Relius Administration
Oracle 11.2.0.4 multi-user (networked database server)
installation instructions

May 19, 2014

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Attention Technology Consultants!

If you have never installed Relius Administration or are unfamiliar with the end-user specific
Relius implementation and environment, please contact Relius Technology at (800) 326-7235,
Option 3, before proceeding. Relius Technology can arrange a brief conference call to provide
important details regarding each user's unique operational environment and details regarding the
Relius installation and upgrade process. This will help ensure your deployment efforts are
successful and efficient. We can also schedule priority telephone support during or after
business hours to maximize the time you spend on any Relius project.   It is important to note
that failure to fully meet the prescribed hardware requirements, deployment methods, or closely
follow the installation documents and upgrade steps could result in installation problems,
unnecessary downtime, and possible end-user data loss.

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┌─────────────────────────────────────────────────────────────────────────┐
│  1      Overview                                                          │
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```

Please read the entire document before beginning. **This document covers the installation of networked Oracle 11g Database for Relius Administration 18.0 and higher.** If you are unclear about this installation, please contact Support at 1-800-326-7235, option 3. Instructions for other types of installations are also located on our web site.

┌───┐
│ **This installation will take a minimum of 45 minutes to over an hour. The** │
│ **import will take from 30 minutes to three hours or more, depending on the** │
│ **speed of your server and the size of your database. Although the process is** │
│ **lengthy, it is necessary to allow it to run to completion. Failure to finish the** │
│ **entire installation and import will result in corruption of your data. Please** │
│ **plan accordingly.** │
└───┘

1.1   Priority installation support (as well as weekend/after-hours/holiday weekend support) can be obtained through the SunGard Relius web site. Log on to the support web site (https://www.relius.net/support/Login.aspx), click the "Technology" link on the left side of the page, and then click "Request priority or after-hours (evening or weekend) telephone support." Direct link is here: http://www.relius.net/Support/RADRequestSupport.aspx?Support=Weekend.

1.2   This installation will only install to new, 64-bit editions of Windows Server 2008, Windows Server 2008 R2, and Windows Server 2012. **No upgrade path is supported.** Users must migrate their existing database servers exporting from the previous version of Oracle by export/copy/import.

1.3   "Multi-user" and "networked" databases are often used interchangeably. For the sake of consistency, these instructions will use "networked" wherever possible.

1.4   64-Bit Platforms

        For networked database servers running Oracle 11g, Relius Administration is only supporting 64-bit systems.

1.5   This installation will only work on the supported operating systems listed below. All other operating systems (including Microsoft Small Business Server and virtual systems) are not supported. The use of virtual environments and connections are not recommended by SunGard Relius. For additional technical information regarding this topic, please contact Relius Administration Technology.

        • Windows Server 2008 x64
        • Windows Server 2008 R2 x64
        • Windows Server 2012 x64

1.6   Exporting Existing Oracle Databases

The networked database installation will not migrate your database for you. You must run your own export before beginning. As most clients will need to purchase a new database server, the best method for migration is as follows:

- Export database (recommended method is through DBUtil).
- Copy exported database "dump" file to a safe location.
- Install and configure Oracle 11g.
- Import database (also recommended method is through DBUtil).

1.7   Running Programs

Many program and system files will be installed to the server. Because of this, all programs should be closed before beginning. Failure to close all programs before beginning may result in a failed installation. A reboot will be required when the installation has completed.

1.8   Windows Update

SunGard Relius encourages the use of Windows Update. However, Windows Update can interfere with the installation process, such as requiring a reboot in the middle of an installation that has not yet completed. Users should run all Windows Updates marked as "Important" before beginning this process.

1.9   Virus Scanning

SunGard Relius does not support, endorse, or recommend any particular edition of software used to scan for viruses. However, SunGard Relius does recommend that users conscientiously install, update, and use their virus scanning software to keep their systems running optimally. Unfortunately, systems running real-time virus scanning will be excruciatingly slow while installing Oracle. **Users should temporarily disable virus scanning during the installation process.** When the installation is finished, users can re-start virus scanning.

Some editions of Norton Internet Security have generated "False Positive" results when installing Relius Administration products. If you are running Norton Internet Security, it is imperative that you temporarily disable it while running Relius installations.

1.10   Scheduled Weekend, Holiday, or Priority Support

Please call Relius Administration Technology Support (1-800-326-7235, Option 3) at least one week before beginning your migration if you wish to schedule priority support.

1.11 DVD Drives

Because of the limitations of space on data CDs, the Relius Administration Oracle Database Installation is now delivered on a data DVD. If your optical drive only has the CD logos on it, you may not have a DVD drive available on your system.

	Example of CD logos:	
	Example of DVD logos:	

Another way to verify is by opening Windows Explorer and checking the type of optical drive you have (eject whatever disk may be loaded). If "DVD" is not specifically in the name of the drive, you may not have a DVD drive. The picture below indicates a CD drive, not a DVD drive.
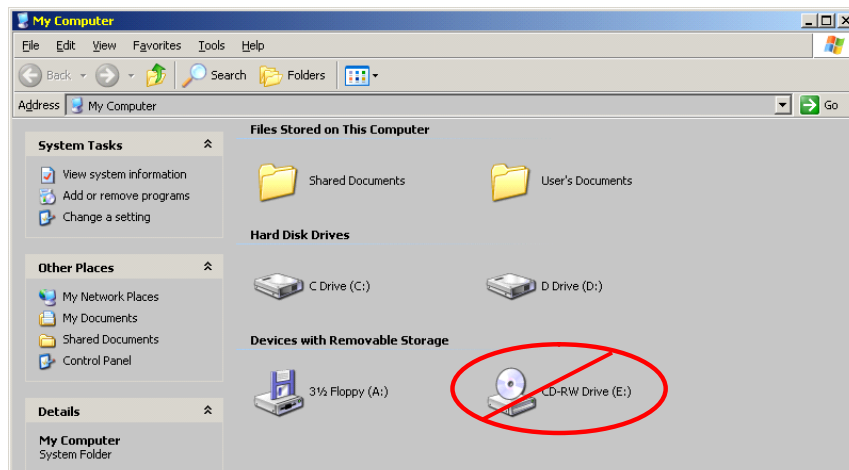
1.12 Available Memory and Drive Space

Your server must have the required amount of memory and non-system drive space to accommodate your particular database requirements. Please log on to our web site to obtain the most up-to-date analysis of your data and to retrieve a current "server category code" prior to conducting this installation.

1.13   Windows Firewall

Microsoft Windows has advanced firewall systems embedded with the operating system. Because of this, some applications are denied access to the Internet. Oracle 11g includes some files (such as JavaW.exe) that may cause the Windows Security Alert to launch. If this happens, click *Allow* or *Unblock*, and the installation will proceed. To prevent this, temporarily disable the firewall service during installation.


1.14   Test Installation

Before converting your production database to Oracle 11g, SunGard Relius Technology suggests a "dry run" of the migration. This will enable you to determine how long your database will be offline until the migration is complete.

1.15   Remove Licensing Before the Migration

If you are migrating your database from Oracle 10g, you should remove your licensing (at the workstation). Ensure users are disconnected and your Web, VRU, and Agent systems are offline. From the main Relius Administration menu, click *Utilities | System Administration | Administrator Update*. In the Administration window, click *Licensing | Remove Licensing*. You may be prompted for your corporate license password issued by SunGard Relius. When licensing has been removed, you are ready to export your database from the old server.
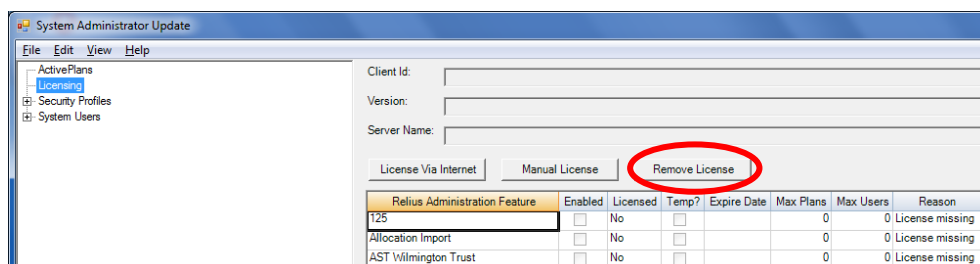
1.16   Shut Down Old Server Before the Migration

Once you have removed the licensing and exported the database from your Oracle 10g database server, SunGard Relius strongly encourages that the old server be taken offline. This is necessary to keep users from accessing the wrong database server. To take the database offline, there are three different options:

- Stop the Oracle Listener and the OracleServiceRADB services and set them to manual.
- Remove the machine from the network.
- Completely shut it down.

1.17   Server Categories Explained

During the installation (see Step 2.18), you will be prompted for a server category code. If you haven't received a recommended server category code from Relius Technology Support, please access the "Server Category" form on the Relius Administration Support web site (https://www.relius.net/support/Login.aspx). Click *Technology* and then *Calculate Oracle Database Server Recommendation*.

The form determines the type of server you need based on the following information:

- Average plan size
- Average accounts per plan
- Number of administrators
- Total number of plans
- Specifics about large plans

To retrieve the necessary information directly from your existing database, click *Reporting | Report Writer Reports* within Relius Administration 17.0 or higher. Browse the "tree" on the left side of the Report Window to *Miscellaneous | Database*. Choose the "Database Information" report.
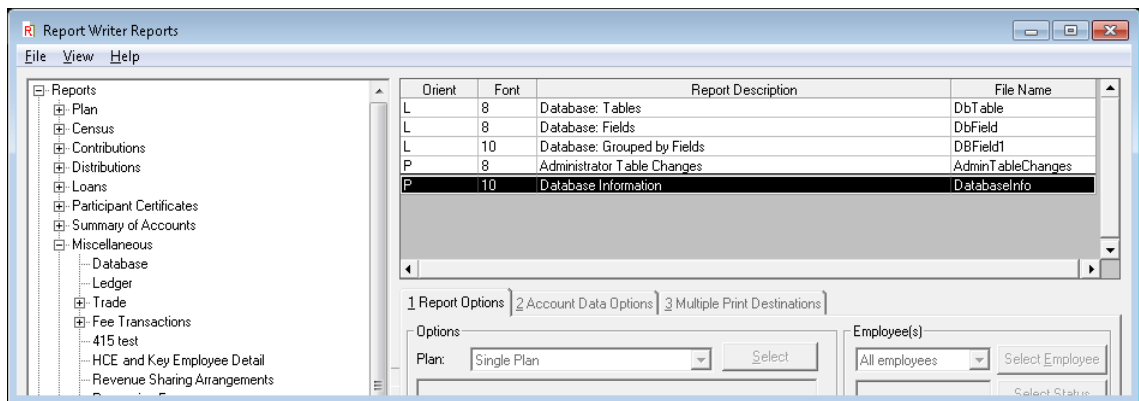
Do not proceed until you have received a server category from SunGard Relius.

