# EDM Drilling Database Guide

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# *Introduction*

The Engineer's Data Model™ (EDM) provides support for Drilling and Completions applications on a shared data model.

The common database schema allows for common data access, enables naturally integrated engineering workflows, and reduces data entry duplication across applications.

The Engineer's Desktop release 5000.1 provides users the ability to install EDM on SQL Server 2005 Express (which replaces MSDE), or Oracle platforms. It also allows you to migrate or upgrade previous Landmark Drilling Databases to the 5000.1 version. If your database is version 2003.14 or higher, you can use the new Multi-Version Database Upgrade Utility to upgrade to 5000.1.

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**Important:**

- EDT 5000.1 is a new product. If you are currently using an EDM database version that is 2003.14 - 5000.0.0, you must install 5000.1, then upgrade your database to 5000.1. The new Multi-Version Database Upgrade Utility (EDMPatchDB.exe) will do this for you.

- EDT 5000.1 can co-exist with previous versions of EDT on the same machine. However, LAM 5000 **will not** co-exist with previous versions of LAM (FLEXlm license server) on the same machine. Previous versions of LAM must be uninstalled before you install 5000.1. To run EDT 5000.1 and a previous version of the EDT applications on the same machine, you must point one or both versions of EDT to a LAM server located on a remote machine, since only one version of LAM can run locally.

Refer to the *EDT Drilling Installation Guide* for complete details.

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This document provides information and procedures for installing EDM using Oracle and SQL Server 2005 Express (which replaces MSDE), as well as the procedures for upgrading previous versions of the EDM database to 5000.1. All pre-EDM Landmark Drilling database versions must be migrated to at least 2003.14 before final upgrade to 5000.1. The migration of drilling data from pre-EDM applications is covered in the *EDM Drilling Data Migration Guide* (EDM_Drilling_DataMigration.pdf). This guide can be found in the Windows Start menu after the Drilling and Completions installation is

complete (e.g., **Start > Programs > Landmark Engineer's Desktop 5000.1 > Documentation > User Guides**).

## Database Security

The 5000.1 release of EDM includes a standard EDM Security Model. This Security Model supports group and user permissions, Tight Project, Site and Well protection, and application security tokens. For more information on security, see *EDM Administration Help*.

Landmark does not recommend customizing the EDM data model, as changes may conflict with or be removed by future versions of EDM.

## Backup Strategy

Defining a reliable backup strategy is vital to any Database Administrator's role to enable timely restoration of the database in the event of a database server failure. Landmark recommends the establishment of a backup strategy prior to loading data.

# *Database Creation*

## Overview

Creation of the Engineer's Data Model (EDM) in a SQL Server or Oracle environment can be accomplished using the Database Creation utility. This utility runs scripts that can be edited by the EDM Administrator to create a brand new EDM schema in the SQL Server or Oracle environment.

This chapter outlines the procedures for upgrading a new EDM instance in a SQL Server or Oracle environment using the Database Creation utility.

# Create a 5000.1 SQL Server 2005 Database

This section outlines the required tools and procedures for creating a new 5000.1 SQL Server 2005 Database. Once this procedure has been completed, the database can be run on either SQL Server 2005 Express or SQL Server 2005.

These instructions are not intended for users that are already using a previous version of the EDM Drilling Database. For information on upgrading a previous version of the EDM database, see "Database Upgrade" on page 45.

For information on migrating pre-EDM data, see the *EDM Drilling Data Migration Guide.* This document is available in .PDF format and can be accessed from the Windows Start Menu once the Drilling & Completions installation is complete (e.g., **Start > Programs > Landmark Engineer's Desktop 5000.1 > Documentation > User Guides**).

## *Required Tools and Installation*

### Database Creation Tool

#### *About Database Creation*

The EDM Database Creation tool allows the user to create an EDM 5000.1 instance on a SQL Server 2005 database. This procedure creates the necessary .MDF and .LDF files used by the Drilling & Completions applications.

#### *Locating and Installing the Database Upgrade Tool*

To install the EDM Database Creation tool, choose *Database Creation* from the Selection Components list during the EDM 5000.1 installation process (see the *EDM Installation Guide*, EDM_Install.pdf). This will place a shortcut to the Database Creation tool in the Windows Start Menu (e.g., **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > EDM Database Creation**) .

## *Creation Procedures*

The following procedure must be used by clients who do NOT have an EDM database and wish to create one on SQL Server 2005.

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**Default SQL Instance**

The EDM installation expects a SQL instance named "EDM5000". If the instance name is other than EDM5000, an error will occur. If you desire to use an instance with another name, attach it after the installation with the SQL Server Utility.

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**Manually attaching SQL databases when SQL Server Administration is not installed**

If you create a new EDM 5000.1 database with the EDM Database Creation utility, you will need to manually attach the database to any SQL instance that is not named "EDM5000".

This work around addresses cases where SQL Server Administration is not selected as a feature during the EDT 5000.1 installation, and a SQL instance with a name other than "EDM5000" will be used.

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### Creating the SQL Server 2005 EDM Database

1. Follow the menu path:

   **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > EDM Database Creation**

   The *Database Schema Creation Wizard* dialog appears.
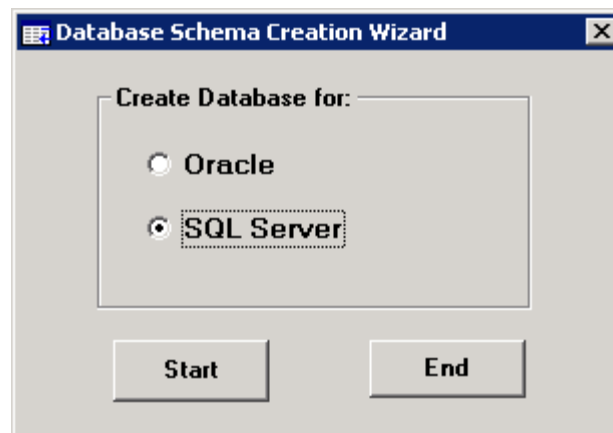
2.  Select **SQL Server** and click **Start**. This will install EDM on either a SQL Server 2005 or SQL Server 2005 Express database platform.

    *The EDM SQL Server Database Creation Wizard* message is displayed.
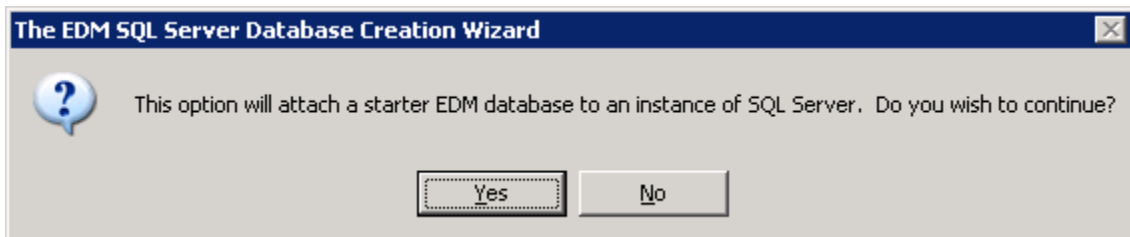


3.  Click **Yes** to continue. Clicking **No** will cancel the operation.

    The *Select database target directory* dialog appears.
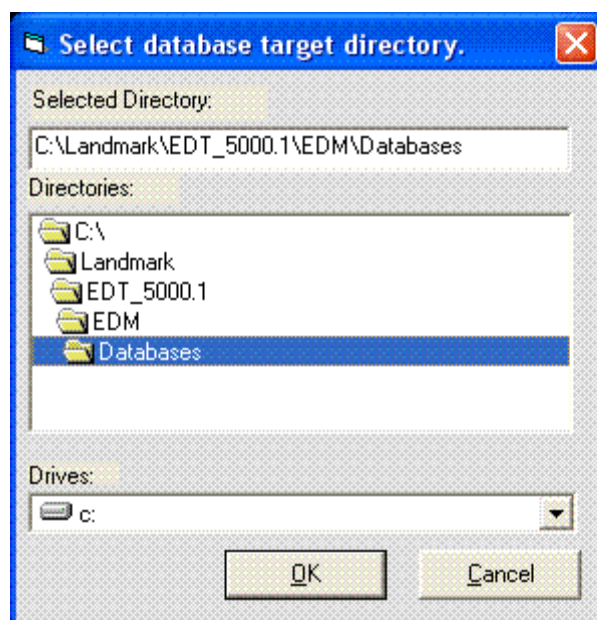


4.  Select the directory where the database will be copied. For example, C:\Landmark\EDT_5000.1\EDM\Databases.

    | **Mapped Drive** |
    | --- |
    | If the Database Creation is being run on a server, the server's drive must be mapped prior to executing this procedure. |

5.  Click **OK**.

The *Enter Database Name* dialog appears.
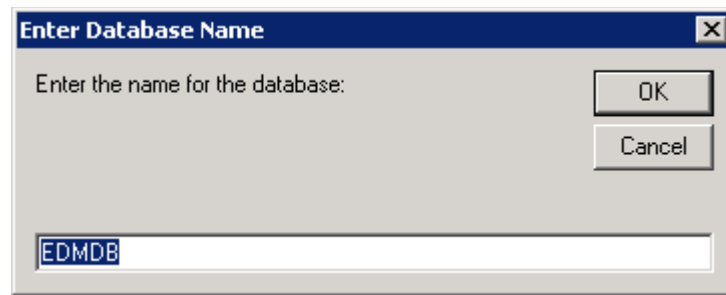


6.  Enter the database name and click **OK**.

    The *Enter SA Password* dialog appears.
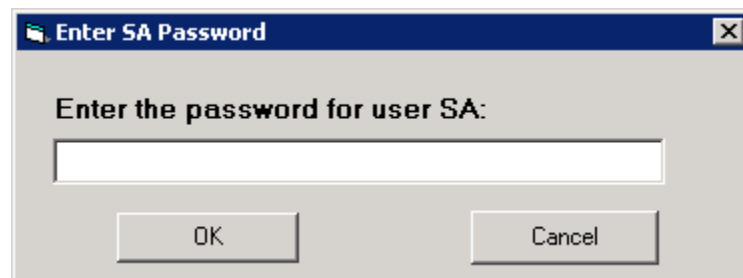


7.  Enter the System Administrator password and click **OK**. By default the password for the *sa* account is *Landmark1*.

    Once the Database has been created and attached, the following message displays.
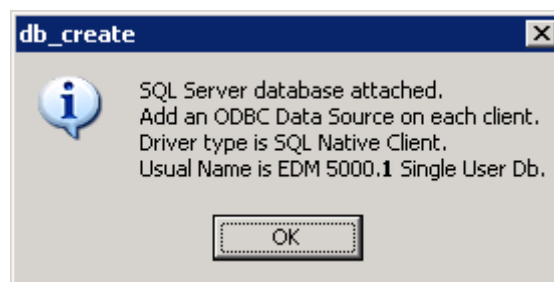


8.  Click **OK**.

9.  Click **End** to close the *Database Schema Creation Wizard*.

### Installing Additional or Replacing EDM SQL Server Databases

The SQL Server Utility attaches database files (.MDF and .LDF) to SQL Server and creates an ODBC connection to the database.

From the Windows Start menu launch the SQL Server Utility.

**Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > SQL Server Utility**

The *Landmark EDM SQL Server Utility* window appears.
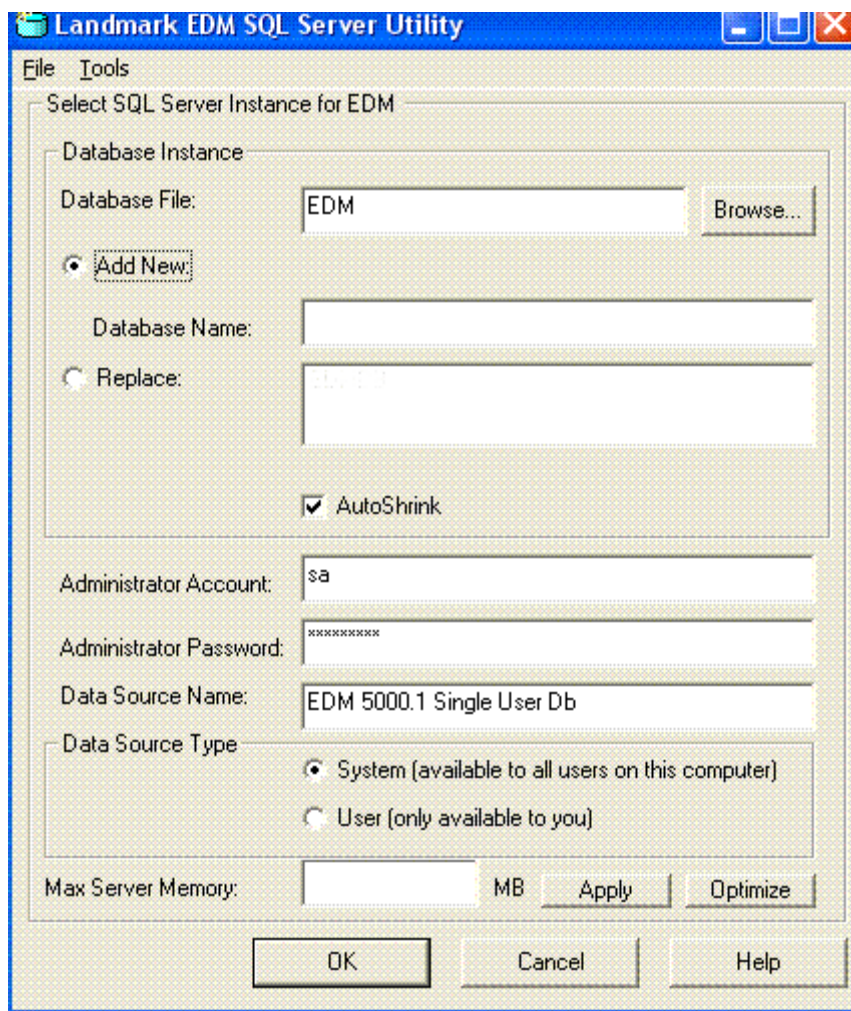


1.  Click the **Browse** button to navigate to the location of the database files (e.g., EDM5000.mdf)

2.  To add a new database instance, select the **Add New** option and enter the name of the new database instance in the field provided.

Alternatively, to replace the SQL Server database instance, select the **Replace** option and select the database instance to be replaced from the list provided. A clean EDM database will overwrite the existing EDM instance.

3.  Activate the **AutoShrink** checkbox to enable the autoshrink setting. This setting will reduce the database file size by removing unused space periodically. There will be no requirement to manually compact the database.

4.  If the default administrator account (sa) created when SQL Server is initially installed has been removed, enter the appropriate **Administrator Account** name and **Administrator Password**.

---

**Using the Default Account**

The default administrator account (i.e., 'sa') should NOT be used to enter data or run applications besides the SQL Server Utility, and when configuring security in the EDM Administration Utility.

---

5.  Enter the new **Data Source Name**.

---

**Overwriting ODBC Connections**

Verify that the **Data Source Name** does not currently exist. Selecting an existing Data Source Name and confirming the overwrite, will replace the ODBC connection to the current database.

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6.  Enter the Maximum Server Memory.

7.  Click **OK**.

    Progress of the database creation displays, and then a message appears when the new instance of the EDM database has been created.

    

8.  Click **OK**.

# Create EDM 5000.1 on Oracle

This chapter describes the necessary preparations, and then outlines the procedure to create a new 5000.1 EDM database on Oracle 10g. These instructions are not intended for users that are already using a previous version of the EDM Drilling Database.

For information on migrating pre-EDM data see the EDM *Drilling / Data Migration Guide.* This document is available in .PDF format and can be accessed from the Windows Start Menu once the Drilling & Completions installation is complete (e.g., **Start > Programs > Landmark Engineer's Desktop 5000.1 > Documentation > User Guides**).

For an enterprise environment, Landmark certifies EDM on Oracle. An enterprise database cannot be shipped as a file, therefore Landmark provides SQL scripts and instructions to enable an Oracle DBA to create a new EDM database on Oracle.

**During 5000.1 Install, DO NOT Install SQL Server Express if you intend to use an Oracle Database**

A stand-alone installation of EDM includes its own Microsoft SQL Server 2005 Express database. Landmark ships the SQL Server 2005 Express database as a file, and the EDM Installation installs the database.

If you desire to **not** install SQL Server, click on the arrow next to SQL Express Administration, and then select **Remove Feature** from the drop-down list, A red X should appear next to SQL Express Administration as seen below.
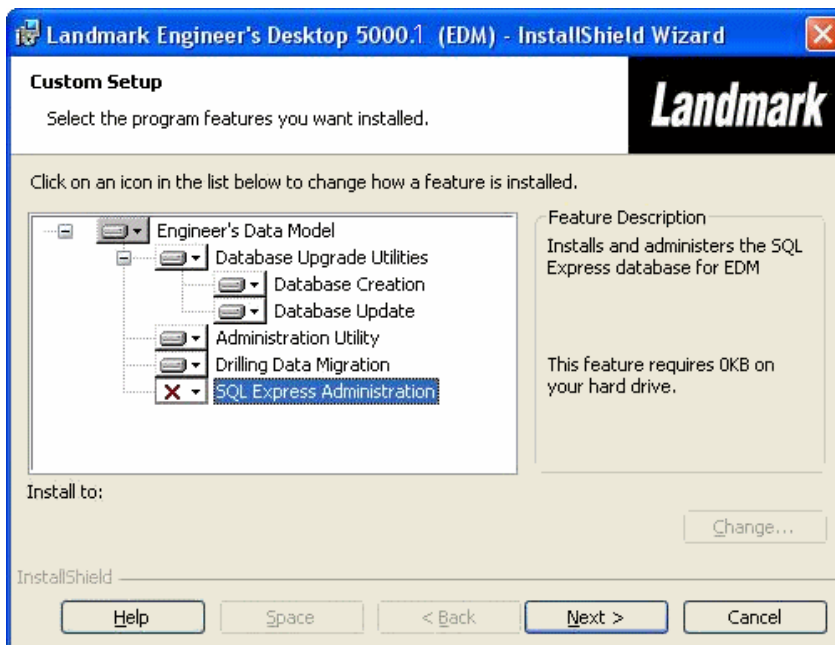


### Java Functions

The EDM 5000.1installation includes some Java Functions that are stored in the database. As a result, the Oracle JServer Components must be installed with the Oracle Software on the Server. Open the Oracle Universal Installer on the Oracle Server and use the Installed Products listing to verify that this component is installed (e.g., **Oracle Universal Installer > Oracle 10g Enterprise Addition > Oracle 10g Server > Oracle JServer**). If this component is needed, use the Oracle Universal Installer to add it. In addition, the Oracle JServer Component must be included in the database. If the Jserver Component exists in the Oracle Software Installation, then a Typical Database can be created and the component will be included. If a Custom database is created, then the JServer Component should be selected during the database

creation. The Oracle Database Configuration Assistant can be used to add the Oracle Jserver Component to an existing Custom Database.

If the JServer component is missing from the Oracle Software and/or the database, an error may occur.

## Oracle ODBC

Landmark's Drilling Applications use the Open Database Connectivity (ODBC) standard as a common interface between their code and their data stored in the EDM database. A single module interfaces to all Relational Database Management Systems (RDBMS), with ODBC handling the differences. EDM Engineering applications are shipped with the Oracle JDBC drivers which interface to ODBC.

Appropriate ODBC drivers must be installed and tested on the client workstation before installing the EDM Engineering applications.

In most cases, network ODBC drivers will require previous installation of supporting client/server libraries—this in turn may require previous installation of supporting network software. Corresponding components may also be required on the server.

For example, a typical Oracle installation will require:

1.    A SQL*Net listener on the server;

2.    TCP/IP or other transport protocols on the server;

3.    An ODBC driver on the client;

4.    Oracle's SQL*Net and TCP Adapter or another transport protocol adapter on the client;

5.    TCP/IP or some other network transport software on the client.

This will require coordination of several software vendors, and often requires expert installation.

EDM is certified against Oracle using the ODBC drivers supplied by Oracle® Corporation only. See the *EDT 5000.1 Drilling Summary Level Release Notes* for details.

## RDBMS Configuration

Engineer's Desktop applications have been certified for Oracle 10g (including ODBC drivers). Earlier versions of Oracle will not work for the Engineer's Desktop 5000.1 release.

### Oracle

#### Separate Tables & Indexes (Performance)

A common strategy to reduce disk contention is to put tables, indexes, control files, system table space, and rollback segments on separate spindles.

Some sites use other strategies such as disk striping and disk mirroring. Consult the Oracle documentation for more complete information on performance strategies.

The DBA is free to manage these performance issues, as long as the following conditions are met:

1. The Engineer's Desktop applications data schema must be left as supplied (i.e. table names, column names, column data types, and column order cannot be changed).

2. All Engineer's Desktop applications user(s) must have access to all Tables through the supplied Views.

#### INIT.ORA (Configuration File)

EDM does not require any non-standard configuration options and should run correctly under most configurations.

Some parts of the INIT.ORA file from a Landmark test database instance are provided below, not as an ideal model but simply as a reference to something that has been tested and known to work satisfactorily.

```
############################################################

        *.audit_file_dest='C:\oracle\product\10.2.0\admin\
        UCTEST01\adump'

        *.background_dump_dest='C:\oracle\product\10.2.0\a
        dmin\UCTEST01\bdump'
```

```
*.compatible='10.2.0.3.0'

*.control_files='C:\oracle\product\10.2.0\oradata\
UCTEST01\CONTROL01.CTL','C:\oracle\product\10.2.0\
oradata\UCTEST01\CONTROL02.CTL','C:\oracle\product
\10.2.0\oradata\UCTEST01\CONTROL03.CTL'

*.core_dump_dest='C:\oracle\product\10.2.0\admin\U
CTEST01\cdump'

*.db_block_size=8192

*.db_cache_size=25165824

*.db_domain=''

*.db_file_multiblock_read_count=32

*.db_name='UCTEST01'

*.dispatchers='(PROTOCOL=TCP)
(SERVICE=UCTEST01XDB)'

*.java_pool_size=33554432

*.job_queue_processes=10

*.large_pool_size=8388608

*.open_cursors=300

*.pga_aggregate_target=16777216

*.processes=150

*.remote_login_passwordfile='EXCLUSIVE'

*.sga_target=167772160

*.shared_pool_size=50331648

*.star_transformation_enabled='TRUE'

*.undo_management='AUTO'

*.undo_tablespace='UNDOTBS1'

*.user_dump_dest='C:\oracle\product\10.2.0\admin\U
CTEST01\udump'
```

##################################################

### Notes on init.ora

Many of the values above reflect Oracle's standard "large" settings. Some settings should probably be higher than the example indicates:

- SHARED_POOL_SIZE: Some sites have used much larger values (111M).

- LOG_BUFFER: This will be set according to each site's own policies. Some sites do not use logs.

- PROCESSES: set to approximately 3 times the number of expected concurrent users.

- DML_LOCKS: set to approximately 5 times the number of expected concurrent users.

