# Data Manager: Export Selections

Choose from the following topics.

| Click on ... | to ... |
|---|---|
| Concept | learn about the export tool |
| Procedure 1 | follow instructions about exporting data from the database |
| Procedure 2: Advanced Option | follow instructions about entering advanced information for data exporting |
| Elements 1 | read a description of the first export screen elements |
| Elements 2: Advanced Option | read a description of the advanced export screen elements |

# Data Manager: Export Concept

The Export utility is used to extract object definitions and table data from an Oracle database and store them in an Oracle-binary format export file located on tape or disk. The three different modes for exporting data to an operating system file are:

- table mode,
- user mode, and
- full database mode.

**IMPORTANT NOTE:**

As a security precaution, the most recent version of the Oracle Export utility checks for either the EXP_FULL_DATABASE or the DBA role before allowing a user to perform an export. Since the INTERNAL user is not actually a user but rather a list of privileges, INTERNAL is no longer allowed to perform exports. Log in as a user with the EXP_FULL_DATABASE or DBA roles enabled (ie. system/manager, sys/change_on_install) before using the Data Manager Export tool.

## *Table Mode*

Exports only specified tables in specified users' schemas, rather than all tables. Users with either the DBA or the EXP_FULL_DATABASE roles enabled may export any table in the database, except those in the schema of SYS.

**Note:**

Objects owned by SYS are generated during database creation for internal and administrative use only. They cannot be exported.

## *User Mode*

Exports all objects in the schemas of a specified set of users. Users with either the DBA or the EXP_FULL_DATABASE roles enabled may export any user in the database, except the user SYS.

## *Full Database Mode*

Only users with the DBA or EXP_FULL_DATABASE roles enabled can export in this mode. All objects in the database are exported, except those in the schema of SYS (see above note). In addition to the default full database export, there are three additional types of full database export:

- Incremental,

- Cumulative, and
- Complete.

### *Incremental Exports*

An incremental export backs up only tables that have changed since the last incremental,cumulative, or complete export. An incremental export exports the table's definition and all its data, not just the changed rows. Incremental exports are typically performed more often than cumulative or complete exports.

### *Cumulative Exports*

A cumulative export backs up tables that have changed since the last cumulative or complete export. In essence, a cumulative export compresses a number of incremental exports into a single cumulative export file. It is not necessary to save incremental export files taken before a cumulative export, because the cumulative export file replaces them.

### *Complete Exports*

A complete export establishes a base for incremental and cumulative exports. It is equivalent to a full database export, except that it also updates the internal database tables that track incremental and cumulative exports.

**Note:**

You can do incremental, cumulative, and complete exports only in full database mode. For more information about exporting, see the *Oracle7 Server Utilities* guide.

## Data Manager: Export Screen Elements 1

The elements of the initial export screen are listed below, along with a description of their functions.

| Screen Element | Type | Description |
|---|---|---|
| Selection Method | Radio Buttons | Allow you to you to choose the method of selecting tables to be exported. "Select tables by name" and "select tables by user" generate lists of tables and users, respectively. "Full database", the default option, displays a message informing you that all tables will be exported. |
| Change Selection Method | Button | Updates the screen based on the selection method you have chosen. |
| Select tables by user / name | Check Boxes | Allow you to specify users or tables to be exported. |
| Objects to Export | Check Boxes | Allow you to select any combination of table elements to be exported: grants, indexes, rows, or constraints. |
| Export File | Text Field | Allows you to specify the pathname of the export file to be generated. |
| Export | Button | Exports the database or tables you have selected using the information you have |

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| | | provided. |
| Advanced Options | Button | Sends you to another screen for providing advanced information about the export function. |

## Data Manager: Export Procedure 1

Perform the following steps to successfully import data into the database.

**Note:**

The Data Manager: Import utility, for Web-related security purposes, is restricted to importing files from the **ORACLE_HOME/export** directory. For easiest use with of complimentary utility, you should export into this directory.

1. Under “Selection Method”, select
   - Select tables by name,
   - Select tables by user, or
   - Full database

then click on the “Select” button.

**Note:**

The default is full database.

**Result:**

The screen will reload, revealing tables listed by name or user, depending upon your selection. If you have chosen the “Full database” default, all tables have been selected.

2. From the “Objects to import” field,

| **select …** | **to import …** |
|---|---|
| Grants | all granted privileges and roles associated with the selected tables or database. |
| Indexes | all indexes associated with the selected tables or database. |
| Rows | all rows in the selected tables or database. |
| Constraints | all constraints which must be satisfied by the selected tables or database. |

You can select any combination of the above.

4. Enter the name of the file you would like to export in the "Export file" field.

The default export file is the **ORACLE_HOME/export/expdat.dmp** directory. If you choose a file name without an extension, Export will automatically assign the **.dmp** extension to your export file.