The chart below provides minimum specifications for each server category.

| Category	Minimum CPU		Minimum RAM	Minimum Data Drive Space
	# Of CPUs	Speed		
1	1	1.6 GHz	2 GB	100 GB
2	1-2	2.0 GHz	4 GB	200 GB
3	2	2.4 GHz	6 GB	400 GB
4	4	3.0 GHz	6 - 12 GB	500 GB

2 Installation

Remember that this installation can take a minimum of 45 minutes to one full hour.

2.1   Temporarily disable virus scanning and Windows Firewall services.

2.1   Re-start the system to "flush" any running programs from memory.

2.2   Log on as the System Administrator or a user with full, local System Administrator privileges. Ensure the system is connected to your network.

2.3   Ensure that all programs are closed.

2.4   Insert the **Relius Administration Oracle 11g Database Server Install** DVD into the DVD drive.

2.5   If the installation does not automatically start, click *Start | Run* and type in **<DVD Drive>:\Setup.exe**, substituting <DVD Drive> with the drive letter of your DVD-ROM or DVD-R drive. Click *OK*.
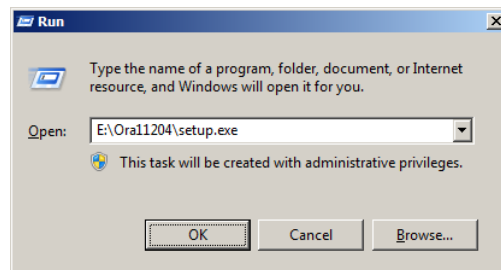
2.6   The installation program will extract the necessary files.
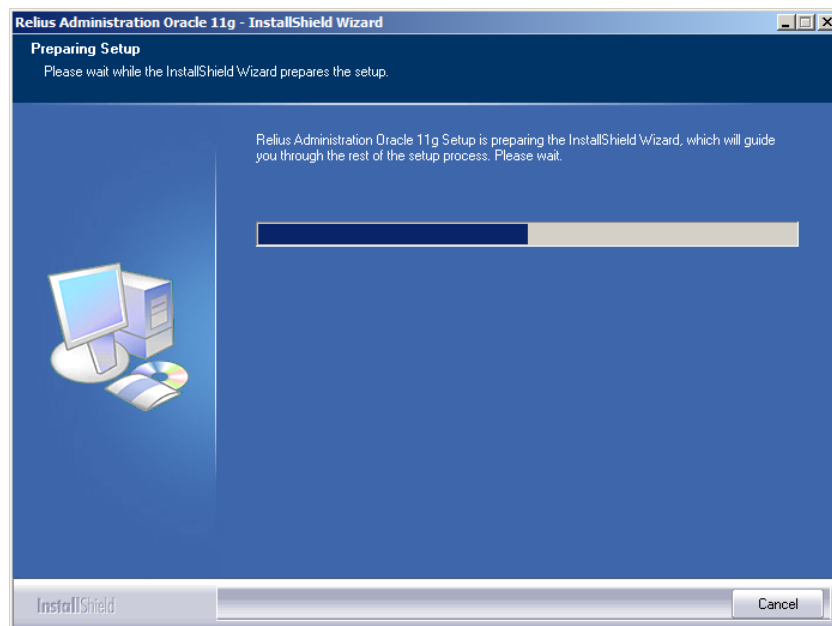
2.7   Because of new restrictions on Windows Server, network discovery is usually shut off by default. Additionally, the Windows Firewall is severely limited. To achieve a successful Oracle installation, two commands will be issued. The first will enable network discovery, allowing workstations to access your database. The second command enables the default Oracle communication port.
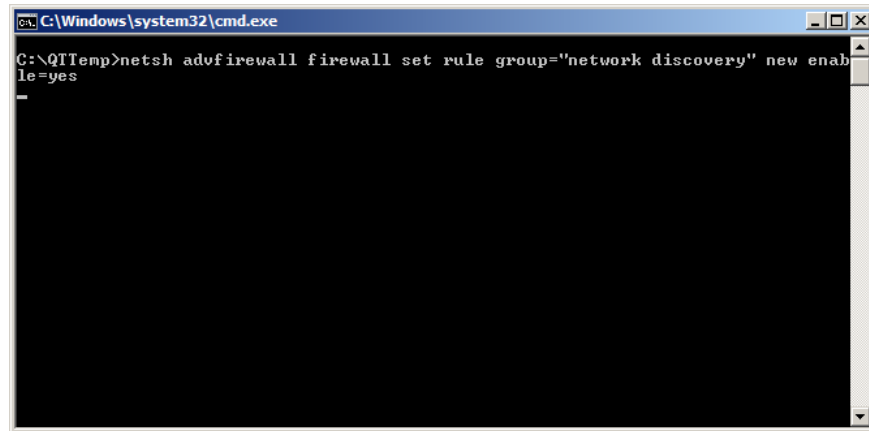

2.8   Microsoft.Net 3.5 SP1 may be required before any other prerequisites. On Windows Server 2008 R2, it will have to be installed differently.
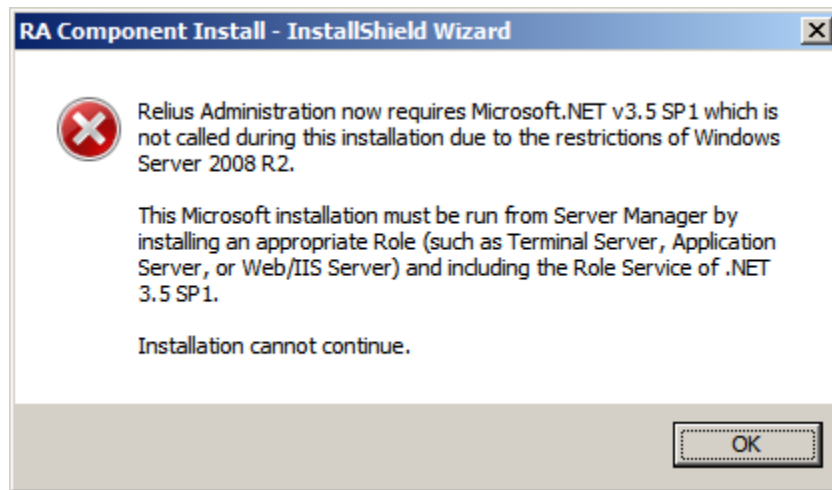
2.9   If you get a message that states .NET has to be configured before installing Oracle, use the following steps:

- Log on as a user with local administrative privileges.
- Open Windows Server Manager.
- On Windows Server 2008 R2, install the .NET 3.5 SP1 **Feature**. Do not install the other .NET items at this time.
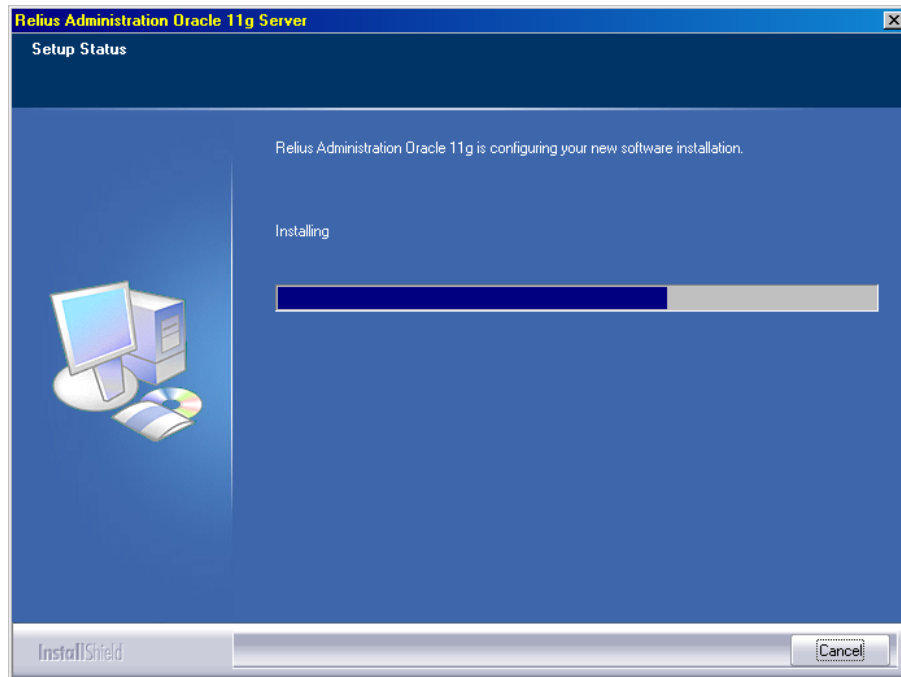
2.10   Prior to checking for many installation prerequisites, Microsoft .NET 4.5 SP1 must be installed and configured.
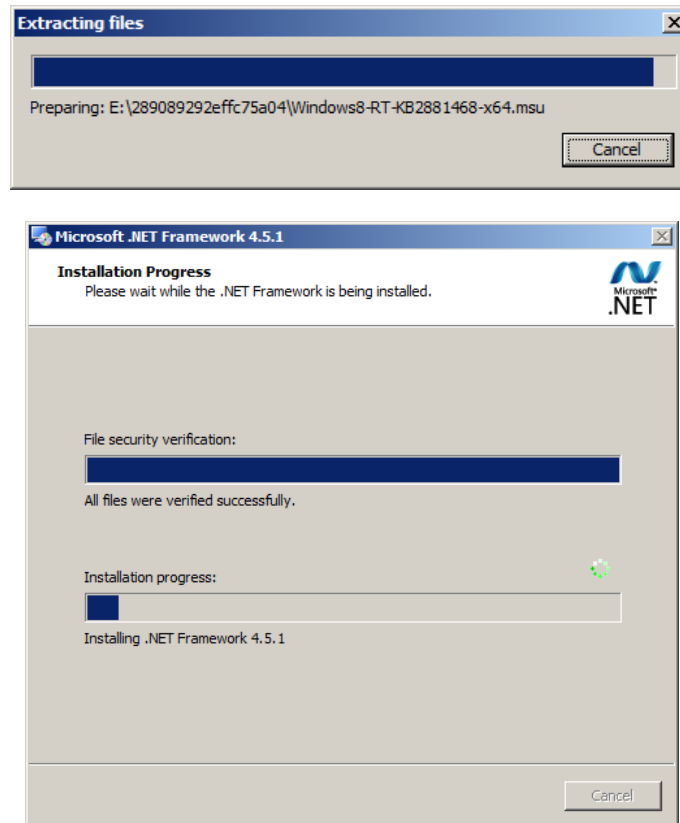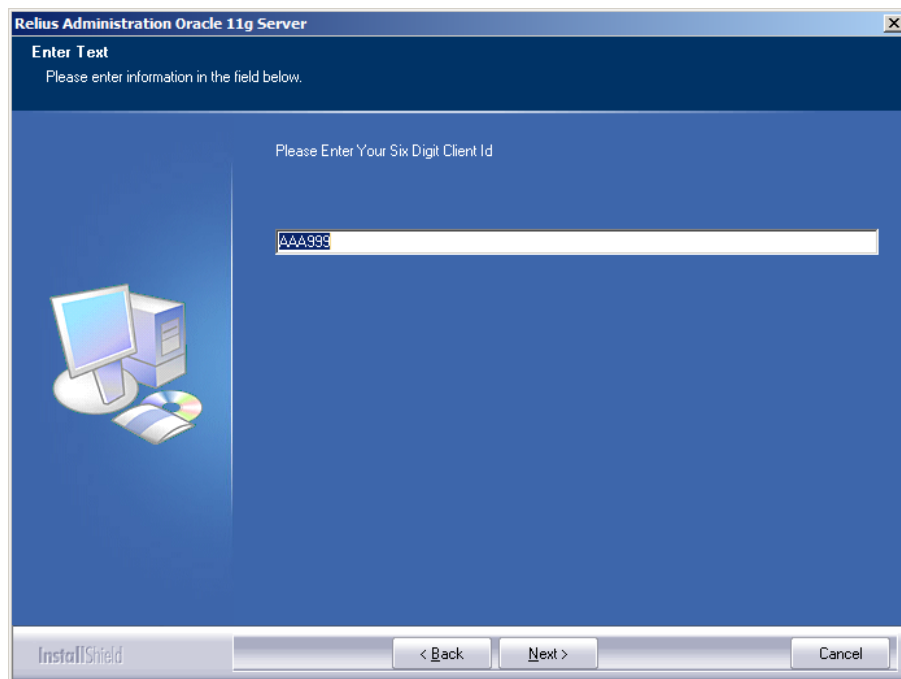

