Valid values are -1 or N where N is zero or greater.

N corresponds to the object's process\_order\_number\_in\_the\_master\_table.

#### ACCESS\_METHOD

Instructs Export to use a particular method to unload data.

Valid keyword values are: [AUTOMATIC], DIRECT\_PATH and EXTERNAL\_TABLE.

#### ATTACH

Attach to an existing job.

For example, ATTACH=job\_name.

#### CLUSTER

Utilize cluster resources and distribute workers across the Oracle RAC [YES].

#### COMPRESSION

Reduce the size of a dump file.

Valid keyword values are: ALL, DATA\_ONLY, [METADATA\_ONLY] and NONE.

#### COMPRESSION\_ALGORITHM

Specify the compression algorithm that should be used.

Valid keyword values are: [BASIC], LOW, MEDIUM and HIGH.

#### CONTENT

Specifies data to unload.

Valid keyword values are: [ALL], DATA\_ONLY and METADATA\_ONLY.

#### DATA\_OPTIONS

Data layer option flags.

Valid keyword values are: XML\_CLOBS.

#### DIRECTORY

Directory object to be used for dump and log files.

#### DUMPFIL

Specify list of destination dump file names [expdat.dmp].

For example, DUMPFIL=scott1.dmp, scott2.dmp, dmpdir: scott3.dmp.

#### ENCRYPTION

Encrypt part or all of a dump file.

Valid keyword values are: ALL, DATA\_ONLY, ENCRYPTED\_COLUMNS\_ONLY, METADATA\_ONLY and NONE.

---

#### ENCRYPTION\_ALGORITHM

Specify how encryption should be done.

Valid keyword values are: [ AES128 ], AES192 and AES256.

#### ENCRYPTION\_MODE

Method of generating encryption key.

Valid keyword values are: DUAL, PASSWORD and [TRANSPARENT].

#### ENCRYPTION\_PASSWORD

Password key for creating encrypted data within a dump file.

#### ENCRYPTION\_PWD\_PROMPT

Specifies whether to prompt for the encryption password [NO].

Terminal echo will be suppressed while standard input is read.

#### ESTIMATE

Calculate job estimates.

Valid keyword values are: [BLOCKS] and STATISTICS.

#### ESTIMATE\_ONLY

Calculate job estimates without performing the export [NO].

#### EXCLUDE

Exclude specific object types.

For example, EXCLUDE=SCHEMA:"= 'HR' ".

#### FILESIZE

Specify the size of each dump file in units of bytes.

#### FLASHBACK\_SCN

SCN used to reset session snapshot.

#### FLASHBACK\_TIME

Time used to find the closest corresponding SCN value.

#### FULL

Export entire database [NO].

#### HELP

Display Help messages [NO].

#### INCLUDE

Include specific object types.

For example, INCLUDE=TABLE\_DATA.

#### JOB\_NAME

Name of export job to create.

---

#### KEEP\_MASTER

Retain the master table after an export job that completes successfully [NO].

#### LOGFILE

Specify log file name [export.log].

#### LOGTIME

Specifies that messages displayed during export operations be timestamped.  
Valid keyword values are: ALL, [NONE], LOGFILE and STATUS.

#### METRICS

Report additional job information to the export log file [NO].

#### NETWORK\_LINK

Name of remote database link to the source system.

#### NOLOGFILE

Do not write log file [NO].

#### PARALLEL

Change the number of active workers for current job.

#### PARFILE

Specify parameter file name.

#### QUERY

Predicate clause used to export a subset of a table.  
For example, QUERY=employees:"WHERE department\_id > 10".

#### REMAP\_DATA

Specify a data conversion function.  
For example, REMAP\_DATA=EMP.EMPNO:REMAPPKG.EMPNO.

#### REUSE\_DUMPFILES

Overwrite destination dump file if it exists [NO].

#### SAMPLE

Percentage of data to be exported.

#### SCHEMAS

List of schemas to export [login\_schema].

#### SERVICE\_NAME

Name of an active Service and associated resource group to constrain Oracle RAC resources.

#### SOURCE\_EDITION

Edition to be used for extracting metadata.

---

## STATUS

Frequency (secs) job status is to be monitored where the default [0] will show new status when available.

## TABLES

Identifies a list of tables to export.

For example, TABLES=HR.EMPLOYEES,SH.SALES:SALES\_1995.

## TABLESPACES

Identifies a list of tablespaces to export.

## TRANSPORTABLE

Specify whether transportable method can be used.

Valid keyword values are: ALWAYS and [NEVER].