5. Is there any additional information you’d like to provide before importing the file?
   - If yes, click on the “Advanced Options” button.

**Result**

The “Advanced Options” screen will appear.

   - If no, click on the “Export” button.

**Note:**

With large exports, the log output can take a significant amount of time to return to the browser. If you don't want to wait for this output, simply click the browser's 'stop' button. The export operation will continue until it finishes, and your browser will be free to perform other tasks.

**Result**

An export file will be written to the specified path. When the operation completes, a log record of the export will appear in the browser window.

## Data Manager: Export Screen Elements 2: Advanced Options

The elements of the advanced option screen are listed below, along with a description of their functions.

| Screen Element | Type | Description |
|---|---|---|
| Record Length | Text Field | Allows you to specify the length of a record. This entry is limited to four digits. |
| Buffer Size | Text Field | Allows you to specify the size of the buffer. This entry is limited to four digits. |
| Generate Log File | Check Box and Text Field | Allow you to specify whether a log file should be generated, and to enter a pathname. |
| Export Read-consistent View of Data | Check Box | Allows you to ensure that any other updates to the database occurring during the export procedure are not included in the export. This option cannot be used with an incremental export. |
| Increment Type | Radio Buttons | Allow you to specify whether Oracle7 Workgroup Server should export all data which has changed since the last incremental, cumulative, or complete export. This option can only be selected in the full database mode. |
| Record Export Operation in Database | Check Box | Allows you to record the operation in the database, so that the database remembers the export operation. This is useful for incremental exports. |
| Statistics Type | Radio Buttons | Allow the future importer to perform analyses on the incoming data. “Estimate” and “compute” represent varying degrees of accuracy. |
| Merge Extents for Import | Check Box | Allows you to compress all of the data into one extent for the future import. |
| OK | Button | Saves information in memory, and sends you back to the original screen to execute the export function. |
| Reset | Button | Resets the fields to their original values. |

## Data Manager: Export Procedure 2: Advanced Export Options

Perform the following steps to successfully enter advanced information for data exporting.

1. Enter values for the following fields.
    - Record length
    - Buffer size
    - Generate log file

- Log file name

2. Activate check boxes and radio buttons as desired for the following options.
   - Generate log file
   - Export read-consistent view of data
   - Increment type
   - Record export operation in database
   - Statistics type
   - Merge extents for import
3. When you are satisfied with your selections, click on "OK". This will take you back to the main export screen, and your settings will be saved for the remainder of your export session. Otherwise, click on "Reset" to return to the default configuration. You will remain on the Advanced Options screen, but any changes made to the default Advanced Options will be reset to their original values.

## Data Manager: Import Selections

Choose from the following topics.

| Click on ... | to ... |
|---|---|
| Concept | learn about the import tool |
| Procedure 1 | follow instructions about importing data into the database |
| Procedure 2: Advanced Option | follow instructions about entering advanced information for data importing |
| Elements 1 | read a description of the first import screen elements |
| Elements 2: Advanced Option | read a description of the advanced import screen elements |

## Data Manager: Import Concept

The Import utility extracts data from an export file and transfers it to an Oracle database. The three different 'modes' for importing data to an operating system are:

- table mode,
- user mode, and
- full export file mode.

**IMPORTANT NOTE:**

For web-related security purposes, the Data Manager: Import utility restricts the user to importing from a single directory, the **ORACLE_HOME/export** directory. To import with this tool, the user must either export the original export file into this directory, or using UNIX commands or tools, move or link the desired export file into this directory.

If there are no files in the export directory when the Import utility is launched, the user will generate an error.

As a security precaution, the most recent version of the Oracle Import utility checks for either the EXP_FULL_DATABASE or the DBA role before allowing a user to perform an export. Since the INTERNAL user is not actually a user but rather a list of privileges, INTERNAL is no longer allowed to perform exports. Log in as a user with the EXP_FULL_DATABASE or DBA roles enabled (ie. system/manager, sys/change_on_install) before using the Data Manager Import tool.

### *Table Mode*

Imports only specified tables in specified users' schemas, rather than all tables. Users with either the DBA or the IMP_FULL_DATABASE roles enabled may import any table in the export file. Additionally, a privileged user may import specified tables from one user into the schema of any other user in the database.

### *User Mode*

Imports all objects in the schemas of a specified set of users. Users with either the DBA or the IMP_FULL_DATABASE roles enabled may import all objects of any user in the export file. Additionally, a privileged user may import all objects of one user into the schema of any other user in the database.

### *Incremental Imports*

Although an incremental export extracts only tables that have changed since the last incremental, cumulative, or complete export, an import from an incremental export file imports the table's definition and all its data, not just the changed rows.

### *Restore*

The RESTORE command imports all user database objects and data that have changed since the last export using export files in chronological order.

### *System*

The SYSTEM command imports the most recent version of system objects (except those owned by SYS) using the most recent incremental export file.  A SYSTEM import does not import user data or objects.