- MAX_ENABLED_ROLES: this will depend on each customer's security and administration policies.

- SMALL_TABLE_THRESHOLD: the default of 4 should be adequate.

- OPEN_CURSORS: Landmark recommends a value of 300.

If the resulting SGA size causes excessive paging and swapping, the DBA could then reduce some of the buffering parameters.

- DB_BLOCK_BUFFER:  Some sites have had problems when this number was too small.

### *Rollback Segments*

**Size:** Landmark recommends a minimum rollback segment size of 2 megabytes (each). All rollback segments on-line should be at least 2 megabytes.

**Number:** Use the Oracle recommendations, count one concurrent user as one concurrent transaction. If you expect 16 users or less, use 4 rollback segments; 32 or less, 8 segments; 200 or less, users/4; over 200 users, 50 segments.

**Exception:** One of EDM's features is its XML data transfer file system. XML imports are checked and committed frequently, so they do not require large rollback segments.

### *Temporary Tablespace*

Landmark recommends that you maintain at least 50 megabytes free in your temporary tablespace. If you have more than 20 concurrent users, allow 2.5 megabytes per user.

---

**Note:**

If a database exists, there may be a shared temporary tablespace suitable for use by the EDM user.

---

# *Required Tools and Installation*

## Oracle Preparation

The Database Administrator must perform the following steps using a privileged Oracle logon as the procedure requires enhanced DBA privileges.

## Oracle NLS_Lang Variable

The Oracle NLS_Lang variable must be set to a correct 8 bit character set on the computer where the createdb.sql script will be run.

---

**7 bit Character Set will create Errors**

If the NLS_Lang setting is set equal to a 7 bit character set such as AMERICAN_AMERICA.US7ASCII, then errors will result in the EDMMetadata2.log and TOWMetadata.log. Also, invalid characters will load in place of the special characters (e.g. degree symbol in the units).

