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| [**PSOUG Home**](http://psoug.org/index.htm) | [**Code Snippets**](http://psoug.org/browse.htm) | [**Oracle Lookup**](http://psoug.org/definition.htm) | [**Oracle Reference**](http://psoug.org/reference/library.html) | [**Oracle Error Codes**](http://psoug.org/oraerror.htm) | [**Oracle Functions**](http://psoug.org/reference/builtin_functions.html) | [**PSOUG Forum**](http://psoug.org/forum/) |

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| |  |  |  | | --- | --- | --- | | http://psoug.org/image/top_lef.gif | http://psoug.org/image/top_mid.gif | http://psoug.org/image/top_rig.gif | | http://psoug.org/image/cen_lef.gif | [CODE](http://psoug.org/browse.htm) Oracle Code Library | http://psoug.org/image/cen_rig.gif | | http://psoug.org/image/bot_lef.gif | http://psoug.org/image/bot_mid.gif | http://psoug.org/image/bot_rig.gif | | |  |  |  | | --- | --- | --- | | http://psoug.org/image/top_lef.gif | http://psoug.org/image/top_mid.gif | http://psoug.org/image/top_rig.gif | | http://psoug.org/image/cen_lef.gif | [JOBS](http://psoug.org/jobs/) Find Or Post Oracle Jobs | http://psoug.org/image/cen_rig.gif | | http://psoug.org/image/bot_lef.gif | http://psoug.org/image/bot_mid.gif | http://psoug.org/image/bot_rig.gif | | |  |  |  | | --- | --- | --- | | http://psoug.org/image/top_lef.gif | http://psoug.org/image/top_mid.gif | http://psoug.org/image/top_rig.gif | | http://psoug.org/image/cen_lef.gif | [FORUM](http://psoug.org/forum/) Oracle Discussion & Chat | http://psoug.org/image/cen_rig.gif | | http://psoug.org/image/bot_lef.gif | http://psoug.org/image/bot_mid.gif | http://psoug.org/image/bot_rig.gif | |

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| http://psoug.org/image/spacer.gif   |  | | --- | |  | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**PSOUG Home**](http://psoug.org/index.htm) | [**Code Snippets**](http://psoug.org/browse.htm) | [**Oracle Reference**](http://psoug.org/reference/library.html) | [**Oracle Functions**](http://psoug.org/reference/builtin_functions.html) | [**PSOUG Forum**](http://psoug.org/forum/) | [**Oracle Blogs**](http://psoug.org/blogs/) | **[Bookmark and Share](http://www.addthis.com/bookmark.php?v=250&username=xa-4bb75fa83cf60231)** | | |  | | |  |  | | --- | --- | | **Search the Reference Library pages:** | Top of Form    Bottom of Form | |   http://psoug.org/image/spacer.gif   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | [[http://psoug.org/image/ormc2.gif](http://psoug-org.tradepub.com/?pt=adv&page=Oracle%20Corporation)Free Oracle Magazine Subscriptions and Oracle White Papers](http://psoug-org.tradepub.com/?pt=adv&page=Oracle%20Corporation) |   [http://cdn.fastclick.net/content/adv/cids/135/573135/media1174751.gif](http://media.fastclick.net/w/click.here?cid=573135&mid=1174751&m=3&sid=50979&c=0&tp=7&UD=WhIxNzc4MDI3Nzc0MDc5NjI0NzGIAd-ZR5ABz-0imAGjjgOgAQOoAQfwAQCyAg0xMDYuNzguNDcuMTk0&upsid=177802777407962471) | |  | | --- | | **Oracle External Tables** | | **Version 11.1** | |  | | |  |  | | --- | --- | | **Note:** If external tables are created with **NOLOG** then granting READ on the DIRECTORY object is sufficient. If an external table is created without the NOLOG syntax then both **READ** and **WRITE** must be granted to SELECT from it.  Prior to version 10g, external tables were **READ ONLY**. Insert, update, and delete **could not** be performed. Starting with version Oracle Database 10g, external tables [can be written to](http://docs.oracle.com/cd/B19306_01/server.102/b14215/et_concepts.htm) as well as read from. *Thanks to "Kathryn" for this update/correction.