2.11   At the Welcome Screen, click *Next*.
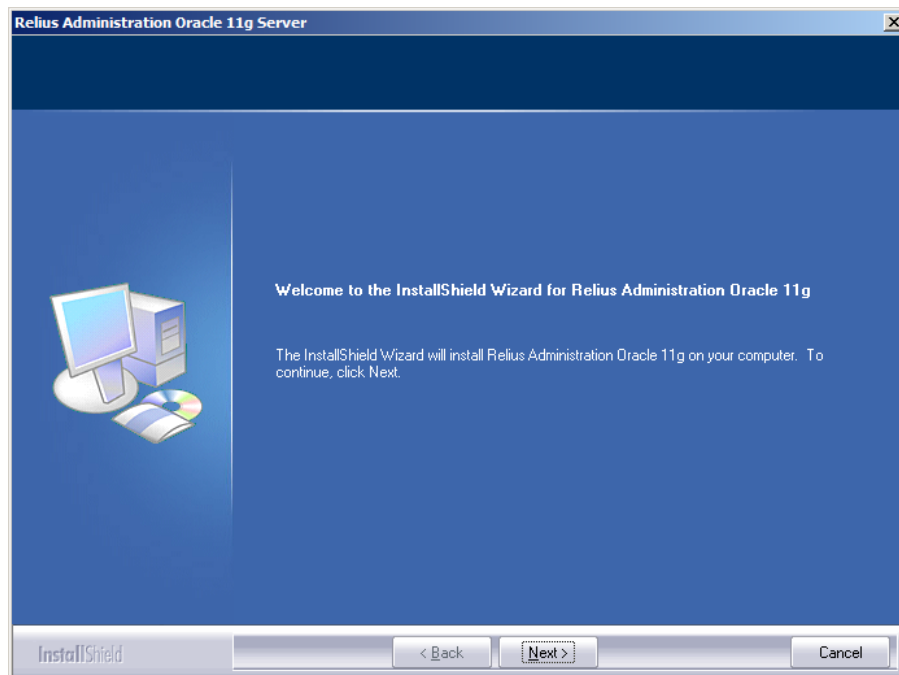
2.12   Some preliminary files will be copied to your system. These files are required to build and configure your database system before Oracle begins to install.


2.13   You will be prompted to enter your ClientID. This is the six-character alpha-numeric code that is assigned to your particular company. Click *Next* to continue.

2.14 You will be prompted to enter your specific server category code. This code is determined by a formula on our web site. If you have not yet acquired the code, please log on to our web site and get your code. Click *Next* to continue.
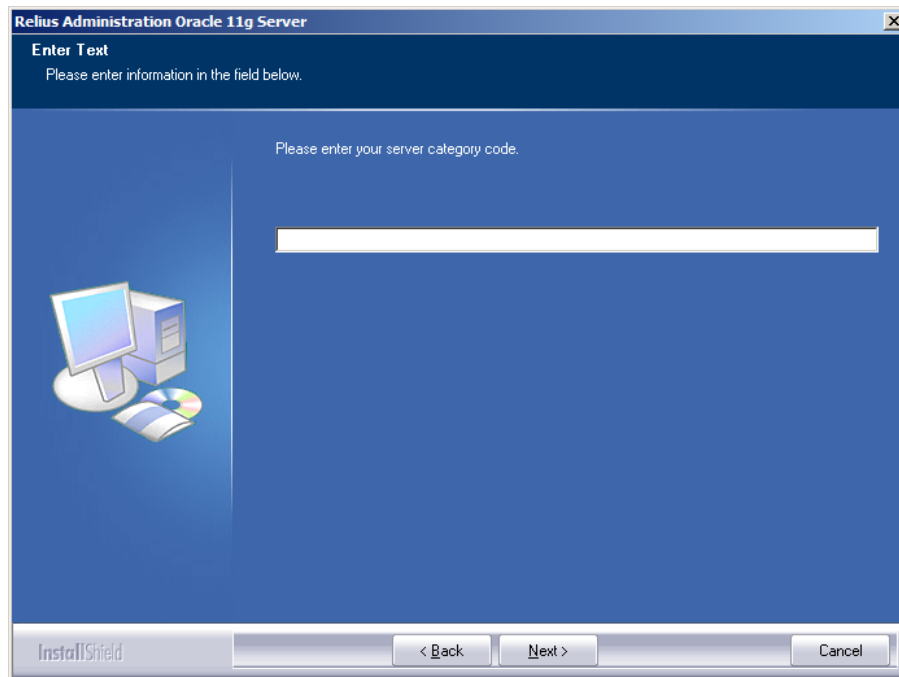

2.15 You will be prompted to select where the Oracle 11g **Software** will be installed. The Oracle software can be installed to any local drive with enough available space.
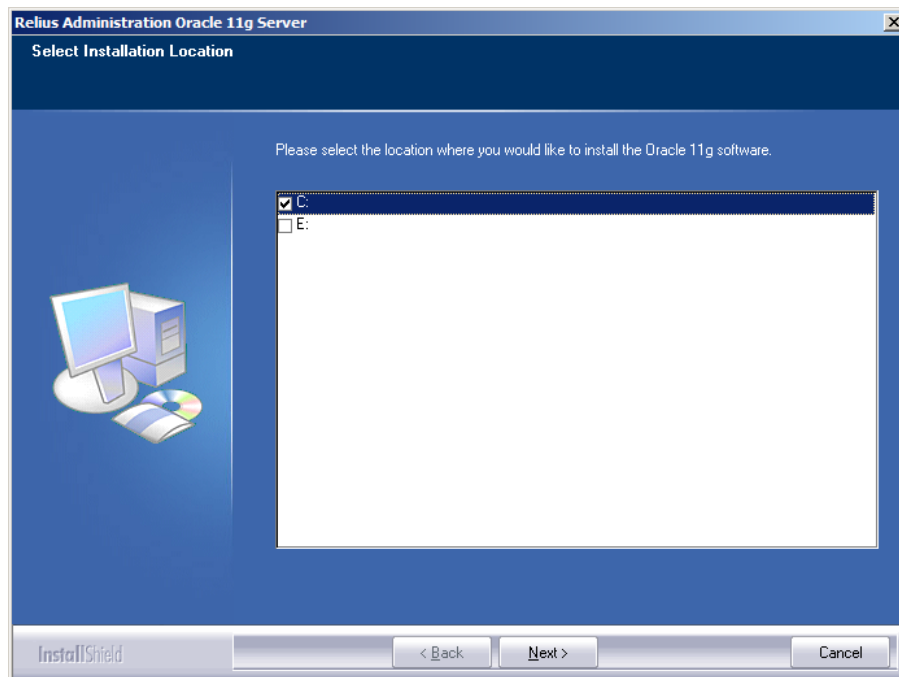
2.16   The Oracle Installer will launch automatically. You may be prompted with a Security
   Warning. Click *Run*.