---

The NLS_LANG variable is set in the Windows registry on a Windows computer in the registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\HOME0
```

or the NLS_Lang is set as an environment variable on UNIX. The NLS_LANG variable should be set to use an 8 bit character set. Example: NLS_Lang = AMERICAN_AMERICA.WE8MSWIN1252.

Always check the EDMMetadata2 and TOWMetadata.logs after database creation. If errors exist, or if special characters are invalid in the units:

- Recreate the database with the correct specifications (Oracle version, character sets, etc.), and

- Verify the NLS_Lang variable is set to a valid setting before running the scripts to create the database.

## Database Creation

### *About Database Creation*

An empty database needs to be created using the Oracle Database Configuration Assistant.

The EDM Database Creation tool allows the user to create a 5000.1 EDM Oracle database. The master script is created through the EDM Database Creation utility, found in the **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > EDM Database Creation** menu. When executed, the new EDM database will be created and the required tables populated with startup data and metadata.

### Tablespace Creation

Tablespaces are created from the script, EDMspc.sql located in:

<install directory>\EDM\Oracle\tablespaces.

---

**EDMSPC.SQL Script**

The EDMSPC.SQL script should be edited to create the tablespaces in the desired directories. For more information on this script, contact Landmark Support.

---

### Schema Creation

The database schema must be created using the EDM Database Creation tool. This tool also creates default edm users, grants, and synonyms.

### Locating and Installing the Database Creation Tool

To install the EDM database creation tool, choose *Database Creation* from the Selection Components list during the installation process. This will place the EDM Database Creation tool shortcut in the Windows Start menu (e.g., **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > EDM Database Creation**).

## *Creation Procedures*

The following procedure should be used by clients that DO NOT have an EDM database and wish to create one on Oracle.

This procedure assumes the Oracle server has a Windows operating system, and that the folder <install directory>\EDM\Oracle and its sub-folders have been copied onto the Oracle server. It also assumes that all tasks will be run on the Oracle server.

If the Oracle server has a Unix operating system, it will be necessary to use an FTP tool and an ASCII transfer mode to copy the folder <install directory>\EDM\Oracle and its sub-folders to the Oracle Server.

---

**DatabaseStoredFunctions.class file must be transferred using Binary transfer mode**

While this will transfer all the script files correctly, the DatabaseStoredFunctions.class file in the <install directory>\EDM\Oracle\EDMprocedures folder will need to be transferred separately using Binary transfer mode.

---

**Creating an Oracle Database on UNIX**

Be sure to copy scripts to UNIX in Binary mode and not in text mode. Copying in text mode may cause special characters to be stored with the wrong value in the database when database creation scripts are executed. These special characters will display as "?" on different screens in the Engineer's Desktop applications.

Landmark highly recommends running the database creation scripts or a database upgrade from a Windows PC that has the correct version of EDM installed on it and that point to the Oracle database on Unix.

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### Creating the Oracle EDM Database

#### *Empty Database Creation*

An empty database needs to be created using the Oracle Database Configuration Assistant.

The following sequence of steps enables an EDM database to be created in the supported Oracle 10g. These steps should be performed by a knowledgeable Oracle DBA; however, if one is not available, the steps will still work.

1. Launch Database Configuration Assistant. The *Welcome* screen appears.
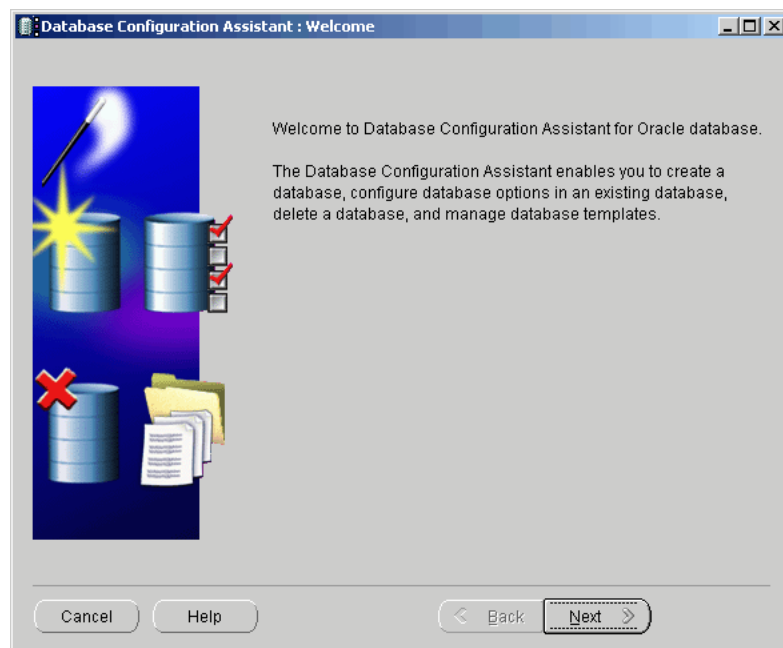
2.    Click **Next**. The *Step 1 of 12: Operations* screen appears.
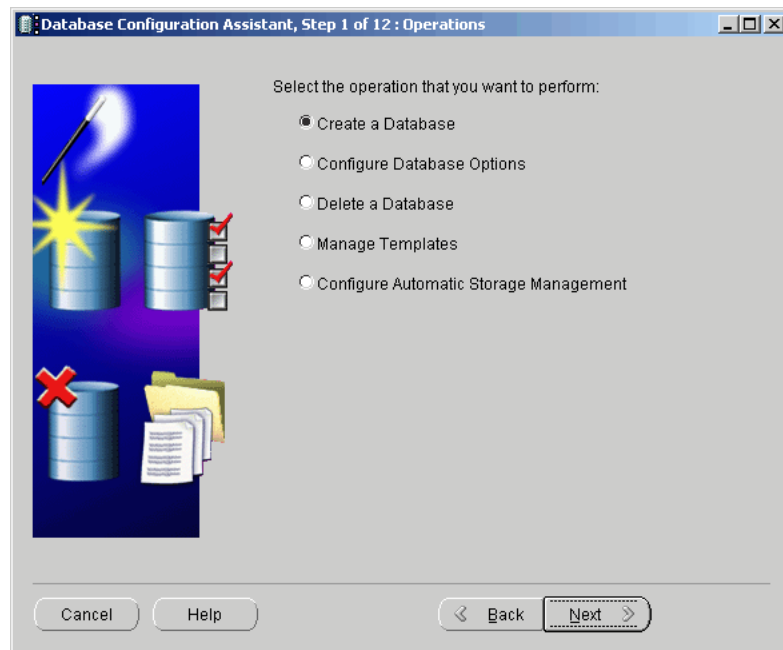


3.    Select **Create a Database** and click **Next**. The *Step 2 of 12: Database Templates* screen appears.
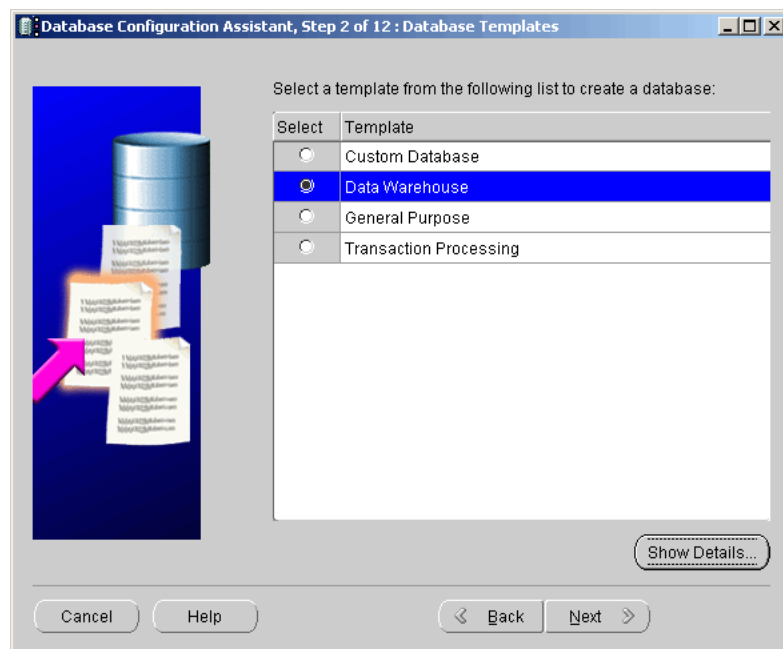
4.  Select **Data Warehouse**, click **Next**.  The *Step 3 of 12 Database Identification* screen appears.



5.  Enter the **Global Database Name** and the **SID** and click **Next**. The *Step 4 of 12: Management Options* screen appears.



6.  Accept the defaults **Configure the Database with Enterprise Manager** and **Use Database Control for Database**

**Management**. Specify email notification and/or backup options as needed, and then click **Next**. The *Step 5 of 12: Database Credentials* screen appears.



7.   Select **Use the Same Password for All Accounts** and enter a password (and confirm) for all accounts—or— select **Use Different Passwords** and specify a password for each account and then click **Next**. The *Step 6 of 12: Storage Options* screen appears.

8. Select **File System**, and then click **Next**. The *Step 7 of 12: Database File Locations* screen appears.
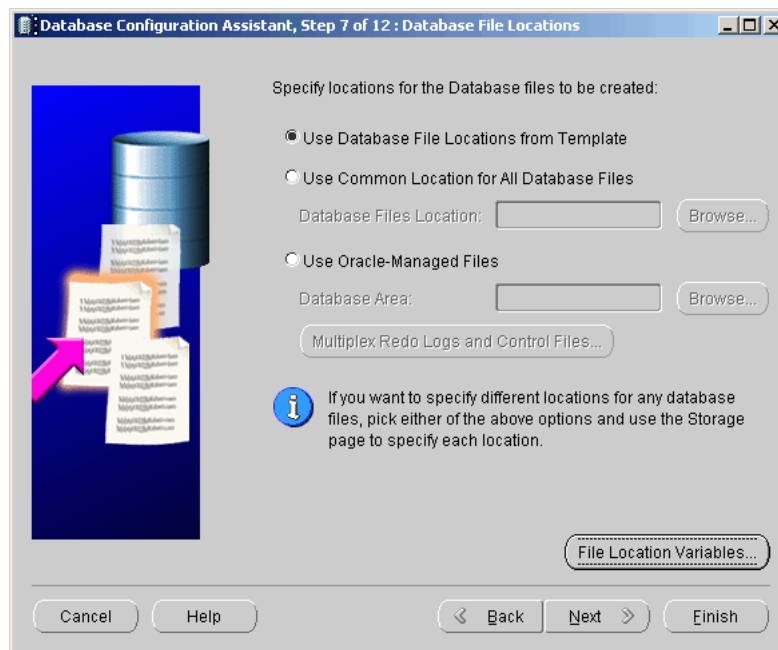


9. Select **Use Database File Locations from Template**, and then click **Next**. The *Step 8 of 12: Recovery Configuration* screen appears.
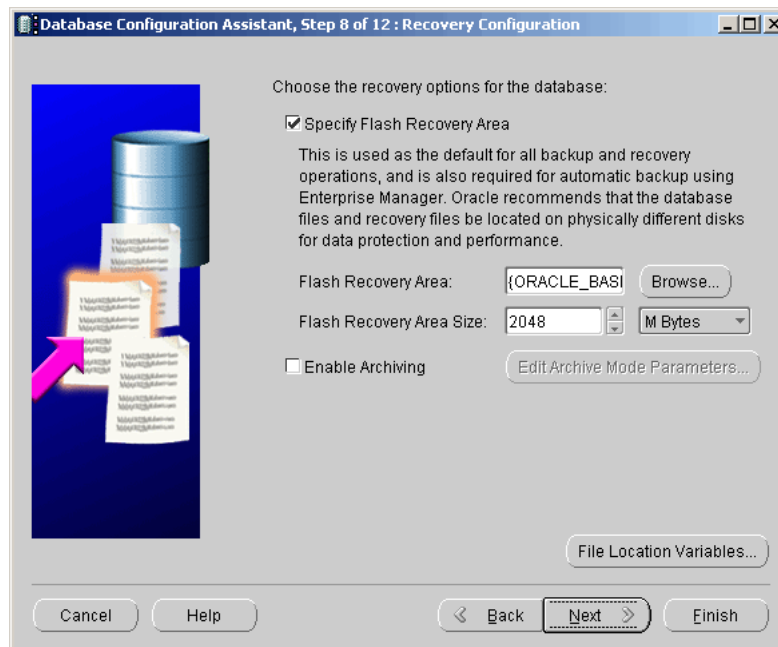
10. Select **Specify Flash Recovery Area**. Accept the default directory and size, and then click Next. The *Step 9 of 12: Database Content* screen appears.
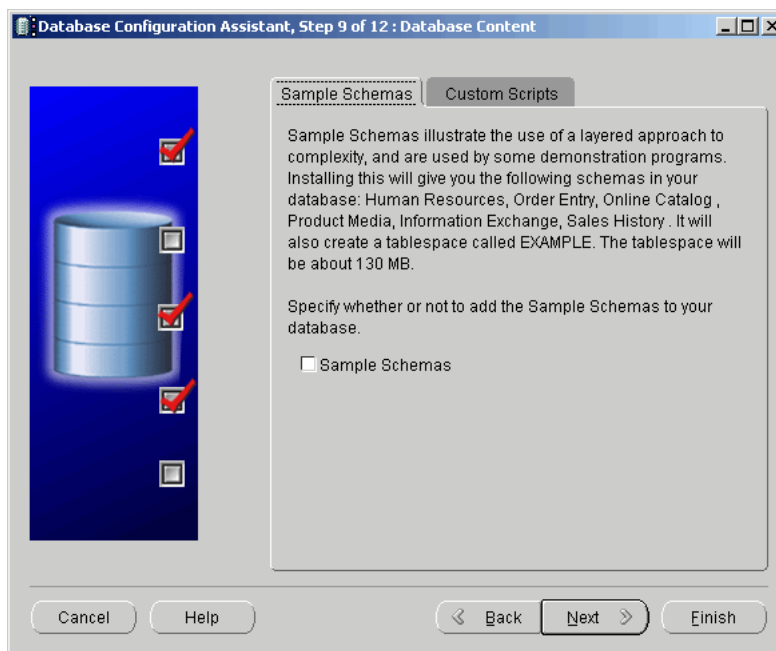


11. Accept the defaults in the Sample Schemas and Custom Scripts tabs, and then click **Next**. The *Step 10 of 12: Initialization Parameters* screen appears.
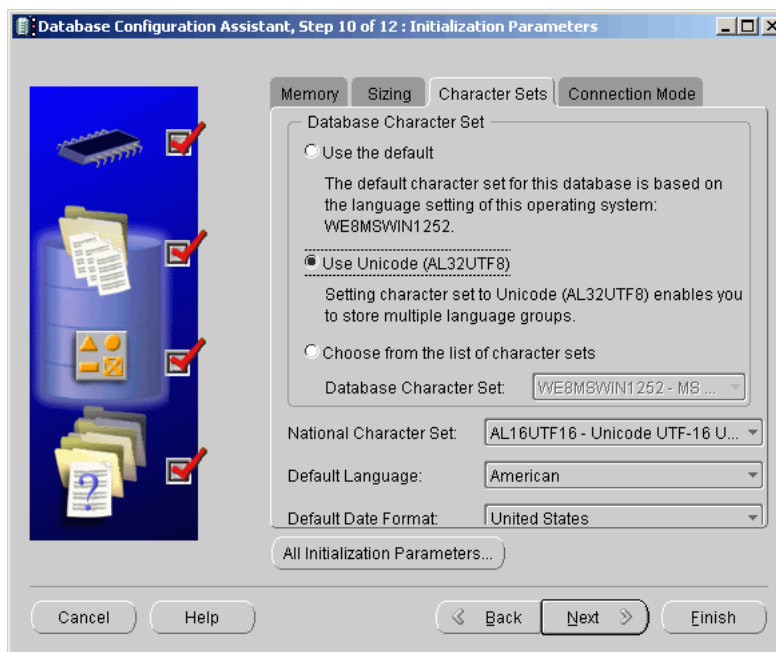
12. In the Character Sets tab - Database Character Set select the 8-bit character **Use Unicode (AL32UTF8)** set. Otherwise, select WE8MSWIN1252. Landmark does not support 7-bit character sets for EDM.

13. In the Character Sets tab - National Character Set, select **AL16UTF16** as this is the Landmark certified configuration

14. In the Connection Mode tab, select **Shared Server Mode**.
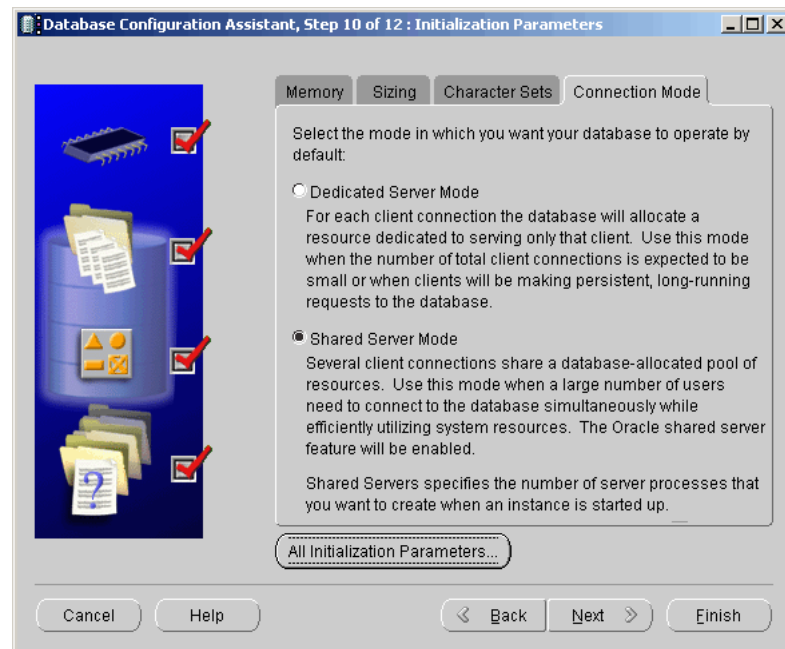
15. Click **Next**. The *Step 11 of 12: Database Storage* screen appears.
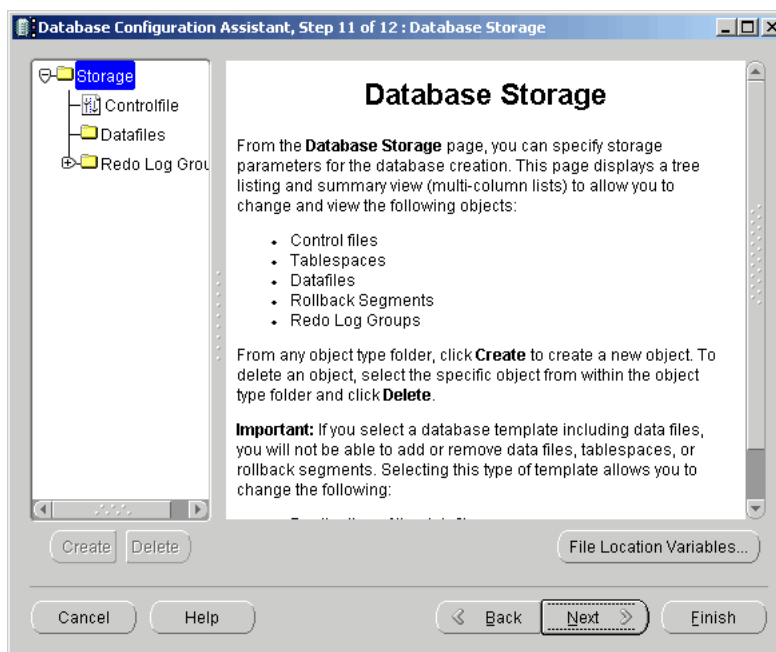


16. Leave as default and click **Next**. The *Step 12 of 12: Creation Options* screen appears.
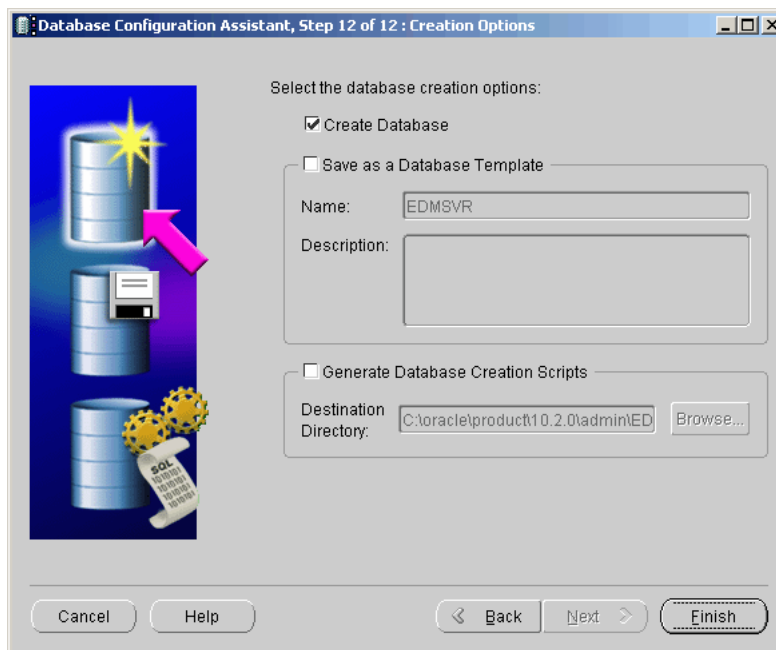


17. Click **Finish**.

The *Summary* dialog appears and displays Options and Initialization Parameters for the Oracle EDM database.

18. Click **OK**.

    The Database Creation Assistant creates the new EDM Oracle database instance. A Progress dialog appears showing each step of the process.

19. Click **Exit** to complete the process.


### *Logon to Oracle using SQL Plus*

There are two ways to logon to Oracle. The Oracle logon can be reached by starting SQL*Plus from a DOS prompt or by using the Window Start menu to navigate to SQL*Plus. Either method can be used.


### Logon from a DOS Prompt

Open a DOS prompt by following the menu path **Start > Run**. The Run window opens. Enter **cmd** in the **Open** field. A DOS window appears.
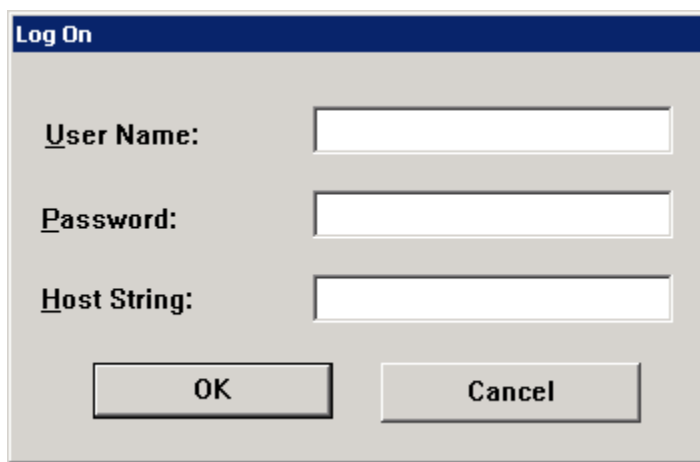
Navigate to the location of the extracted SQL scripts.

For example:

```
C:

cd \Landmark\EDT_5000.1\EDM\Oracle\Scripts
```

Enter **sqlplusw** to open Oracle SQL*Plus.

The *Log On* window displays.

Enter the **User Name**, **Password**, and **Host String**. For example, *edm*, *Landmark1*, and the name of the database instance.

---

**Note:**

EDM is only used as an example; '*edm*' is not necessary in the schema owner name.

---

The SQL*Plus window will open.

## *Tablespace Creation*

---

**Tablespace Size**

Landmark recommends a minimum 1GB tablespace size. This is just a recommendation. Database Administrators should take into consideration the number of Wells that will be located within the database, when calculating the tablespace size.

---

1. Verify that the tablespaces will be created in the correct directories before running the scripts.

---

The EDMSPC.SQL script should be edited to create the tablespaces in the desired directories.

The tablespace names EDMDATA1 to 4 and EDMIDX1 to 4 have been used in the create table statements for each EDM database table. Landmark recommends that theses tablespace names NOT be changed unless the DBA will also apply their changes consistently throughout all creation scripts.

For more information on this script, contact Landmark Support.

---

2. Launch SQL Plus, connect as internal, and run Edmspc.sql to create the EDM tablespaces. For example:

```
SQL>start
C:\Landmark\EDT_5000.1\EDM\Oracle\tablespaces\edms
pc.sql;
```

The tablespace file will create the necessary tablespaces and grant the correct permissions.

### *Schema Creation*

The following steps 1 through 10 must be carried out on a Windows machine, even if the end result will be run on a Unix machine.

1.  Follow the Windows menu path:

    **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > EDM Database Creation**.

    The *Database Schema Creation Wizard* displays.
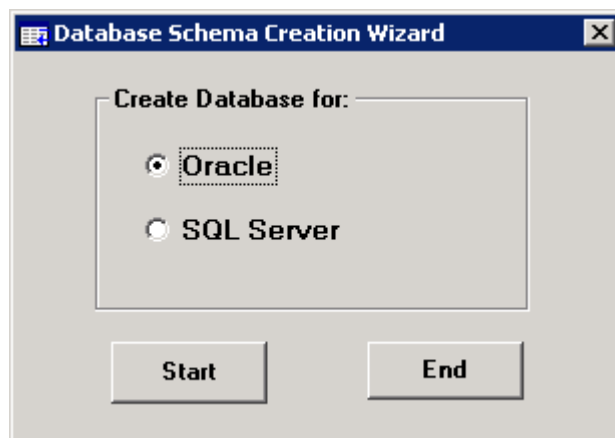
    

2.  Select the **Oracle** option and click **Start**.

    *The EDM Oracle Database Creation Wizard* message displays.

    

3.  From Windows Explorer, create a *dbcreate* folder in:

    <install directory>\EDM\Oracle

The *Select database target directory* dialog displays.



---
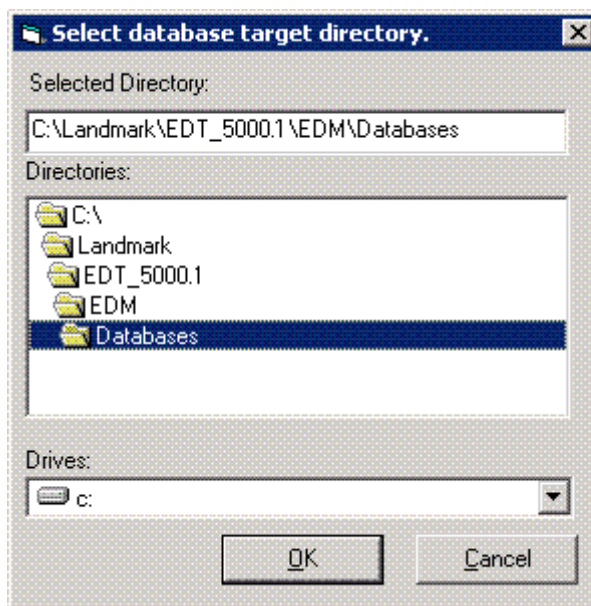
**Log Files**

All log files will be created in the directory specified in the *Select database target directory* dialog.

In cases where a space occurs in the directory path, the log files are created in the root of the named path. For example, using the directory 'C:\Program Files\Landmark\EDT_5000.1\EDM\Oracle\dbcreate' will cause the log files to be placed in the C:\ directory, because of the space in 'program files'.

To prevent this, once the dbcreate.sql file has been created, change the spool directory in the file to a temporary log file directory. For example:

```
spool C:\temp\oracle_scripts\TOWcsTables.log.
```

---

4. Select a directory for the master script createdb.sql file to be created in.

5. Click **OK**.

The *Database Creation Wizard* message displays.
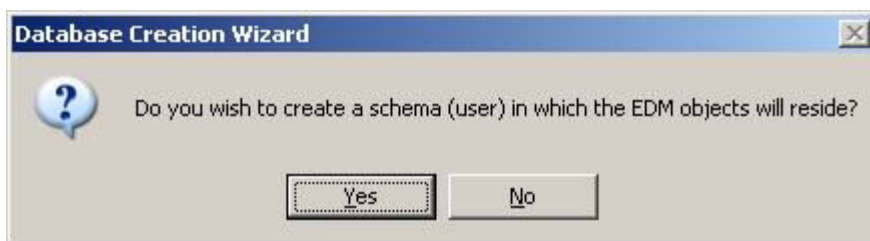


6.   Click **Yes** to create the schema.

The *Enter new user name* dialog displays.



7.   Enter the name of the database user (e.g., *edmadmin*), and click **OK**.

The *db_create* message displays.
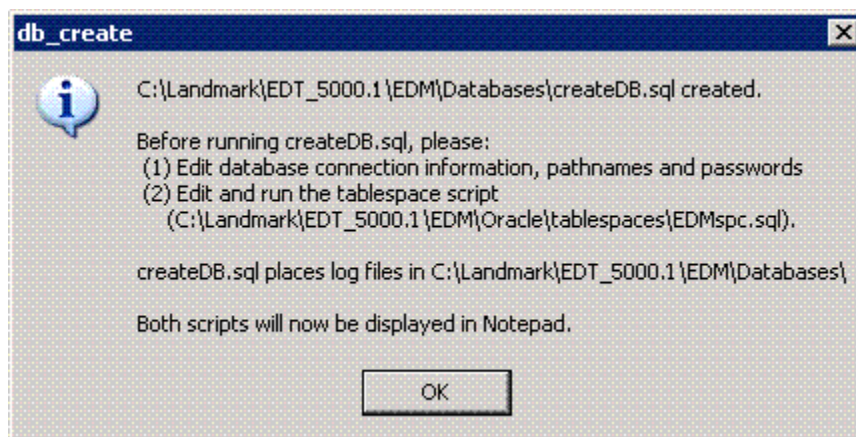
The createDB.sql file is created in the target directory. (This script will create the database objects required to run EDM.)

---

**CreateDB.sql User**

The user defined in the createDB.sql file becomes the schema owner, and is granted full rights.

---

8.   Click **OK**.

9.   Click **End** on the *Database Schema Creation Wizard* dialog.

10.  Edit the **createDB.sql** file if needed (using Notepad) to change database connection information, path names, and passwords. Note that if createDB.sql exists in the target directory, createDB1.sql is created instead—filename increments by one each time.

---

**Running the Script from Locations Other than the Server/ Multiple Oracle databases**

• If the script is being run from a location other than the server, or if there are multiple Oracle databases on one machine, the connection string must be changed. The script should include the instance name if it is not being run from the server, and should take the format username/ password@instancename.

For example:

Connect *edmadmin/Landmark1* should be changed using the recommended format:
connect *username/password@instancename* (i.e., *edmadmin/ Landmark1@EDMSVR*)

Connect *PK/landmark* should be changed using the recommended format:
connect *username/password@instancename* (i.e., *PK\Landmark1@EDMSVR)*

• In addition, you may need to upgrade the location of log files within the script, especially if your path to the dbcreate folder includes a long file path such as spaces in path (see "Log Files" on page 33). To manually change the location of log files, edit the script with Notepad. Log files exist at each instance in the script where something is created.

---

---

**DatabaseStoredFunctions Script**

If the EDM Database Creation utility is run on a *client* machine, the class file must be copied manually to the server and the "create directory" statement edited in the master script.

Copy the *DatabaseStoredFunctions.class* to a directory <u>on the Oracle server</u>, and replace the path in the 'create or replace directory' statement in dbcreate.sql with the new location of the class file on the Oracle server.

For example, if the Oracle server runs a Windows operating system, the class file might be copied to the location c:\temp on the server. In this case, no change is needed as the standard script contains:

```
create or replace directory runtime_classes as
'C:\temp\';
```

If the Oracle server runs a Unix-based operating system, the line might be changed to something like:

```
create or replace directory runtime_classes as '/usr/
tmp';
```

---

**Oracle on a Unix Machine**

If the end result will be run on a Unix machine, the createdb.sql file which is to be run in the next step must be edited to ensure that the correct Unix folder names have been used in all places within the createdb.sql file, including the folders for the log files and for the Unix location of the DatabaseStoredFunctions.class file.

The other edits suggested above must also need to be undertaken.

The createDB.sql file will then have to be transferred to the Unix machine using an ftp tool and ASCII transfer mode before step 12 is carried out.

---

11. Edit the **EDMspc.sql** file if needed (using Notepad) to edit tablespace information. This file is located in the folder:

     \Oracle\tablespaces

12. After editing createDB.sql and EDMspc.sql as needed, run
**createDB.sql** in SQL Plus. For example:

```
SQL>start
C:\Landmark\EDT_5000.1\EDM\Oracle\dbcreate\createDB.s
ql;
```

When the process is complete, review the log files for errors. Search for files that have the string "Error" in the text to determine if any unexpected errors have occurred.

The log files are normally created in the specified folder where the createDB.sql is located.

## Configure the ODBC Data Source

Configuring the ODBC Data Source for the EDM instance must be completed on the client machine. Oracle EDM Data Source may be configured by the system administrator or implementation team as required. This allows the user to share EDM engineering data with different sets of users or asset teams.

### ODBC Data Source for Oracle

1. The first time an EDM data source is to be configured on Oracle, ODBC must be configured with a location using Oracle Client's Net Configuration Assistant or a similar utility.

2.  Open the *ODBC Data Source Administrator* from the Control Panel.
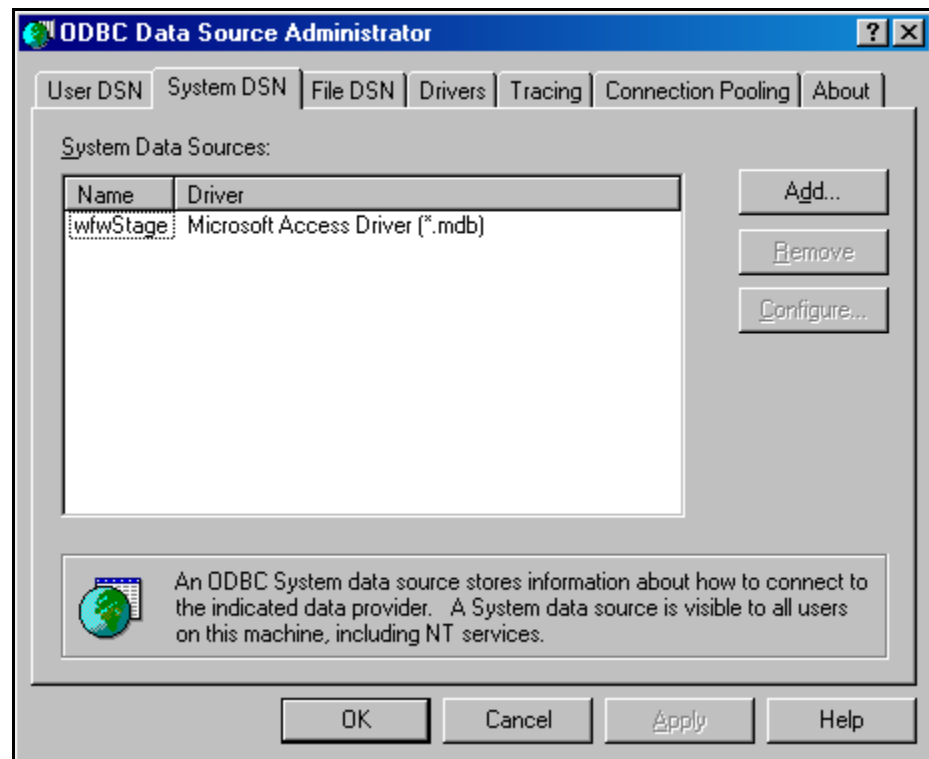


3.  Click **Add**.

The *Create New Data Source* window displays.
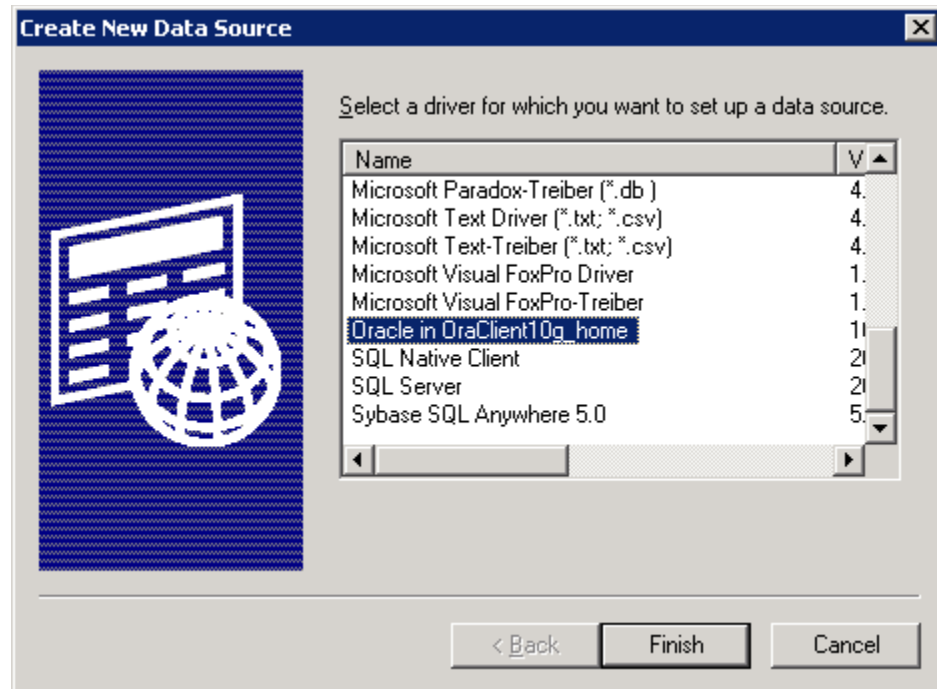


4.    Select the driver used to create the data source and click **Finish**.

The *Oracle ODBC Driver Configuration* window displays.
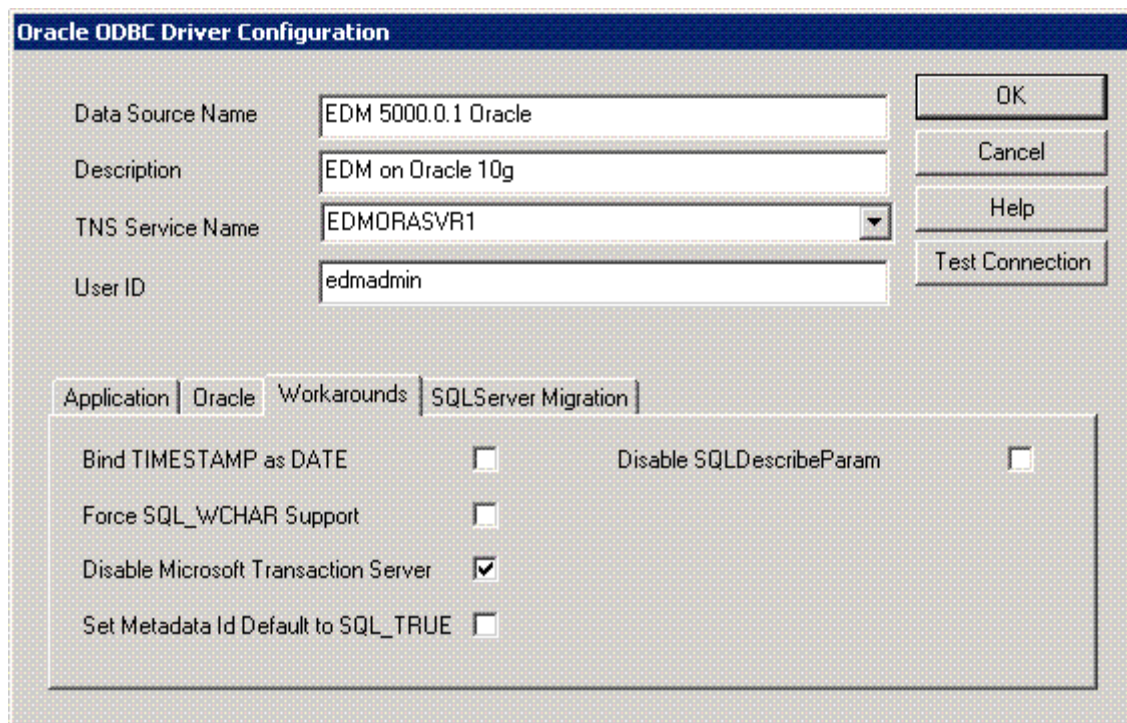
5. Enter the **Data Source Name**, **Description**, **TNS Service Name**, and **User ID**. All settings should be left in their default position unless specified by your Database Administrator.

6. Click **Test Connection**.

   The *Oracle ODBC Driver Connect* window appears.
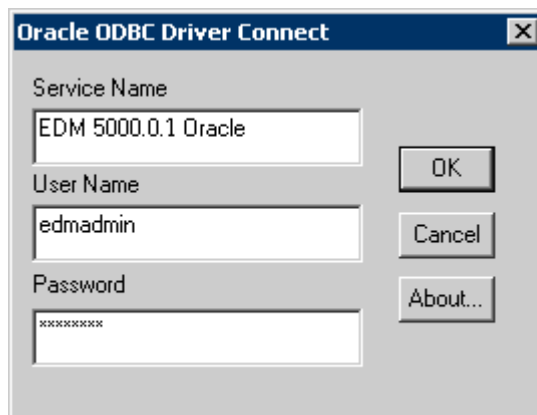


7. Enter the **Service Name**, **User Name**, and **Password**.

8. Click **OK**.

   The connection to the new data source will be tested. If successful, the following dialog box appears.
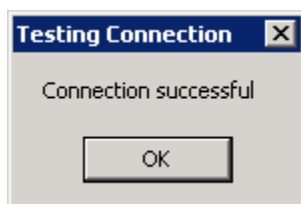


9. Click **OK**.

   The *ODBC Data Source Administrator* window reappears with the new data source listed.

10. Click **OK**

The EDM Data Source has been created on Oracle.

### Import Site Config Files

Prior to importing Site Config Files, a ODBC Data Source Name must be configured. For information on creating an ODBC Data Source Name, see "Configure the ODBC Data Source" on page 37.

Landmark configurations (site configuration files) are contained within the EDM database and installed with the Microsoft SQL Server 2005 Express database. These files contain default and customized configurations for EDM Output Reports, OpenWells Preview Panes, OpenWells Data Entry Forms, OpenWells Shortcut Bars, and Administration Utility input screens.

For an Oracle database creation, these configuration files must be imported using the EDM Administration utility. The files are located in the following folder once the installation is complete:

```
<install directory>\EDM\Site Configuration Files.
```

1.  Launch the EDM Administration utility.

2.  Create a database connection for the upgraded database (i.e., use the **File > New > Data Source** command).

3.  Login to the installed database as *edm/Landmark1* (user name/ password).

4.  Select the Database icon in the hierarchy for the opened EDM Data Source.

5.  Follow the menu path, **Tools > Import and Export**.

6.  Select **Import configuration data from local directory**.

7.  Click **Next**.

8.  Use the **Browse** button to navigate to the top level directory (i.e., `<install directory>\EDM\Site Configuration Files`) and click **OK**.

9.  Leave the path to the XML file descriptor blank. This will cause the default files_descriptor.xml file to be used. The XML file descriptor (files_descriptor.xml) populates specific columns in the table that would normally not be populated.

10. Activate the checkbox to overwrite existing files in the EDM database.

11. Click **Finish**.

    Once the import is complete, the *ImportResults.log* file appears. This file summarizes the results of the import. The beginning of the file states how many Site Configuration files are to be imported (e.g., 659 files). The end of the file states how many files were imported. These two numbers should be the same. If there is a discrepancy between these numbers, contact Landmark Support.

    The *ImportResults.log* file is located in the <EDM install directory>\Common Files folder.

12. Close and then re-open the EDM Administration utility to view the newly imported files, which are now visible.

### Run Data Migration

Run the Data Migration to migrate legacy data from older application databases (e.g., DIMS, COMPASS, WELLPLAN). Information on the data migration process can be found in the *EDM_Drilling_DataMigration.pdf*. This document is located through Windows **Start > Programs > Landmark Engineer's Desktop 5000.1 > Documentation > User Guides**.

## *Troubleshooting Oracle on EDM*

### Running The Login Test

The Login Test can be used when debugging connection problems. To perform the Login Test:

1. Open a command prompt.

2. Change to the "<install folder>\common files\" directory.

3. Execute: RunLoginTest.bat.

    An OpenWells login dialog will appear.

4. Attempt to login to the application.

The batch file and code activates additional debugging information, which is sent to the command prompt. This information should enable the EDM Administrator to determine the nature of the connection problem.

## Unit Symbols Display Incorrectly

Superscripts and symbols occur in several EDM unit measure labels (there are 128 labels affected).

In a database built with a 7-bit character set, these labels cannot be correctly stored (in the database) or displayed (on the screen). Specifically, this is known to occur in an Oracle database which has been built with the US7ASCII character set.  As an example of the effect, users will see ¿C instead of °C.

Landmark recommends installing EDM on a database using an 8-bit character set or a Unicode character set (e.g. WE8MSWIN1252, AL32UTF8). If using a 7-bit character set is unavoidable, contact Landmark for an upgrade to convert the labels.

# *Database Upgrade*

## Overview

Engineer's Desktop 5000.1 is a new product. SQL Server/MSDE or Oracle versions of Release 2003.14 or higher of the Engineer's Data Model (EDM) can be upgraded to Release 5000.1 using the new Multi-Version Database Upgrade Utility (EDMPatchDB.exe). The Upgrade utility runs scripts that upgrade the old database tables and create new database tables, while keeping the integrity of the existing data. The utility will upgrade EDM databases 2003.14 or higher to 5000.1.

If you are currently using an EDM database version 2003.14 or higher, run the Multi-Version Upgrade Utility to upgrade your EDM database to the 5000.1 version. Once the database has been upgraded to 5000.1, you will no longer be able to access it using the earlier EDT applications.

---

**Important:**

• EDT 5000.1 is a new product. If you are currently using an EDM database version that is 2003.14 - 5000.0.0, you must install 5000.1, then upgrade your database, using the Multi-Version Database Upgrade Utility.

• EDT 5000.1 can co-exist with previous versions of EDT on the same machine. However, LAM 5000 **will not** co-exist with previous versions of LAM (FLEXlm license server) on the same machine. Previous versions of LAM must be uninstalled before you install 5000.1. To run EDT 5000.1 and a previous version of the EDT applications on the same machine, you must point one or both versions of EDT to a LAM server located on a remote machine, since only one version of LAM can run locally.

---

If you intend to run both an older version and 5000.1 EDT applications, make a copy of your older EDM database and test it, and then upgrade the copy to 5000.1. That way you can access your older database with the older EDT applications, and the 5000.1 EDM database with the 5000.1 EDT applications.

**CAUTION: Failure to upgrade the EDM databases to the latest version will result in unsatisfactory performance and cause program errors.**

Completion of the EDM database upgrade procedure is MANDATORY to ensure proper operation of all applications.

Use the new Multi-Version Upgrade Utility (EDMPatchDB.exe) included with this release to upgrade EDM version 2003.14 databases or later to 5000.1. This utility will *not* upgrade databases previous to 2003.14.

For details on using the Utility to upgrade 2003.14+ databases to 5000.1, see "Appendix C: Upgrading Older SQL/MSDE Databases" on page 103, and "Appendix D: Upgrading Older Oracle Databases" on page 135.

## *Database Upgrade Path in a Nutshell*

The version of EDM you are currently on determines the upgrade path you must take. This path is illustrated in the tables below:

### SQL Server/MSDE Upgrades - Automatic Mode

| Current EDM Version | Upgrade Path to 5000.1 |
|---|---|
| **2003.14 or higher** | **Run EDMPatchDB.exe (to go from 2003.14.x to 5000.1).** For details, see "Upgrade a SQL Database - Automated Mode" on page 50. |
| **2003.11** | **Call Landmark Support.** |

### Oracle Upgrades - Automatic Mode

| Current EDM Version | Upgrade Path to 5000.1 |
|---|---|
| **2003.14 or higher** | **Upgrade your Oracle 9i database to 10g (contact Oracle for details). Then, run EDMPatchDB.exe (to go from 2003.14.x to 5000.1).** For details, see "Upgrade an Oracle Database - Automated Mode" on page 56. |
| **2003.11** | **Call Landmark Support.** |

| IMPORTANT: If you have *ever* upgraded from a 2003.11 *Oracle* database... |
|---|
| then you cannot run the upgrade utility to upgrade to 5000.1 (due to a significant 2003.14 tablespace definitions change). In this case, call Landmark Support. |

### Database Upgrades - Manual Mode

See "Upgrading in Manual Mode" on page 60.

# The Multi-Version Database Upgrade Utility

New for the 5000.1 release is the ability to automatically upgrade from a database 2003.14 *or higher* all the way to 5000.1, using the Multi-Version Upgrade Utility (EDMPatchDB.exe). This Utility runs all of the appropriate upgrade scripts in a batch mode.

Procedures for upgrading both a SQL Server/MSDE/SQL Server Express 2005 or an Oracle database are outlined below.

## *Installation of the Upgrade Utilities and Pre-Upgrade Notes*

### Installing and Locating the Database Upgrade Tool

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the needed executables under the folder:

<install directory>\EDM\Updates

The Multi-Version Database Upgrade Utility (EDMPatchDB.exe) is located in that directory, and is called *EDMPatchDB.exe.*

### Pre-Upgrade Notes

---

**Database Upgrade of Oracle and SQL Server/MSDE/SQL Server 2005**

The Multi-Version Database Upgrade Utility can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

If your existing Oracle database is 9i, you must upgrade to Oracle 10g before upgrading your database to the EDT 5000.1 release. This should be done by an Oracle DBA. Contact Oracle for details.

---

> **XML Export/Import Option**
>
> If your older EDM dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling Applications on-line help.

Landmark highly recommends that a database backup is completed prior to running the database upgrade.