* | | |  | | | **Actions As SYS** | | | Related Catalog Objects | |  |  |  | | --- | --- | --- | | dba\_external\_tables | all\_external\_tables | user\_external\_tables | | | Related System Privileges | |  |  |  | | --- | --- | --- | | create table | create any table | drop any table | | |  | | | **Actions As SYS** | | | Create Directory and grant privileges | CREATE OR REPLACE DIRECTORY <name> AS <operating\_system\_path\_and\_directory>; | | conn / as sysdba  [CREATE](http://psoug.org/definition/CREATE.htm) OR [REPLACE](http://psoug.org/definition/REPLACE.htm) DIRECTORY ext [AS](http://psoug.org/definition/AS.htm) 'c:\external';  [GRANT](http://psoug.org/definition/GRANT.htm) READ ON DIRECTORY ext TO uwclass; [GRANT](http://psoug.org/definition/GRANT.htm) WRITE ON DIRECTORY ext TO uwclass; | |  | | | **External Table** | | | Create Text File Using a Text Editor | 7369,SMITH,CLERK,20 7499,ALLEN,SALESMAN,30 7521,WARD,SALESMAN,30 7566,JONES,MANAGER,20 7654,MARTIN,SALESMAN,30  Save external file as c:\external\demo1.dat  (if UNIX or LINUX use your home directory)  1111,MORGAN,DIRECTOR,10 2222,HARDIE,MANAGER,30 3333,HAVEMEYER,VP MKTG,10 4444,LOFSTROM,MANAGER,10 5555,ALLEN,SECURITY,30  Save external file as c:\external\demo2.dat  (if UNIX or LINUX use your home directory) | |  | | | **As End User** | | | Create Internal Representation of the External Table | CREATE TABLE <table\_name> ( <column\_definitions>)  ORGANIZATION EXTERNAL (TYPE oracle\_loader DEFAULT DIRECTORY <oracle\_directory\_object\_name> ACCESS PARAMETERS ( RECORDS DELIMITED BY newline BADFILE <file\_name> DISCARDFILE <file\_name> LOGFILE <file\_name> [READSIZE <bytes>] [SKIP <number\_of\_rows> FIELDS TERMINATED BY '<terminator>' REJECT ROWS WITH ALL NULL FIELDS MISSING FIELD VALUES ARE NULL (<column\_name\_list>))\ LOCATION ('<file\_name>')) [PARALLEL] REJECT LIMIT <UNLIMITED | integer>; | | conn uwclass/uwclass  [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab ( empno  CHAR(4), ename  CHAR(20), job    CHAR(20), deptno CHAR(2)) ORGANIZATION EXTERNAL (   TYPE oracle\_loader   DEFAULT DIRECTORY ext     ACCESS PARAMETERS (     RECORDS DELIMITED BY NEWLINE     BADFILE 'bad\_%a\_%p.bad'     LOGFILE 'log\_%a\_%p.log'     FIELDS TERMINATED BY ','     MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm)     REJECT ROWS WITH ALL NULL FIELDS     (empno, ename, job, deptno))     LOCATION ('demo1.dat')   ) PARALLEL REJECT LIMIT 0 NOMONITORING;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_tab;  [SELECT](http://psoug.org/definition/SELECT.htm) table\_name [FROM](http://psoug.org/definition/FROM.htm) user\_tables;  desc user\_external\_tables  col table\_name format a15 col type\_name format a15 col reject\_limit format a15  [SELECT](http://psoug.org/definition/SELECT.htm) table\_name, type\_name, default\_directory\_name, reject\_limit, access\_type [FROM](http://psoug.org/definition/FROM.htm) user\_external\_tables;  [DROP](http://psoug.org/definition/DROP.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab PURGE;  [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab ( empno CHAR(4), ename CHAR(20), job CHAR(20), deptno CHAR(2)) ORGANIZATION EXTERNAL (TYPE oracle\_loader DEFAULT DIRECTORY ext ACCESS PARAMETERS (FIELDS TERMINATED BY ',' MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm) (empno, ename, job, deptno)) LOCATION ('demo1.dat','demo2.dat')) PARALLEL REJECT LIMIT 0;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_tab; | | External Table For Writing and Reading | [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) <table\_name> ( <column\_name, column\_name, ...>) ORGANIZATION EXTERNAL (TYPE oracle\_datapump DEFAULT DIRECTORY <oracle\_directory\_object\_name> LOCATION ('<file\_name')) [PARALLEL] AS <SQL Statement>; | | [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_write ( tab\_name, tblspname, numblocks) ORGANIZATION EXTERNAL (TYPE oracle\_datapump DEFAULT DIRECTORY ext LOCATION ('table\_history.exp')) PARALLEL AS [SELECT](http://psoug.org/definition/SELECT.htm) table\_name, tablespace\_name, blocks [FROM](http://psoug.org/definition/FROM.htm) user\_tables;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_write;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_write [WHERE](http://psoug.org/definition/WHERE.htm) numblocks > 100;  [SELECT](http://psoug.org/definition/SELECT.htm) table\_name, type\_name, default\_directory\_name, reject\_limit, access\_type [FROM](http://psoug.org/definition/FROM.htm) user\_external\_tables;  -- open ext\_write\_####\_####.log files -- open c:\external able\_history.exp  [DROP](http://psoug.org/definition/DROP.