2.17   **Due to the extensive nature of Oracle, this process may take several minutes, and
        there will be no window to indicate installation status.** This is expected. Do not
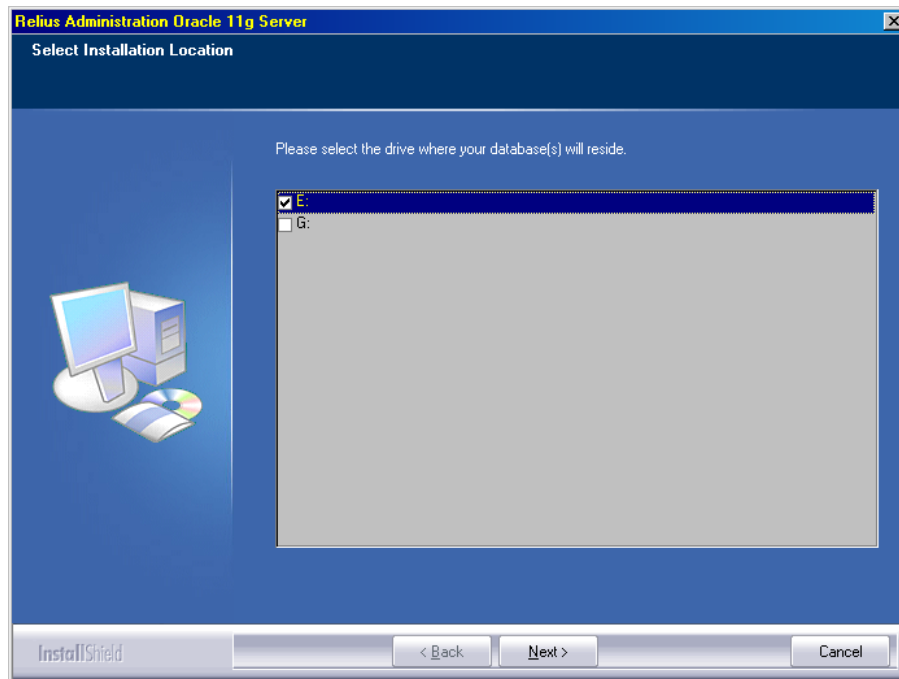   interrupt.
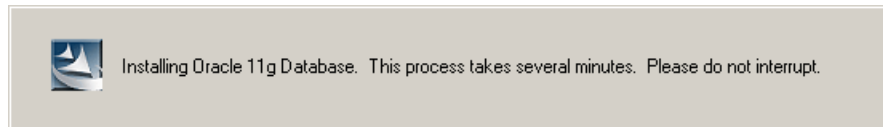
2.18   When the installation of Oracle software has completed, you will be prompted to enter the IP address or the name of the server on which you are currently installing. **It is imperative that the correct IP address or server name be entered at this time, especially if you have multiple servers in your environment. Entering the wrong IP address or server name can result in catastrophic loss of data.** If you are unsure of the name or IP address, contact your network administrator. Click *Next* to continue.
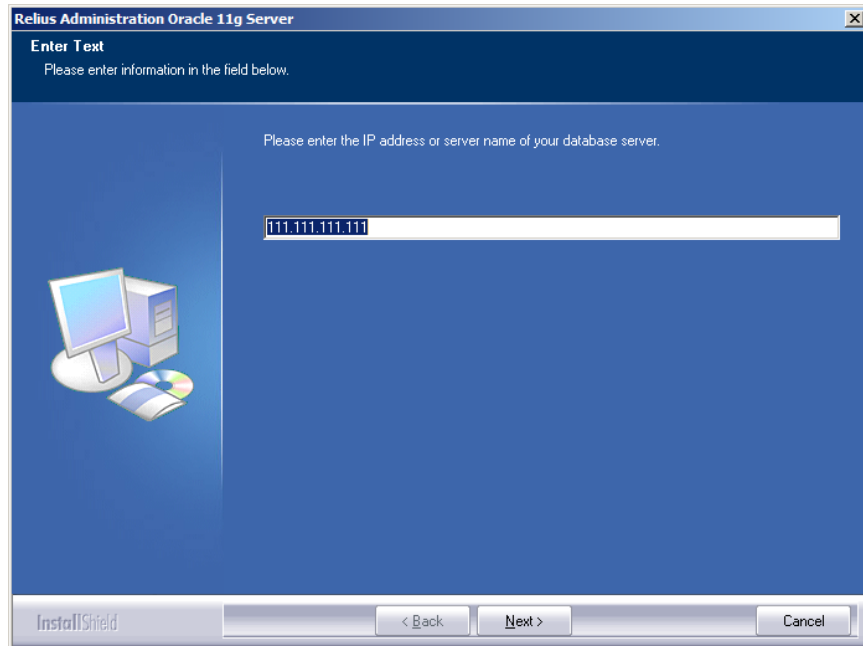

2.19   You will be asked for a password for your Oracle Listener. The default will be your ClientID. You are at liberty to change it. However, once it is changed, SunGard Relius cannot retrieve it for you. Plan accordingly.
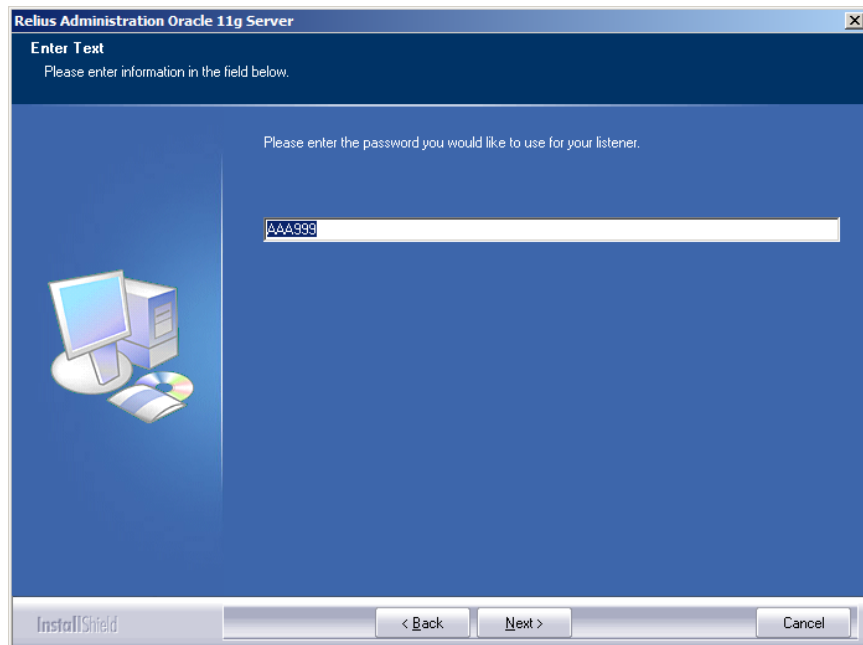
2.20   If more than one non-system drive exists with enough available drive space, you will be prompted for the location of your Oracle **data** files. Ideally, this would be the largest available drive, allowing your database to grow as needed.


2.21   Your Relius Administration database (RADB) will begin building. Depending on your system's performance, this may take several minutes. Do not interrupt the process.
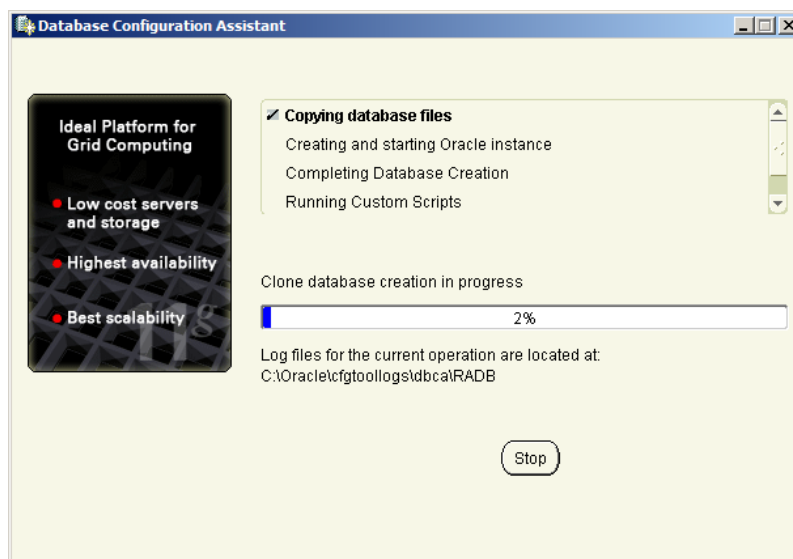
2.22   When the database has finished building, the "Database Configuration Assistant" window will appear. By default, your database passwords have been set for you. Click *OK*. Do not click the "*Password Management*" button. If you wish to change the passwords on your database system, this task can be performed after the installation has completed.
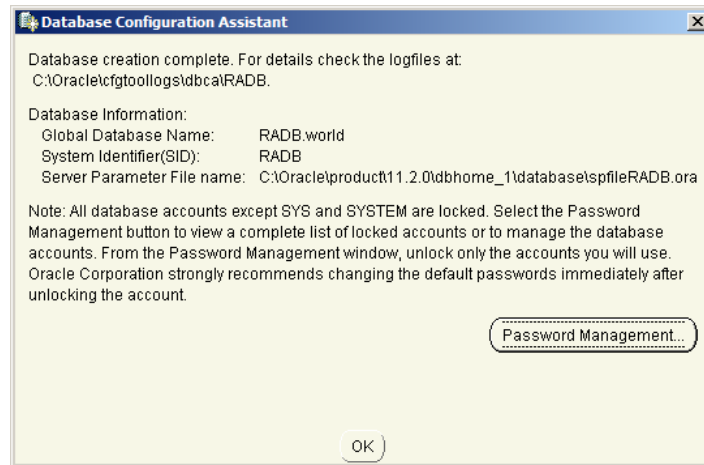

2.23   The final screen is shown below. Be sure **"Yes, I want to restart my computer now…"** is selected before you click *Finish*.
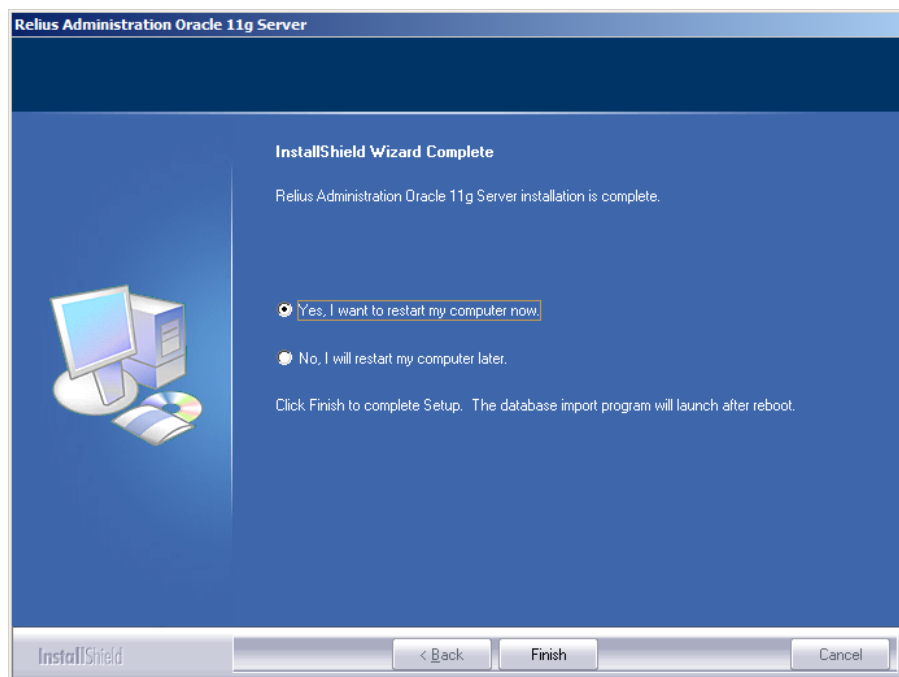
3	DBUtil

A new Database Utility has been provided for you to accommodate simple import and export requirements. The utility also runs specific Relius provided scripts against your database and tests connectivity to ensure a database is on-line. To perform more intense tasks, please discuss the potentials of Relius SuiteManager with your SunGard Relius Sales Representative.

3.1 Open the program by clicking *Start | Programs | Relius | Admin | Database Utilities*. You will be prompted for elevated privileges.