**Note:**

For more information about importing, see the *Oracle7 Server Utilities* guide.

## Data Manager: Import Screen Elements 1

The elements of the initial import screen are listed below, along with a description of their functions.

| Screen Element | Type | Description |
|---|---|---|
| Selection Method | Radio Buttons | Allow you to choose the method of selecting tables to be exported. "Select tables by name" and "select tables by user" generate lists of tables and users, respectively. On such lists, the user name is a drop down selection box of other database users into whose schemas you may import the selected objects. "Full export file", the default, displays a message informing you that all tables will be imported. |
| Change Selection Method | Button | Updates the screen based on the selection method you have chosen. |
| Select tables by user / name | Check Boxes | Allow you to specify users or tables to be |

| | | |
|---|---|---|
| | | exported. |
| Select tables by user / name | Drop Down Lists | Allow you to change the owner of the specified object on import. |
| Select tables by user / name | Reset Button | Resets the user names to their original export-file values. |
| Objects to Import | Check Boxes | Allow you to select any combination of table elements to be imported: grants, indexes, or rows. |
| Export File | Drop Down List | Displays a drop-down selection list of files in the **ORACLE_HOME/export** directory. If there are no files in this directory, you will be unable to use the Data Manger Import utility. |
| Import | Button | Imports the database or tables you have selected using the information you have provided. |
| Advanced Options | Button | Sends you to another screen for providing advanced information about the import function. |

## Data Manager: Import Procedure 1

Perform the following steps to successfully import data into the database.

1. Under “Selection Method”, select
   - Select tables by name,
   - Select tables by user, or
   - Full database
   - Full export file

then click on the “Change Selection Method” button.

**Note:**

The default is full export file.

**Result:**

If you have chosen either "Select tables by name" or "Select tables by user," the screen will list all of the tables or users in the export file. For each listing, the user name will be a part of a drop down selection box listing all current users in the database into whose schemas you may import. A "Reset" button will appear, enabling you to return the user names to their original values after changing them. If you have chosen the "Full export file" default, a list of users or tables will not appear as all tables will be selected.

2. From the “Objects to import” field,

| **select …** | **to import …** |
|---|---|
| Grants | all granted privileges and roles associated with the selected tables or database. |
| Indexes | all indexes associated with the selected tables or database. |
| Rows | all rows in the selected tables or database. |

You can select any combination of the above.

**Note:**

All the fields are selected by default.

3. Select the export file from which you want to impoort from the drop down selection list of files in the export directory.

**Note:**

If there are no files in the export directory, a message will inform you of this when the tool is started. If there are files but no valid export files in the export directory, a message will inform you of this as soon as you attempt to perform any operation on the file.

4. Is there any additional information you'd like to provide before importing the file?

- If yes, click on the "Advanced Options" button.

**Result**

The "Advanced Options" screen will appear.

- If no, click on the "Import" button.

**Result**

The selected objects will be imported into the database.

## Data Manager: Import Screen Elements 2: Advanced Options

The elements of the advanced option screen are listed below, along with a description of their functions.

| Screen Element | Type | Description |
|---|---|---|
| Record Length | Text Field | Allows you to specify the length of a record. This entry is limited to four digits. |
| Buffer Size | Text Field | Allows you to specify the size of the buffer. This entry is limited to four digits. |
| Generate Log File | Check Box and Text Field | Allow you to specify whether a log file should be generated, and to enter a pathname. |
| Increment Type | Radio Buttons | Allows you to specify whether Oracle7 Workgroup Server should import from incremental export files. This option can only be selected in the full export file mode. You can choose between "None", "System" , and "Restore". |
| Write Index-creation Commands to File | Check Box and Text Field | Allows you to save the index-creation SQL commands in a file. |
| Commit After Each Array | Check Box | Allows you to specify whether Oracle7 Workgroup Server should commit information to the database after each array. |
| Overwrite Existing Data Files | Check Box | Allows you to specify whether datafile names should be overwritten during importing. |
| OK | Button | Saves information in memory, and sends you back to the original screen to execute the import function.. |
| Reset | Button | Resets the fields to their original values. |

# Data Manager: Import Procedure 2: Advanced Options

Perform the following steps to successfully enter advanced information for data importing.

1. Enter values for the following fields.
    - Record length
    - Buffer size
    - Generate log file
    - Write index-creation commands to file
    - Log file name
2. Activate check boxes and radio buttons as desired for the following options.
    - Generate log file
    - Increment type (only one may be selected)
    - Write index-creation commands to file
    - Commit after each array
    - Overwrite existing datafiles
3. When you are satisfied with your selections, click on "OK." Otherwise, click on "Reset" to reset the fields to their default values.

### *Result*

Clicking on "OK" will save your new settings, then send you back to the initial "Import" screen.