Running UTL_FILE on Windows NT (Doc ID 45172.1)

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APPLIES TO:

PL/SQL - Version 7.3.2.2 and later
Oracle Database - Enterprise Edition - Version 7.3.0.0 and later
Microsoft Windows (32-bit)
Microsoft Windows x64 (64-bit)
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PURPOSE

From release 7.3 file input/output capabilities were added to PL/SQL on the server. This is achieved through the supplied package UTL_FILE, generic documentation on this feature can be found in :

- PLSQL Packages and Type References
- Note 44307.1 Using the UTL_FILE package

The following text covers how to setup directories for access by the UTL_FILE package on Windows.

NOTE:

1) This article contains reference to the use of UTL_FILE_DIR parameter.

This parameter is no longer recommended from 9i database onwards.

2) This article provides the recommended way of accessing files using directory objects.

When directory objects are referred inside procedures , make sure they are referred in capital letters.

QUESTIONS AND ANSWERS

Directory Names

Prior to 9i , for UTL_FILE's procedures to access server directories the directories to be accessed must be specified in the init.ora file, for example :

UTL_FILE_DIR=E:\LOGDIR

Quotes and a trailing \ are not necessary.

From 9i onwards the recommended option is to use a directory object .

create or replace directory MY_DIR as 'E:\LOGDIR';

1) Long filenames or directory names with mixed case

For this to work the directory specified for use in the UTL_FILE procedures must exactly match (including case) that specified in UTL_FILE_DIR. Although the UTL_FILE_DIR init.ora parameter does not have to exactly match the actual directories case.

e.g. UTL_FILE_DIR=E:\LogDirectory

UTL_FILE.FOPEN('E:\LogDirectory','logfile.log','w');

From 9i ,while creating directory name , they can be created in any case.

For example , we can create a directory object as

```
create or replace directory MY_DIR as 'E:\LogDir';
or
create or replace directory MY_DIR as 'E:\LOGDIR';
or
create or replace directory MY_DIR as 'E:\logdir';
```

and all the above will work.

2) Directories with space characters

For this to work the directory must be delimited by double quotes in the init.ora parameter file.

e.g. UTL_FILE_DIR="E:\LOG DIR".

From 9i onwards ,there is no special treatment required for the directories with space. Since the directory object is create by referring to the physical directory within quotes,such problems are taken care of.

```
create or replace directory MY_DIR as 'E:\log dir';
```

3) Making multiple directories available

To specify multiple directories have a separate UTL_FILE_DIR line for each directory, but make sure these are on consecutive lines otherwise only the last directory will be accessible. Alternatively separate each directory with a space on a single UTL_FILE_DIR line.

From 9i onwards , you need to create one directory object for each directory that needs to be accessed. This holds good for sub-directories as well.

For example if you have directory E:\logdir for which there is a directory object MY_DIR , to access any sub-directory of this directory , a new directory object has to be created.

Directory Permissions

Directories on FAT partitions

FAT does not support file or directory permissions.

Directories on NTFS partitions

When an oracle instance is created the services that support it are setup to Log On As the SYSTEM (or operating system) account. For UTL_FILE's procedures to access directories that do not have access granted to everyone they must have "Change" privileges granted to the SYSTEM account. If the OracleServiceXXXX service has been altered to log on as another account, it is this account that must be given access to the directories.

Accessing Network Directories

Netware Networked Directories

For this to work ensure that the account that started the Oracle instance has a mapped network drive connected using a fully qualified username/password with the same drive letter and path as is specified by UTL_FILE_DIR.

<u>NT Networked Directories</u>

When an oracle instance is created the services that support it are setup to "Log On As" the SYSTEM (or operating system) account, this account has very few privileges and no access to NT Domains. To access another NT machine the OracleServiceXXXX must be setup to logon to the appropriate NT Domain as a user who has access to the required location for UTL_FILE.

To change the default logon for the Oracle services, go to:

-> Control Panel
-> Services
-> OracleServiceXXXX (where XXXX is the instance name)
-> Startup
-> Log On As

Choose the "This Account" radio button, then complete the appropriate domain login information.

Repeat this procedure for the TNS Listener:

-> Control Panel
-> Services
-> OracleXXXXTNSListener (where XXXX is the Oracle Home Name)
-> Startup
-> Log On As

If the listener is not configured to start as the same user as the Oracle Service user will fail to connect with "ORA-12500 TNS:listener failed to start a dedicated server process". Once the services have been setup as a user with the appropriate privileges the are two options for setting UTL_FILE_DIR:

a. Mapped Drive : To use a mapped drive, the user that the service starts as must have setup a drive to match UTL_FILE_DIR and be logged onto the server when UTL_FILE is in use. While using directory objects ,a directory object has to be created for the drive and he user has to be logged onto the server when UTL_FILE is in use.

b. Universal Naming Convention : UNC is preferable to Mapped Drives because it does not require anyone to be logged on and UTL_FILE_DIR should be set to a name in the form:

\\\<machine name>\<share name>\<path>

Or

"\\<machine name>\<share name>\<path>"

A directory object has to be created using UNC format to point to the shared directory:

```
create or replace directory NET_SHARE as '\\<machine name>\<share name>\<path>';
```

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