3.2 As changes are made, you can save them by clicking *File | Save* or using the **<Ctrl>+<S>** keyboard shortcut.
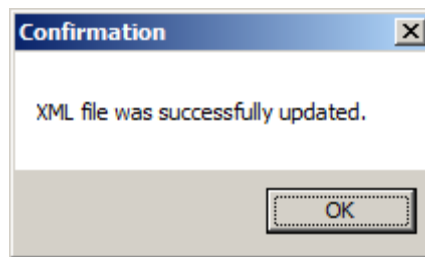
3.3 A grid will display in the **Settings** tab. In this grid is your RADB database. Ideally, the SID would be RADB, the Status should be "Up," and the Type is set to "Default." You can right-click any item on the grid to add or delete a database entry, test the connection, or refresh the grid. (Please note that adding or deleting an entry in Database Utilities does not create or remove the actual Oracle database.)
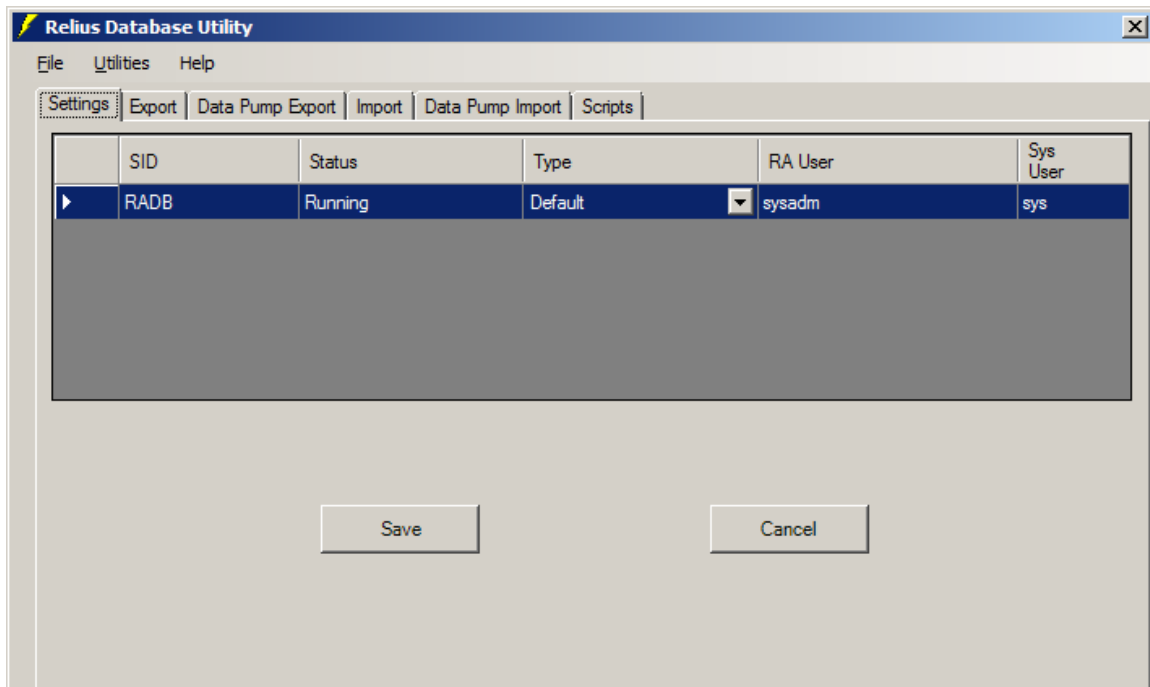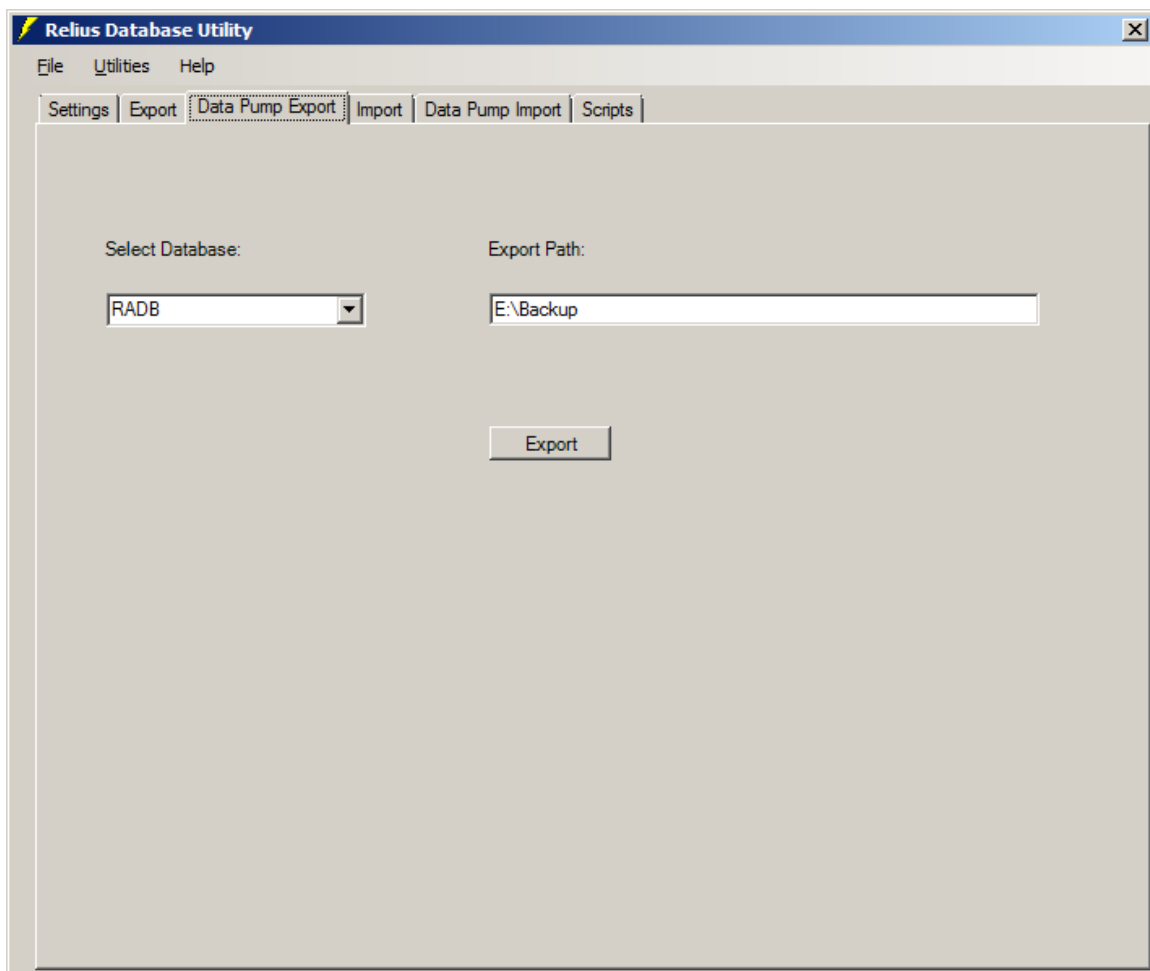
3.4   The **Export** tab has three components: database, path, and execution. From the drop-down list, choose which database you wish to export. Either type your export path into the field or click the *Browse* button to find the location. Once those are set, simply click *Export*. Your exported database export file and corresponding log file will be named after the database instance and a date/time stamp. For example, if you exported RADB on April 27, 2014, at 9:08 a.m, the files would be named `RADB-2014-04-27_09-08-00-AM.dmp` and `.log`.

Users are cautioned to keep a close watch on available disk space if the Database Utility is used as a regular means of exporting data. With each export, a new export file is generated. This will cause your available drive space to diminish quickly if not properly maintained. If this utility is used for the regular backup regimen, you must ensure that your available drive space is maintained by backing up and manually removing older exports. For the purposes of a nightly automated backup the long-standing RABCKEXP.BAT process is still available and a better choice.
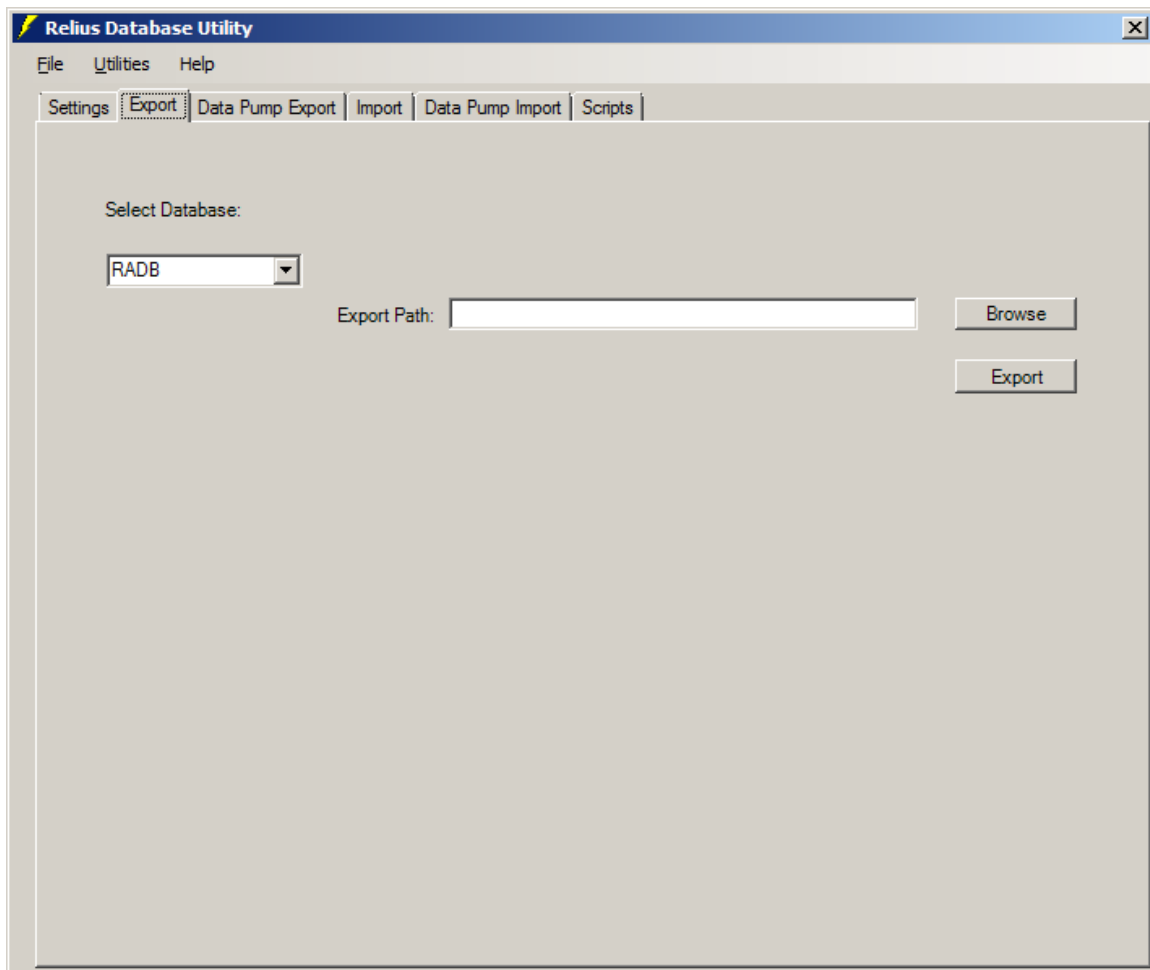
3.5   The **Data Pump Export** tab has three components: database, path, and execution. From the drop-down list, choose which database you wish to export. There is no Browse button, as data pump exports use a preset location in the database. (To set that location, run DPDir.bat – as administrator – in the Oracle "Bin" folder, normally C:\Oracle\product\11.2.0\dbhome_1\BIN.) To launch the data pump export, simply click *Export*. Your exported data pump export file and corresponding log file will be named after the database instance and a date/time stamp. For example, if you exported RADB on April 27, 2014, at 9:08 a.m, the files would be named `RADB-2014-04-27_09-08-00-AM.dp` and `.log`.