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_write; | | Tab Delimited External Table | [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab ( empno CHAR(4), ename CHAR(20), job CHAR(20), deptno CHAR(2)) ORGANIZATION EXTERNAL (TYPE oracle\_loader DEFAULT DIRECTORY ext ACCESS PARAMETERS ( RECORDS DELIMITED BY NEWLINE FIELDS TERMINATED BY 0X'09' MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm) (empno, ename, job, deptno)) LOCATION ('demo1.dat')) PARALLEL REJECT LIMIT 0; | | External Table For Viewing Alert Logs  Thank you to Frank Beutelschiess, in Germany, for an improvement on my original demo.  Thank you Caleb Small, in Canada, for the view | conn / as sysdba  [CREATE](http://psoug.org/definition/CREATE.htm) OR [REPLACE](http://psoug.org/definition/REPLACE.htm) DIRECTORY bdump [AS](http://psoug.org/definition/AS.htm) 'c:\oracle\product\diag dbms\orabase\orabase race\';  [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) system.log\_table (TEXT [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(400)) ORGANIZATION EXTERNAL (  TYPE oracle\_loader  DEFAULT DIRECTORY bdump  ACCESS PARAMETERS (   RECORDS DELIMITED BY NEWLINE   NOBADFILE NODISCARDFILE NOLOGFILE   FIELDS TERMINATED BY '0x0A'   MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm))  LOCATION ('alert\_orabase.log')) REJECT LIMIT unlimited;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) system.log\_table;  [CREATE](http://psoug.org/definition/CREATE.htm) OR [REPLACE](http://psoug.org/definition/REPLACE.htm) VIEW last\_200\_alerts AS WITH alert\_log [AS](http://psoug.org/definition/AS.htm) (   [SELECT](http://psoug.org/definition/SELECT.htm) rownum as lineno, text [FROM](http://psoug.org/definition/FROM.htm) system.log\_table) [SELECT](http://psoug.org/definition/SELECT.htm) text [FROM](http://psoug.org/definition/FROM.htm) alert\_log [WHERE](http://psoug.org/definition/WHERE.htm) lineno > ([SELECT](http://psoug.org/definition/SELECT.htm) count(\*)-200 [FROM](http://psoug.org/definition/FROM.htm) alert\_log) [ORDER BY](http://psoug.org/definition/ORDER_BY.htm) lineno;  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) last\_200\_alerts; | | Skip First Record | -- create a file on the hard disk named cost.txt with the follow 4 lines:  YEAR PID CPU  GROSS REVENUE 2003 def 2.00 123.4567890 2004 ABC 1.00 39.7288841651344 2005 xyz 1.99 1107.5458517352   [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) skip\_tab ( fiscal\_year        [NUMBER](http://psoug.org/definition/NUMBER.htm)(4), prod\_no            [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), cost\_per\_unit      FLOAT(126), gross\_rev\_per\_unit FLOAT(126)) ORGANIZATION EXTERNAL ( [TYPE](http://psoug.org/definition/TYPE.htm) oracle\_loader DEFAULT DIRECTORY ext ACCESS PARAMETERS ( RECORDS DELIMITED BY NEWLINE SKIP 1 FIELDS TERMINATED BY ' ' MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm) (fiscal\_year INTEGER EXTERNAL (4), prod\_no CHAR(30), cost\_per\_unit FLOAT EXTERNAL, gross\_rev\_per\_unit FLOAT EXTERNAL)) LOCATION ('cost.txt'));  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) skip\_tab; | | Records delimited by RECORDS DELIMITED BY 0x'0A' demo submitted by Tom Burger of Exan Software | A comma delimited flat file is export from a UNIX database and transferred for loading into a Windows based Oracle database. The lines are terminated with 0x0A and not the 0x0A 0x0D pair for DOS/Windows. The fields are randomly double quoted, and some contain commas internal to the field's data like this:  100001,"7123 HIGHLAND DR","03/28/1965"," Mercer Island**,** WA 98040","Morgan**,** Dan A", "","","63034630752", 14,1,"F","T","06/28/2000","",0,"","01/01/1999","N", "01/01/1999","" 100020,"5432 SOUTH 28TH ST","01/01/1951"," Mercer Island**,** WA 98040", "Burger**,**Tom", "","2566400","ZPW345070938",64,1,"M","B","02/23/2000","",0,"", "12/31/1799","P","12/31/1979",""  The external file definition to load this data is:  [CREATE](http://psoug.org/definition/CREATE.htm) [TABLE](http://psoug.org/definition/TABLE.htm) some\_data ( ACCOUNT\_NUM    [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), ADDRESS        [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), BIRTH\_DATE     [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), CITY\_STATE\_ZIP [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(40), NAME           [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), EMPLOYER\_NAME  [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), GROUP\_NAME     [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), ID\_NO          [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(50), PLAN\_NO        [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(50), VAR\_REC        [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(50), SEX            [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(2), TYPE           [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), UPDATE\_DATE    [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), EXD\_ID         [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), PCP            [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), PCP\_EFFECT     [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), CANCEL\_DATE    [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), COV\_DEP        [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(30), EFFECT\_DATE    [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(10), ADDL\_INFO      [VARCHAR2](http://psoug.org/definition/VARCHAR2.htm)(50)) ORGANIZATION EXTERNAL (TYPE oracle\_loader DEFAULT DIRECTORY ext ACCESS PARAMETERS (RECORDS DELIMITED BY 0x'0A' FIELDS TERMINATED BY ',' OPTIONALLY ENCLOSED BY '"' MISSING FIELD [VALUES](http://psoug.org/definition/VALUES.htm) ARE [NULL](http://psoug.org/definition/NULL.htm)) LOCATION ('UNIX\_DATA.DAT')) REJECT LIMIT unlimited;  desc some\_data  set linesize 121 col account\_num format a10 col address format a20 col birth\_date format a20 col city\_state\_zip format a20 col name format a20  [SELECT](http://psoug.org/definition/SELECT.htm) account\_num, address, birth\_date, city\_state\_zip, name [FROM](http://psoug.org/definition/FROM.htm) some\_data;   This eliminates the loader error of seeing the file as one single record that exceeds the half MB limit and fields like "Doe,Jane R" are interpreted as a single field. This is from a real life situation I was working on today. All of the data in the example is, of course, altered to privacy. | |  | | | **Alter Table** | | | Changing the target file | [ALTER](http://psoug.org/definition/ALTER.htm) [TABLE](http://psoug.org/definition/TABLE.htm) <table\_name> LOCATION ('<file1>', '<file2>', ....); | | [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_tab;  [ALTER](http://psoug.org/definition/ALTER.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab LOCATION ('demo1.dat');  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_tab;  [ALTER](http://psoug.org/definition/ALTER.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab LOCATION ('demo1.dat', 'demo2.dat');  [SELECT](http://psoug.org/definition/SELECT.htm) \* [FROM](http://psoug.org/definition/FROM.htm) ext\_tab;  [ALTER](http://psoug.org/definition/ALTER.htm) [TABLE](http://psoug.org/definition/TABLE.htm) ext\_tab LOCATION ('demo2.dat'); | |  | | | **Create External Table DDL With SQL\*Loader** | | | Step 1 | copy sqlldr02.ctl and sqlldr02.dat to c: emp -- they can be found linked on the SQL\*Loader page | | Step 2 | -- open a terminal window and enter the following:  C:\Documents and Settings>sqlldr scott/tiger control=c: emp\sqlldr02 log=c: emp\ddl\_file.txt external\_table=generate\_only | | Step 3 | -- open the newly created file ddl\_file.txt and scroll down to  -- the create table statement | | |  | | |  | | --- | | **Related Topics** | | Data Pump | | [SQL\*Loader](http://psoug.org/reference/sqlloader.html) | | [Tables](http://psoug.org/reference/tables.html) | | |  | |  |  | | --- | |  | | [Home](http://psoug.org/)      :      [Code Library](http://psoug.org/browse.htm)      :      [Sponsors](http://psoug.org/sponsor.htm)      :      [Privacy](http://psoug.org/w3c/privacy.htm)      :      [Terms of Use](http://psoug.org/w3c/tos.htm)      :      [Contact Us](http://psoug.org/contact.htm) | [43 users online]    © 2010 psoug.org |  |  |  |  | | --- | --- | --- | |  |  |  | |





http://amch.questionmarket.com/adsc/d921388/100/1017295/adscout.php?ord=1428258902812