## TRANSPORT\_FULL\_CHECK

Verify storage segments of all tables [NO].

## TRANSPORT\_TABLESPACES

List of tablespaces from which metadata will be unloaded.

## VERSION

Version of objects to export.

Valid keyword values are: [COMPATIBLE], LATEST or any valid database version.

## VIEWS\_AS\_TABLES

Identifies one or more views to be exported as tables.

For example, VIEWS\_AS\_TABLES=HR.EMP\_DETAILS\_VIEW.

---

The following commands are valid while in interactive mode.

Note: abbreviations are allowed.

## ADD\_FILE

Add dumpfile to dumpfile set.

## CONTINUE\_CLIENT

Return to logging mode. Job will be restarted if idle.

## EXIT\_CLIENT

Quit client session and leave job running.

## FILESIZE

Default filesize (bytes) for subsequent ADD\_FILE commands.

## HELP

Summarize interactive commands.

---

**KILL\_JOB**  
Detach\_and\_delete\_job.

**PARALLEL**  
Change\_the\_number\_of\_active\_workers\_for\_current\_job.

**REUSE\_DUMPFILES**  
Overwrite\_destination\_dump\_file\_if\_it\_exists\_[NO].

**START\_JOB**  
Start\_or\_resume\_current\_job.  
Valid\_keyword\_values\_are: \_SKIP\_CURRENT.

**STATUS**  
Frequency\_(secs)\_job\_status\_is\_to\_be\_monitored\_where  
the\_default\_[0]\_will\_show\_new\_status\_when\_available.

**STOP\_JOB**  
Orderly\_shutdown\_of\_job\_execution\_and\_exits\_the\_client.  
Valid\_keyword\_values\_are: \_IMMEDIATE.

## 2.1 Ejemplo de exportación

```
[alumno@centos-asgbd ~]$ expdp alumno/alumno directory=mi_directorio_de_backup schemas=alumno
Export: Release 12.1.0.2.0 - Production on Fri Dec 16 13:07:26 2016

Copyright (c) 1982, 2015, Oracle and/or its affiliates. All rights reserved.

Connected to: Oracle Database 12c Standard Edition Release 12.1.0.2.0 - 64bit Production
Starting "ALUMNO"."SYS_EXPORT_SCHEMA_01": alumno/***** directory=mi_directorio_de_backup
Estimate in progress using BLOCKS method...
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
Total estimation using BLOCKS method: 192 KB
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROACT_SCHEMA
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/GRANT/OWNER_GRANT/OBJECT_GRANT
Processing object type SCHEMA_EXPORT/TABLE/COMMENT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/STATISTICS/TABLE_STATISTICS
Processing object type SCHEMA_EXPORT/STATISTICS/MARKER
. . exported "ALUMNO"."MATRICULAS"                6.523 KB          44 rows
. . exported "ALUMNO"."MULTAS"                    8.195 KB          35 rows
. . exported "ALUMNO"."PERSONAS"                   6.875 KB          47 rows
```

---

```
Master table "ALUMNO"."SYS_EXPORT_SCHEMA_01" successfully loaded/unloaded
```

```
*****
```

```
Dump file set for ALUMNO.SYS_EXPORT_SCHEMA_01 is:
```

```
  /home/alumno/backups/alumno.dmp
```

```
Job "ALUMNO"."SYS_EXPORT_SCHEMA_01" successfully completed at Fri Dec 16 13:08:00 2016 elapsed time 00:01:00
```

## 2.2 Definir un directorio

```
grant create any directory to myschema;  
create directory mi_directorio_de_backup as '/home/alumno/backups';
```

## 3 Importar datos

- Se utiliza el comando `impdp`
  - Ayuda con `impdp help=yes`

```
Import: Release 12.1.0.2.0 – Production on Fri Dec 16 13:31:18 2016
```

```
Copyright (c) 1982, 2015, Oracle and/or its affiliates. All rights reserved.
```

The Data Pump Import utility provides a mechanism **for** transferring data objects between Oracle databases. The utility is invoked with the following command:

```
Example: impdp scott/tiger DIRECTORY=dmpdir DUMPFILE=scott.dmp
```

You can control how Import runs by entering the 'impdp' command followed by various parameters. To specify parameters, you use keywords:

```
Format: impdp KEYWORD=value or KEYWORD=(value1,value2,...,valueN)
```

```
Example: impdp scott/tiger DIRECTORY=dmpdir DUMPFILE=scott.dmp
```

USERID must be the first parameter on the command line.