Users are cautioned to keep a close watch on available disk space if the Database Utility is used as a regular means of exporting data. With each export, a new export file is generated. This will cause your available drive space to diminish quickly if not properly maintained. If this utility is used for the regular backup regimen, you must ensure that your available drive space is maintained by backing up and manually removing older exports. For the purposes of a nightly automated data pump exports, RADB-ExpDP.BAT process is available.

3.6   The **Import** tab has four components: database, options (which include buffer, statistics calculations, and dropping of previous objects), path/file, and execution. From the "Select Database" drop-down list, choose which database you wish to import. From the "Select Import Buffer" drop-down list, choose your buffer size (default is 61440). Either type your database export file name into the field or click the *Browse* button to find the file. Once those are set, simply click *Import*. Your import log file will be named after the database instance and a date/time stamp. For example, if you imported into RADB on April 28, 2014, at 12:15 p.m, the file would be named `impRADB-2014-04-28_12-15-00-AM.log` (notice the "imp" at the beginning of the file name).

Note: if your database export is larger than 100 GB, call Relius Technology Support to check for the need to add data files to your system before the import begins.
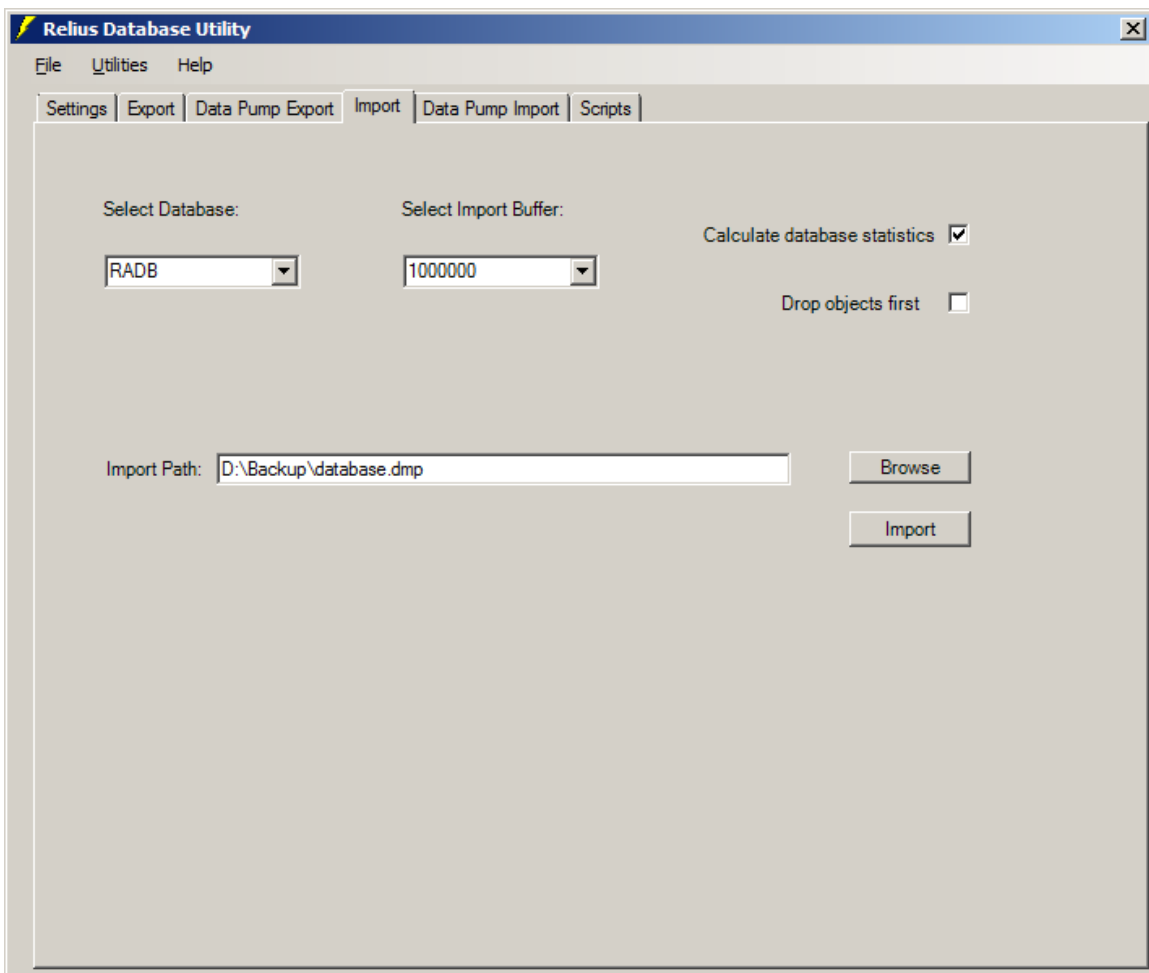
3.7   The **Data Pump Import** tab has four components: database, options (which include buffer, statistics calculations, and dropping of previous objects), path/file, and execution. From the "Select Database" drop-down list, choose which database you wish to import. From the "Select Import Buffer" drop-down list, choose your buffer size (default is 61440). To choose a file, click *Browse*, and choose the file name. The path is preselected through the database setting mentioned in Step 3.5. Once the file is chosen and the other options are set, simply click *Import*. Your import log file will be named after the database instance and a date/time stamp. For example, if you imported into RADB on April 28, 2014, at 12:15 p.m, the file would be named `impRADB-2014-04-28_12-15-00-AM.log` (notice the "imp" at the beginning of the file name).