---

The available keywords and their descriptions follow. Default values are listed within square brackets.

### ABORT\_STEP

Stop the job after it is initialized or at the indicated object.

Valid values are -1 or N where N is zero or greater.

N corresponds to the object's `s_process_order_number_in_the_master_table`.

### ACCESS\_METHOD

---

Instructs `Import` to use a particular method to load data.  
Valid keyword values are: `[AUTOMATIC]`, `CONVENTIONAL`, `DIRECT_PATH`  
and `EXTERNAL_TABLE`.

#### ATTACH

Attach to an existing job.  
For example, `ATTACH=job_name`.

#### CLUSTER

Utilize cluster resources and distribute workers across the Oracle RAC `[YES]`.

#### CONTENT

Specifies data to load.  
Valid keywords are: `[ALL]`, `DATA_ONLY` and `METADATA_ONLY`.

#### DATA\_OPTIONS

Data layer option flags.  
Valid keywords are: `DISABLE_APPEND_HINT` and `SKIP_CONSTRAINT_ERRORS`.

#### DIRECTORY

Directory object to be used for dump, log and SQL files.

#### DUMPFIL

List of dump files to import from `[expdat.dmp]`.  
For example, `DUMPFIL=scott1.dmp,scott2.dmp,dmpdir:scott3.dmp`.

#### ENCRYPTION\_PASSWORD

Password key for accessing encrypted data within a dump file.  
Not valid for network import jobs.

#### ENCRYPTION\_PWD\_PROMPT

Specifies whether to prompt for the encryption password `[NO]`.  
Terminal echo will be suppressed while standard input is read.

#### ESTIMATE

Calculate network job estimates.  
Valid keywords are: `[BLOCKS]` and `STATISTICS`.

#### EXCLUDE

Exclude specific object types.  
For example, `EXCLUDE=SCHEMA:"='HR' "`.

#### FLASHBACK\_SCN

SCN used to reset session snapshot.

#### FLASHBACK\_TIME

Time used to find the closest corresponding SCN value.



---

#### FULL

Import everything from source [YES].

#### HELP

Display help messages [NO].

#### INCLUDE

Include specific object types.  
For example, INCLUDE=TABLE\_DATA.

#### JOB\_NAME

Name of import job to create.

#### KEEP\_MASTER

Retain the master table after an import job that completes successfully [NO].

#### LOGFILE

Log file name [import.log].

#### LOGTIME

Specifies that messages displayed during import operations be timestamped.  
Valid keyword values are: ALL, [NONE], LOGFILE and STATUS.

#### MASTER\_ONLY

Import just the master table and then stop the job [NO].

#### METRICS

Report additional job information to the import log file [NO].

#### NETWORK\_LINK

Name of remote database link to the source system.

#### NOLOGFILE

Do not write log file [NO].

#### PARALLEL

Change the number of active workers for current job.

#### PARFILE

Specify parameter file.

#### PARTITION\_OPTIONS

Specify how partitions should be transformed.  
Valid keywords are: DEPARTITION, MERGE and [NONE].

#### QUERY

Predicate clause used to import a subset of a table.  
For example, QUERY=employees:"WHERE department\_id > 10".

---

## REMAP\_DATA

Specify a data conversion function.

For example, `REMAP_DATA=EMP.EMPNO:REMAPPKG.EMPNO`.

## REMAP\_DATAFILE

Redefine data file references in all DDL statements.

## REMAP\_SCHEMA

Objects from one schema are loaded into another schema.

## REMAP\_TABLE

Table names are remapped to another table.

For example, `REMAP_TABLE=HR.EMPLOYEES:EMPS`.

## REMAP\_TABLESPACE

Tablespace objects are remapped to another tablespace.

## REUSE\_DATAFILES

Tablespace will be initialized if it already exists [NO].

## SCHEMAS

List of schemas to import.

## SERVICE\_NAME

Name of an active Service and associated resource group to constrain Oracle RAC resources.

## SKIP\_UNUSABLE\_INDEXES

Skip indexes that were set to the Index Unusable state.

## SOURCE\_EDITION

Edition to be used for extracting metadata.

## SQLFILE

Write all the SQL DDL to a specified file.

## STATUS

Frequency (secs) job status is to be monitored where the default [0] will show new status when available.

## STREAMS\_CONFIGURATION

Enable the loading of Streams metadata [YES].

## TABLE\_EXISTS\_ACTION

Action to take if imported object already exists.

Valid keywords are: `APPEND`, `REPLACE`, `[SKIP]` and `TRUNCATE`.