Note: if your database export is larger than 100 GB, call Relius Technology Support to check for the need to add data files to your system before the import begins.
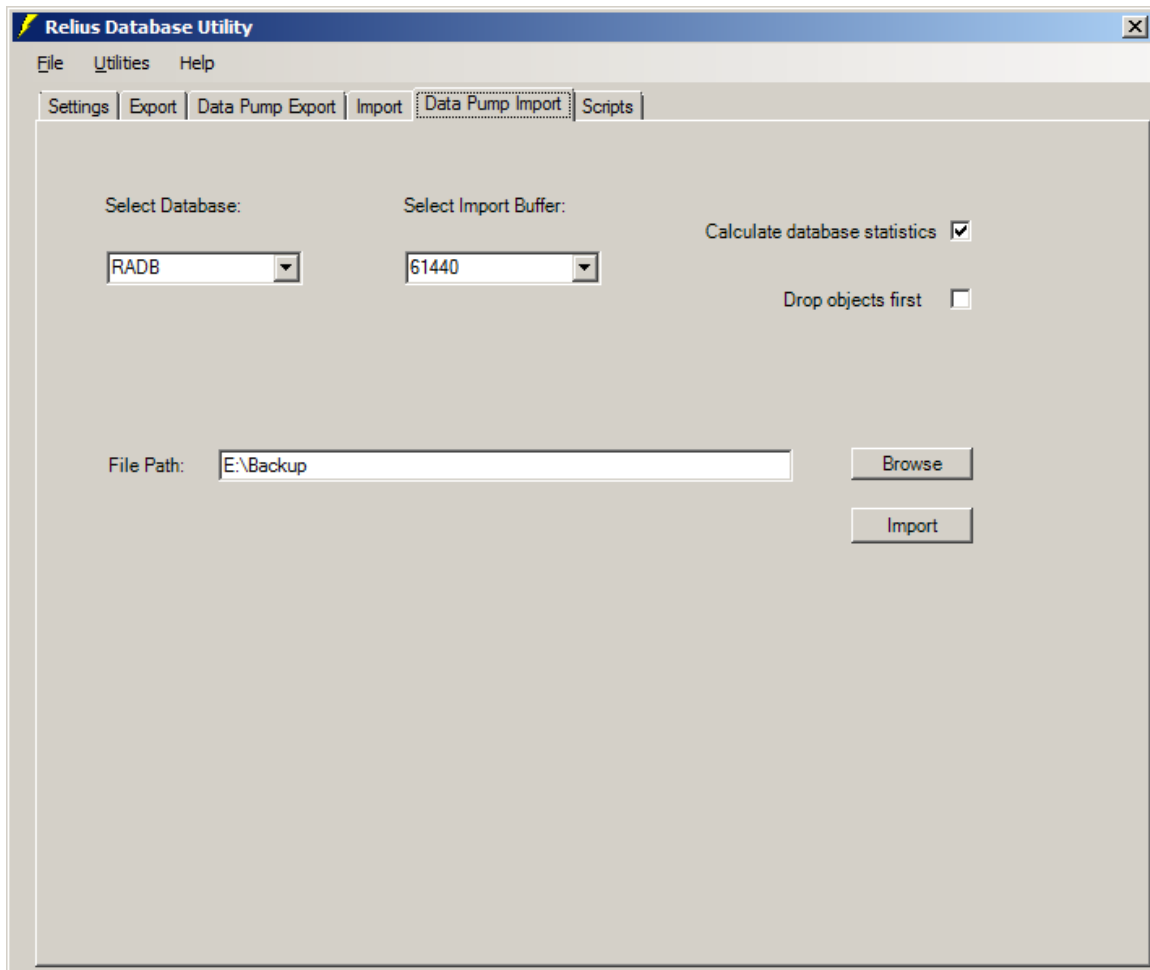
3.8   Please note that if you choose "Drop objects first" before importing your database (either through standard or data pump import), your existing data will be permanently removed. Before that happens, you will receive two warnings. Once this process begins, your existing data is lost. Use the "Drop objects first" feature with caution, as SunGard cannot recover your data, **neither can the import file you have chosen be guaranteed by SunGard to be valid**.
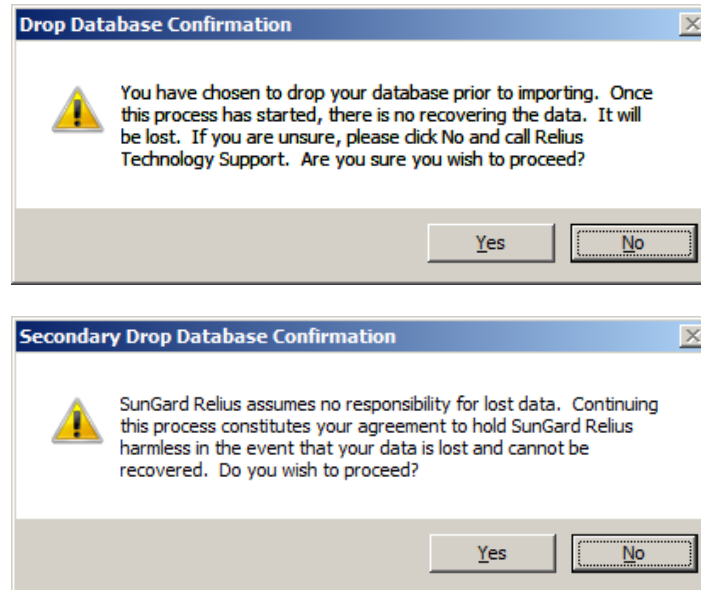
3.9   Running scripts against your databases is now much easier through this interface. Click the **Scripts** tab. Choose the database, as well as the path and file name of the script. When executing the script, you will be advised that the script must have an "EXIT" command. Without the command, the Database Utility will appear to lock up when the script has finished executing. **Users are cautioned about running scripts that were not provided by SunGard Relius and at the recommendation of a qualified Relius Administration Support Technician.** Extra care should be taken as some scripts can be destructive.
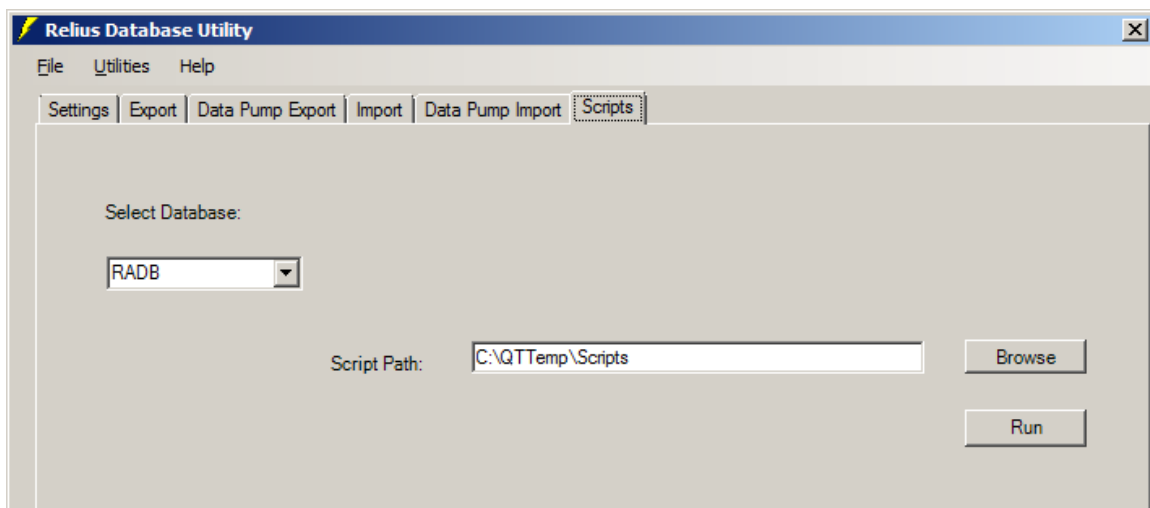
3.10   If enabled, after a script has been run, a notice of completion will appear.

Run Script

The script 'DBS11.SQL' executed successfully.

OK
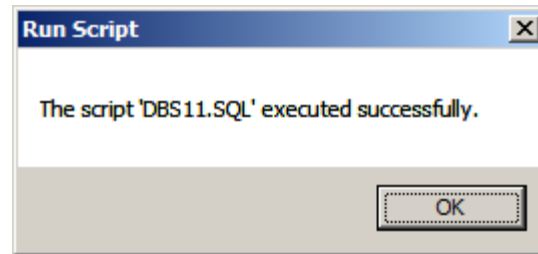
3.11   However, if you do not want to receive these notices, you can shut them off, you can click *Utilities | Confirmation* to remove the check mark. You will be prompted to verify that you want the setting turned off. When finished, click *File | Save*.

Script Confirmation

You are about to disable the setting to determine when your scripts have completed running. Changing this setting may impact how your database performs, especially if you have to wait for the completion of a process before proceeding. Do you wish to continue?

Yes   No
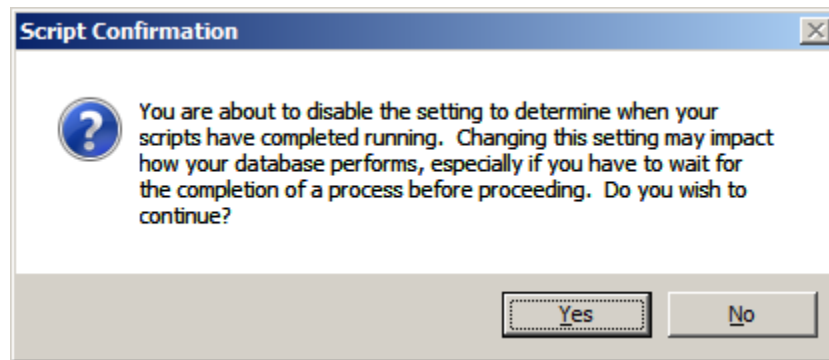
3.12   To launch an automated export, first run an export manually through the Export tab. Once the export has completed successfully, save your changes and exit the program. Create a Windows Scheduled Task (*Start | Programs | Accessories | System Tools | Scheduled Tasks*). The command line for the task (including quotation marks) is:

`"C:\Program Files (x86)\Relius\AdminDB\DBUtil.exe" /export`

The database that will be exported is the one marked as "Default" in the Settings tab in DBUtil.

3.13   For further information about this utility, please call Relius Technology Support.

Enabling Archive Log Mode

Enabling archive log mode on the Oracle 11g database involves the following steps:

- This example assumes your database was built on the D: drive of your Oracle 11g Server.

- If it doesn't already exist, create a folder for the archive logs, normally **D:\Relius\Admin\RADB\ArchiveLogFiles**.

- Click *Start Programs | Oracle | Application Development | SqlPlus*. When prompted, enter the connection information, example below:

  ➢ `sys/<your system password> as sysdba`**\<Enter>**

  ➢ **`create pfile from spfile;`**\<Enter>

  ➢ `alter system set log_archive_dest = 'd:\relius\admin\radb\ArchiveLogFiles' scope = spfile;`**\<Enter>**

  ➢ `alter system set log_archive_format='%%ORACLE_SID%%_ARC%s_%R.%T' scope = spfile;`**\<Enter>**

  ➢ `shutdown immediate`**\<Enter>**

  ➢ `startup mount`**\<Enter>**

  ➢ `alter database archivelog;`**\<Enter>**

  ➢ `alter database open;`**\<Enter>**

  ➢ `shutdown immediate`**\<Enter>**

  ➢ `startup`**\<Enter>**

  ➢ `alter system archive log current;`**\<Enter>**

  ➢ `exit;`**\<Enter>**

- Regularly monitor the server to ensure the disk drives have enough space.

Table Maintenance

Clearing the temporary and report tables should be performed on a regular basis. The interval chosen by the client greatly depends on the amount of data in the database and the number of users running reports. As a minimum, this procedure should be performed no less than weekly. There are two ways to clear the temporary and report tables:

- From the main menu within Relius Administration, click Utilities | System Administration | Temporary Table Maintenance. You must be in Relius Administration as the System Administrator (not a regular user). This manual process is redundant if running the automated process.

- From the database server, open a Windows Command Prompt and type `C:\Oracle\product\11.2.0\dbhome_1\BIN\RARPTTRN.BAT` **\<Enter>**. This procedure

can be automated as part of an unattended backup routine. You can schedule this to run through Windows Scheduled Tasks.

Important Note: Clients often report large volumes of space consumed in the QTUSER_1 tablespace due to irregular database maintenance. To help alleviate this situation SunGard Relius has scheduled an automatic "Temporary Table Maintenance" operation (sometimes known as QTClean) to occur at 9:00 p.m. each Friday night by default. For most clients, this will help maintain a cleaner environment as well as reduce export size. Some clients may desire to disable this operation due to the use of Straight Through Processing or a desire to prepare data once but print many reports from the same data. If you wish to disable the job, you will need to run a SQL script. To download the script, contact Relius Technology to download the script.

If clearing the temporary and report tables automatically, the manual process is unnecessary. However, there is no harm in running both. At times, a user may have to manually clear these tables if they become filled (e.g., from a heavy day of creating reports) before the scheduled process.

Starting & Stopping the Database

Starting and stopping the databases can be performed three ways: Command Prompt, Services, or Relius Shortcut. A simple method of restarting all databases and services is to re-boot the database server. The Oracle databases are designed to start automatically without logging on to the server.

- From a Windows **Command Prompt**, type the following commands to perform their tasks:

    o   RADBUP (Starts the RADB Instance)
    o   RADBDOWN (Stops the RADB Instance)

- From Control Panel, double click **Services** and scroll down to OracleServiceRADB to stop or start the database.

- To use the **shortcuts** provided, click *Start | Programs | Relius | Administration | Start (Stop) DB Instance*.

Manual Database Exports

A manual export is an additional method of backing up data. If a tape backup should fail, users can recover their data by importing the most recent export file into their database. Backing up the export file to tape, burning it to CD, or copying it to another server after the export finishes is recommended. **Do not export across the network; export locally, then copy.**

Executing C:\Oracle\product\11.2.0\dbhome_1\RABCKEXP.BAT will run an unattended export. This method will generate two files, the export file and a corresponding log file. The way the files are named depends on how many unattended exports have been run (see table below). This method can be scheduled to run automatically through Windows Scheduled Tasks.

1st Export	D:\BACKUP\RADBA.DMP & RADBA.LOG
2nd Export	D:\BACKUP\RADBB.DMP & RADBB.LOG
3rd Export	D:\BACKUP\RADBC.DMP & RADBC.LOG
4th Export	Starts over again with D:\BACKUP\RADBA.DMP & RADBA.LOG, overwriting the earlier one.

Additional Backup Notes

Any method of backing up data requires a test to see if restoring the system from a simulated disaster will work.

There are three basic methods of backing up the Oracle database server. The preferred method will be outlined in detail in this Section. The unsupported methods are discussed briefly.

Third-Party Backup (Unsupported)

The use of a third-party backup program is permitted, but not supported by Sungard Relius. The two most prominent solutions are CA ArcServeIT and Backup Exec by Veritas. (Please note: Identifying these products does not constitute endorsement or support of these products by Sungard Relius.) Both products sell a "backup agent" for use with Oracle databases, which, if configured correctly, will back up the database while it is on-line. If on-line backups are used, archiving must be turned on.

Use of these backup agents does not guarantee restorability and integrity of your data. These tools should be carefully considered (by advanced users only) before implementing them. Third-party backup programs that have a scheduler built into the program can use some of the batch files provided by SunGard Relius to perform certain functions -- such as database shutdown and startup -- before and after the backup.

Oracle Backup Tools (Unsupported)

Oracle provides certain tools to backup and restore data to a tape drive or other form of backup media. However, this method only backs up snapshots of the data files. Other essential files, such as Oracle configuration files, Windows files, and registry entries, are ignored. This method is not recommended or supported by Sungard Relius. For help on Oracle's Backup Tools, consult the Oracle documentation available at http://www.oracle.com.

Cold Backup (Preferred by SunGard Relius and Oracle)

The preferred method for backing up the Oracle database involves the steps listed below. This method provides the most reliable method of backing up your data with the least amount of risk.

It is very important to understand that, unless an Oracle-aware backup agent is used, the RADB instance must be shut down before performing the backup. When the database instance is open and running, the Oracle tablespaces are locked and cannot be backed up to tape without the Oracle-aware backup agent.

- From a workstation running Relius Administration, clear report and temporary tables (*Utilities | System Administration | Temporary Table Maintenance*).

- Export the database.

- Shut down the database.

- Back up D:\Relius\Admin\RADB and all its directories and files (substitute D: where your database files reside) to tape or other form of backup media. Additionally, back up your entire C: drive, including Operating System, configuration files, and Registry. Procedures will vary, depending on the tape backup software being used.

- Restart the database.

Manual Backups

Although DBUtil, described at the beginning of this Section, is recommended, some clients wish to use traditional batch files. Below is a list of each file necessary (and already included in your Oracle installation) with the purpose and function. Remember that each client's environment is unique, and these batch files are provided as a general-purpose guide to establishing your own method of maintaining your backups.

The batch files may need adjustment to suit your specific needs. SunGard Relius cannot be held liable for the use of these files once they are edited. Clients are urged to test the process before relying on them.

Batch File	Description
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RABCKFIL.BAT.	(Master command file)*
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RARPTTRN.BAT	(Performs report table purge)
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RABCKEXP.BAT	(Performs database export)
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RADBDOWN.BAT	(Shuts down database instance)
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RAFIL.BAT	(Performs NT tape backup)
CALL C:\Oracle\product\11.2.0\dbhome_1\BIN\RADBUP.BAT	(Restarts instance)

*This file launches other batch files that will perform sundry tasks available to you. These files can and should be adjusted to suit your individual needs, based on location of export files, whether to use the native Windows backup program, and varying drive mapping configurations.

Note: These files are provided as a toolkit only. Clients should comply with specific backup and recovery methods mandated by corporate standards as long as those standards of recovery work in a tested recovery and they do not cause the performance of the Oracle database system to degrade.

To use Windows Backup in the automated process, **you must edit RAFIL.BAT**. The command line refers to a file, C:\Oracle\product\11.2.0\dbhome_1\RELIUSBACKUP.BKS. Ensure that the file is present and referred to correctly in RAFIL.BAT. When you open the RELIUSBACKUP.BKS, you will notice that only two directories are backed up by default: D:\RELIUS and D:\BACKUP. If you wish to back up more than that, you will need to add the appropriate entries into this file and save your changes. These automated backup procedures are intended to write to a brand new tape that is in the tape drive. Rotate tapes accordingly.

To use a third-party backup program, remove RAFIL.BAT from your batch process and insert whatever commands necessary to launch your third-party software. You will need to review which batch files to use, so the third-party backup program will run while the database is still down.

The best test of a backup procedure is a manual test. First, launch the appropriate batch files to see if the database will purge (RARPTTRN.BAT) and export (RABCKEXP.BAT), then verify that the database services have stopped (RADBDOWN.BAT). At that point, the Windows Backup should begin (RATFIL.BAT). When it has finished, the database should restart (RADBUP.BAT). Verify connection from a workstation, the presence of a valid export in D:\BACKUP, and the presence of files backed up to tape.

If all these functions performed correctly, attempt a scheduled backup. Use the Windows Task Scheduler to create the scheduled backup. Make certain that you use a local administrator's account and password when prompted.

Automated Procedures

Windows Scheduler is recommended when scheduling and launching the batch process of automatically backing up the Oracle database server. Other scheduling programs can be used, as long as it does not interfere with the proper functioning of the database or the server. Third-party scheduling programs, as well as "live" backups using Oracle "agents," are not supported or endorsed by SunGard Relius.

If using scheduled or automated tasks to export your database, you need to validate that the job continues to run by checking the dates of the export and log files. If you elect to use the Windows Scheduler, you will need to update the scheduled task any time the password that is assigned to run scheduled the task changes.

Data Pump Exports

A new type of export is available through Oracle, called Data Pump. It is faster, more efficient, and more reliable. SunGard Relius has taken steps to allow these data pump exports to take place on your server through a batch file.

RADB-ExpDP.Bat   Run this file to conduct a data pump export of your database. Note that re-running this command will result in a set of three "rolling" exports files.

These commands should be run in a Command Prompt setting "as administrator."

For further assistance in establishing data pump exports as part of your regular backups, please call Relius Technology Support.

Export Log Files

When an export or data pump export is generated, a log file is created at the same time. Be sure to check the contents of your logs, especially if running via command line or in a scheduled setting. The very bottom of the log for a standard export should read:

```
Export terminated successfully without warnings.
```

The very bottom of the log for a data pump export should read:

```
Job "SYSADM"."SYS_EXPORT_SCHEMA_01" successfully completed at <time>
```

If the logs do not have that final line, please call Relius Technology Support for assistance.

Also note that the most common problem with data pump exports is a snapshot being too old. Search the log for any errors containing "ORA-01555" and call Relius Technology Support if one is present.

## Appendix A   Installing from a Network Resource

Note: Relius recommends running this installation from the local DVD drive to achieve best results.

The Relius Administration Oracle Database DVD can now be installed from a network resource. Due to the size of the component installation, and the possible lack of DVD drives on existing systems, SunGard Relius recognizes the need to install from a shared network drive. However, the following steps must be taken to ensure a smooth installation.

B.1   Copy the entire DVD to a separate folder on your file server (e.g., OracleDatabase).

B.2   On the file server, create a share and allow the necessary users to access the folder and all its files. Rights to "Write" and "Full Control" are not necessary.

B.3   From the workstation within Windows Explorer, click *Tools | Map Network Drive*. Enter the information accordingly. Be sure the user has the ability to reconnect whenever logging back on. This share **must** be map-rooted (setup.exe at the "root" of the network drive letter), or the installation will fail.
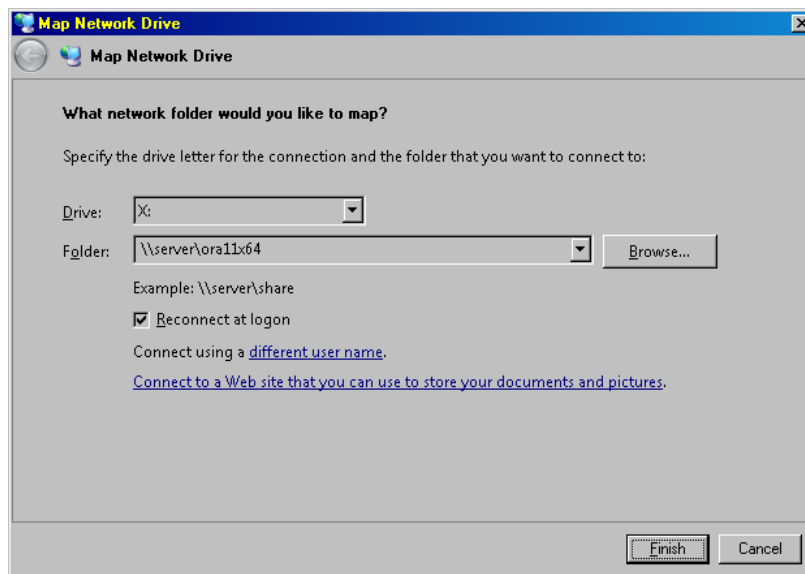
B.4   Run the installation from the newly mapped drive as if it were a DVD drive. Note: If the installation is not run via "map root," it will fail with the message below.
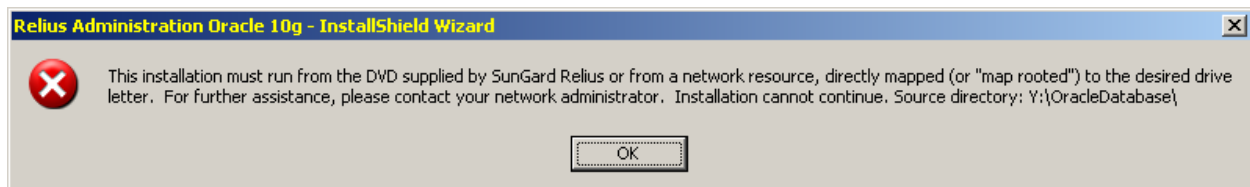
B.6   When the installation is complete and all necessary database files and components are installed, the mapped drive can be disconnected.

Appendix B   Migrating Your Oracle Database

Many clients will decide to purchase new servers to accommodate the ongoing changes and increasing demands placed on technology. The purpose of this Appendix is to provide a general overview of moving the Oracle Database from one server to another.

C.1   From the original server, export the database using Database Utilities. See Section 3.

C.2   Copy the exported database to the new server. You may need to use a network resource or compression utility if the file is too large to copy to a portable device or DVD. The best location for the file on the new workstation or server is a temporary folder that will not be impacted by the installation. For example C:\Temp or D:\Backup. Note: Do not put the file on your desktop or in a folder where the path contains spaces or apostrophes. This will cause the import to fail once Oracle is installed.

C.3   Run the installation according to Section 2.

C.4   After the system has rebooted following the installation, use DBUtil to import the database.

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