## TABLES

---

Identifies a list of tables to import.  
For example, `TABLES=HR.EMPLOYEES,SH.SALES:SALES_1995`.

#### TABLESPACES

Identifies a list of tablespaces to import.

#### TARGET\_EDITION

Edition to be used for loading metadata.

#### TRANSFORM

Metadata transform to apply to applicable objects.

Valid keywords are: `DISABLE_ARCHIVE_LOGGING`, `INMEMORY`, `INMEMORY_CLAUSE`, `LOB_STORAGE`, `OID`, `PCTSPACE`, `SEGMENT_ATTRIBUTES`, `STORAGE`, and `TABLE_COMPRESSION_CLAUSE`.

#### TRANSPORTABLE

Options for choosing transportable data movement.

Valid keywords are: `ALWAYS` and `[NEVER]`.

Only valid in `NETWORK_LINK` mode import operations.

#### TRANSPORT\_DATAFILES

List of data files to be imported by transportable mode.

#### TRANSPORT\_FULL\_CHECK

Verify storage segments of all tables `[NO]`.

Only valid in `NETWORK_LINK` mode import operations.

#### TRANSPORT\_TABLESPACES

List of tablespaces from which metadata will be loaded.

Only valid in `NETWORK_LINK` mode import operations.

#### VERSION

Version of objects to import.

Valid keywords are: `[COMPATIBLE]`, `LATEST`, or any valid database version.

Only valid for `NETWORK_LINK` and `SQLFILE`.

#### VIEWS\_AS\_TABLES

Identifies one or more views to be imported as tables.

For example, `VIEWS_AS_TABLES=HR.EMP_DETAILS_VIEW`.

Note that in network import mode, a table name may be appended to the view name.

---

The following commands are valid while in interactive mode.

Note: abbreviations are allowed.

#### CONTINUE\_CLIENT

---

Return\_to\_logging\_mode. \_Job\_will\_be\_restarted\_if\_idle.

#### EXIT\_CLIENT

Quit\_client\_session\_and\_leave\_job\_running.

#### HELP

Summarize\_interactive\_commands.

#### KILL\_JOB

Detach\_and\_delete\_job.

#### PARALLEL

Change\_the\_number\_of\_active\_workers\_for\_current\_job.

#### START\_JOB

Start\_or\_resume\_current\_job.

Valid\_keywords\_are: \_SKIP\_CURRENT.

#### STATUS

Frequency\_(secs)\_job\_status\_is\_to\_be\_monitored\_where  
the\_default\_[0]\_will\_show\_new\_status\_when\_available.

#### STOP\_JOB

Orderly\_shutdown\_of\_job\_execution\_and\_exits\_the\_client.

Valid\_keywords\_are: \_IMMEDIATE.

### 3.1 Importar un schema en otro schema

- Importar un fichero del usuario **profesor** en el usuario **alumno**

```
impdp system/alumno SCHEMAS=alumno remap_schema=alumno:profesor \
        directory=EXPORTDIR \
        dumpfile=profesor.dmp
```

```
[alumno@centos-asgbd backups]$ impdp system/alumno schemas=profesor remap_schema=profesor:profesor
Import: Release 12.1.0.2.0 -- Production on Fri Dec 16 13:23:38 2016

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Connected to: Oracle Database 12c Standard Edition Release 12.1.0.2.0 -- 64bit Production
Master table "SYSTEM"."SYS_IMPORT_SCHEMA_01" successfully loaded/unloaded
Starting "SYSTEM"."SYS_IMPORT_SCHEMA_01": system/***** schemas=profesor remap_schema=profesor
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROACT_SCHEMA
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
```

---

```

. . imported "ALUMNO"."MATRICULAS"          6.523 KB      44 rows
. . imported "ALUMNO"."MULTAS"              8.195 KB      35 rows
. . imported "ALUMNO"."PERSONAS"            6.875 KB      47 rows
Processing object type SCHEMA_EXPORT/TABLE/GRANT/OWNER_GRANT/OBJECT_GRANT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/STATISTICS/TABLE_STATISTICS
Processing object type SCHEMA_EXPORT/STATISTICS/MARKER
Job "SYSTEM"."SYS_IMPORT_SCHEMA_01" successfully completed at Fri Dec 16 13:23:58 2016 elapsed

```

## 4 Referencias

- Formatos:
  - [Transparencias](#)
  - [PDF](#)
- Creado con:
  - [Emacs](#)
  - [org-reveal](#)
  - [Latex](#)