## How the Multi-Version Database Upgrade Utility Works

The EDMPatchDB.exe runs the files and scripts used when upgrading the Drilling EDM database from 2003.14 *or higher* to 5000.1.

> **Internal EDM Accounts and MSDE Database Upgrades**
>
> The default user accounts (edm, edmadmin, and edm_sa) in MSDE that already exist in SQL Server 2005 will have their passwords upgraded to 'Landmark1' during migration. All other users in MSDE that already exist in SQL Server 2005 will keep the same SQL Server 2005 password.

You can choose to run the utility in Automated mode or Manual mode. Landmark recommends that you choose **Run Automated**.

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, choose **Run Manually**.

For MSDE database manual upgrades to Microsoft SQL Server 2005 Express: contact Landmark Support

# Upgrade a SQL Database - Automated Mode

To upgrade from 2003.14 or higher SQL Server/MSDE database to 5000.1 in automated mode, follow the procedure below.

---

**Your SQL Server/MSDE/SQL Server Express Database Name cannot have a dot (.) in it.**

If your EDM Database *Name* has a dot (.) in it, the Upgrade will not work properly. (For example, the Database Name 'EDMDB' will work, 'EDM.DB' will not). This does not affect your database *Description* (for example, 'EDM 2003.21')

---

### To Run the Automated SQL Server Upgrade

1. From the `<install directory>\EDM\Updates` directory, run the *EDMPatchDB.exe* executable.

   The *Landmark EDM 5000.1 Database Upgrade* dialog appears.

Select **Upgrade a SQL Server/MSDE/SQL Express database**
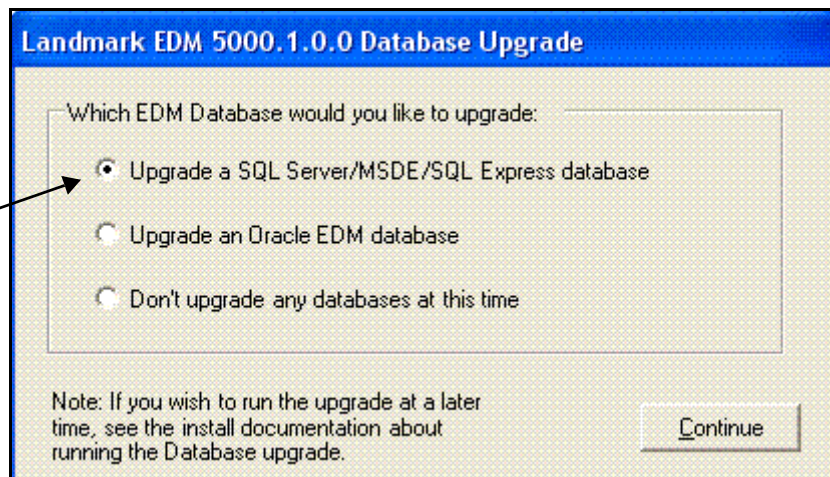


2. Select **Upgrade a SQL Server/MSDE/SQL Server Express database** option and click **Continue**.
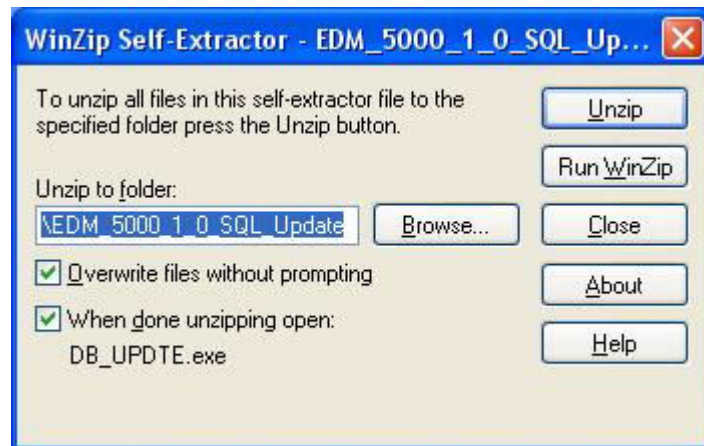
The *Winzip Self-Extractor* dialog appears.



3. Enter the temporary location where the scripts will be copied and select **Unzip**.

4. When the files have been unzipped click **OK**.

   The *Database Update Program* dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.1 Drilling Summary Level Release Notes* for the final release database version.)



   This dialog describes the upgrade scripts that will run.

5. Choose **Run Automated** to run the upgrade program in automatic mode. (See "Manually Upgrade SQL Server/MSDE/SQL Server

2005 Databases" on page 60 for more details on the Manual process.)
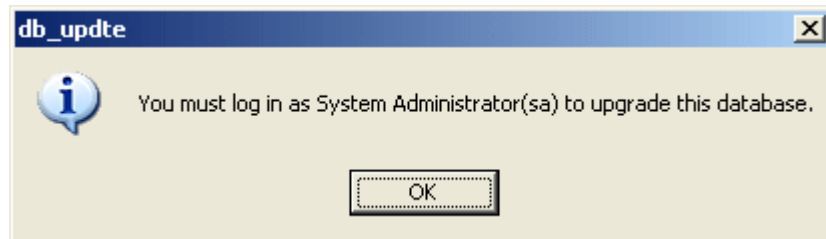
The following dialog appears:



6.   Click **OK**.

The database login screen displays.
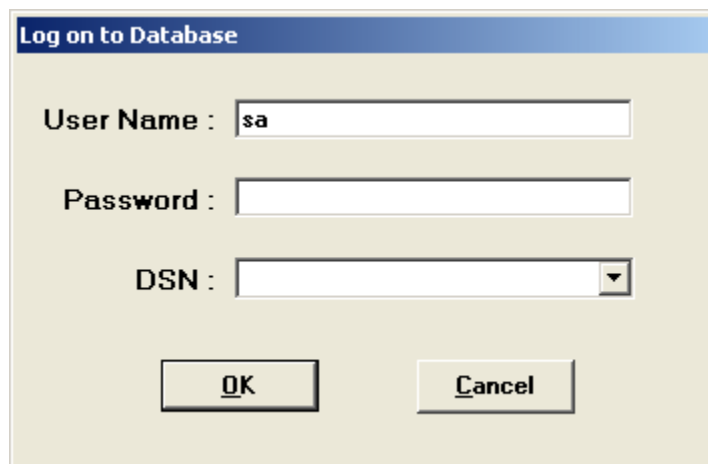


7.   Enter the System Administrator **User Name** and **Password**.

> **Database System Administrator**
>
> *You must login as Database System Administrator "DBA" to perform this upgrade.* The default password for the *sa* user is *landmark*.
>
> IMPORTANT NOTE: the sa user password is *landmark* until the upgrade progresses to release 5000.0.0, after which point the password is *Landmark1*)

8.   Select the Data Source Name *of the database you want to upgrade* from the **DSN** picklist (e.g., EDM 2003.21 Single User Db), and then click **OK.**

If your database version is currently 2003.14 - 2003.21, you will be prompted as follows:
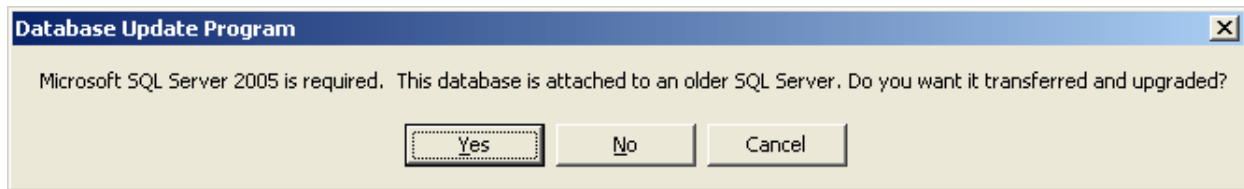


9. To detach the existing MSDE database and upgrade it to SQL Server 2005, click **Yes**. If you click No or Cancel, the existing MSDE database will not be upgraded.

10. Enter the SQL Server 2005 database password: *Landmark1*, and then click **OK**.
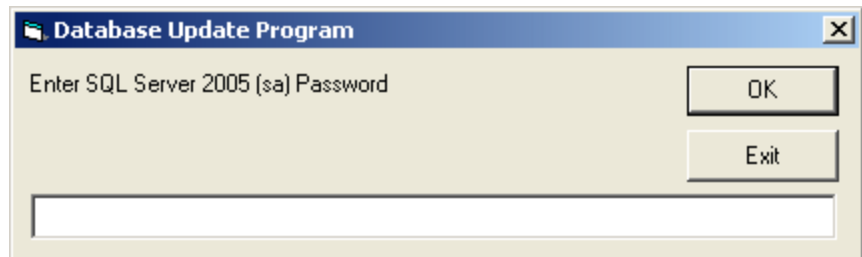


A dialog appears as the installation detaches and reattaches the MSDE database to SQL Server 2005 Express.

After several minutes, a confirmation dialog appears.

**This number** will vary, depending on the version of your source database

**This number** may differ from what you see here; see the EDT Drilling Summary Level Release Notes for the final database version for 5000.1



11. Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical upgrades taking approximately 10 minutes. Click **No** to abort the upgrade.

12.  If no errors occur the following message appears.



13.  Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.



Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

> **PK Table Login**
>
> During the database upgrade the program will attempt to login to the EDM
> Picklist table schema (PK) using the username and password set in the
> *Db_upd.INI* file; PK/landmark is used by default. If this login fails, the
> upgrade attempts to login using a password of PK. If this login also fails, the
> user is then prompted for the PK user password during the upgrade process.
>
> Landmark recommends verification of the PK login user name and
> password in the *Db_upd.INI* file prior to running the upgrade.

### *Rename the Data Source*

The database is now ready to use. Landmark recommends renaming the
Data Source name to reflect the newly upgraded database (e.g., rename
*EDM 2003.21 Single User Db* to *EDM 5000.1 Single User Db*).

Test the database by launching one of the Engineer's Desktop 5000.1
drilling applications and logging into the upgraded database.

> **IMPORTANT!**
>
> The newly upgraded database *remains in the directory where it was located* for
> the old (i.e., EDT 2003.21) installation. You may choose to detach the database
> and relocate it to another location to help prevent inadvertent deletion.

The procedure is complete.

# Upgrade an Oracle Database - Automated Mode

If you have an existing Oracle 9i database, you must upgrade to Oracle 10g before upgrading to 5000.1. This should be done by an Oracle DBA. Contact Oracle for details.

After your database has been updated to Oracle 10g, follow the procedures below to upgrade from an EDT 2003.14 or higher Oracle database to 5000.1 in automated mode.

> **IMPORTANT: If you have *ever* upgraded from a 2003.11 *Oracle* database...**
>
> then you cannot run the upgrade utility to upgrade to 5000.1 (due to a significant 2003.14 tablespace definitions change). In this case, call Landmark Support.

### To Run the Automated Oracle Upgrade

1.  From the `<install directory>\EDM\Updates` directory, run the *EDMPatchDB.exe* executable.

    The *Landmark EDM 5000.1 Database Upgrade* dialog appears.

Select **Upgrade an Oracle EDM database**



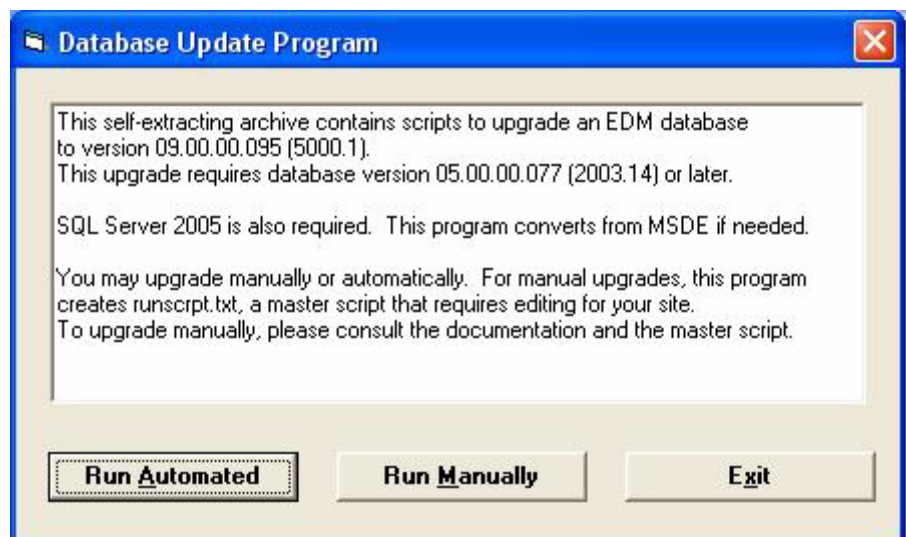2.  Select **Upgrade an Oracle EDM database** option and click **Continue**.

The *Winzip Self-Extractor* dialog appears.
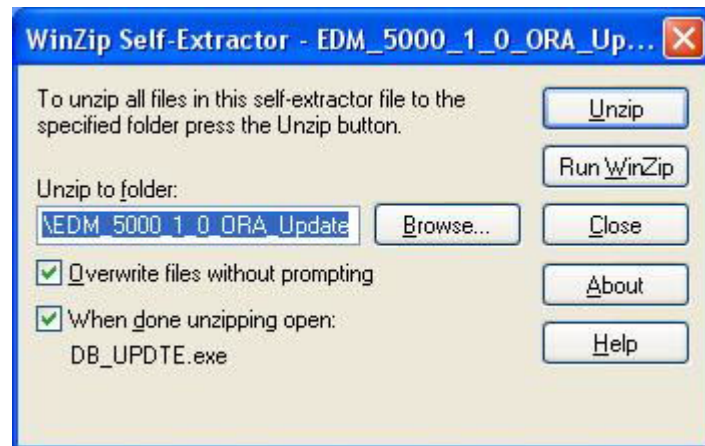


3.  Enter the temporary location where the scripts will be copied and select **Unzip**.

4.  When the files have been unzipped click **OK**.

    The *Database Update Program* dialog appears.

**This number** may differ from what you see here; see the EDT Drilling Summary Level Release Notes for the final database version for 5000.1



This dialog describes the upgrade scripts that will run.

5.  Choose **Run Automated** to run the upgrade program in automatic mode. (See "Manually Upgrade Oracle Databases" on page 60 for more details on the Manual process.)

The following dialog displays:
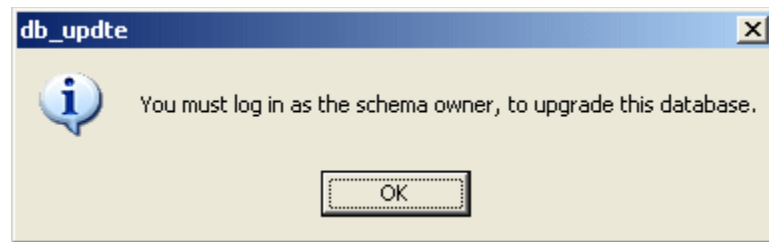


6.   Click **OK**.

The following dialog displays.
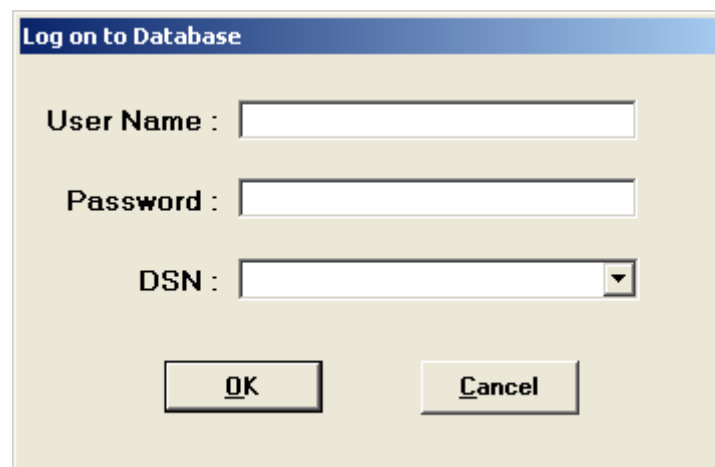


7.   Enter the **User Name** and **Password** for the **Schema Owner** user.

> **Schema Owner user**
>
> *You must login as the Schema Owner to perform this upgrade.* For
> EDT_2003.x versions, the default password for the Schema Owner user
> (*edmadmin*) is *edmadmin*. For EDT_5000.x versions, the default password
> for the Schema Owner user (*edmadmin*) is *Landmark1*.
>
> IMPORTANT NOTE: the Schema Owner user password is *edmadmin* until
> the upgrade progresses to release 5000.0.0, after which point the password
> is *Landmark1*)

8.   Select the Data Source Name o*f the database you want to upgrade*
     from the **DSN** picklist (e.g., EDMORADB). Click **OK** to
     continue.

A confirmation dialog will appear.

**This number** will vary, depending on the version of your source database

**This number** may differ from what you see here; see the EDT Drilling Summary Level Release Notes for the final database version for 5000.1

> This will upgrade from version 07.00.00.076 to 09.00.00.093, Do you wish to continue?
>
> Yes          No
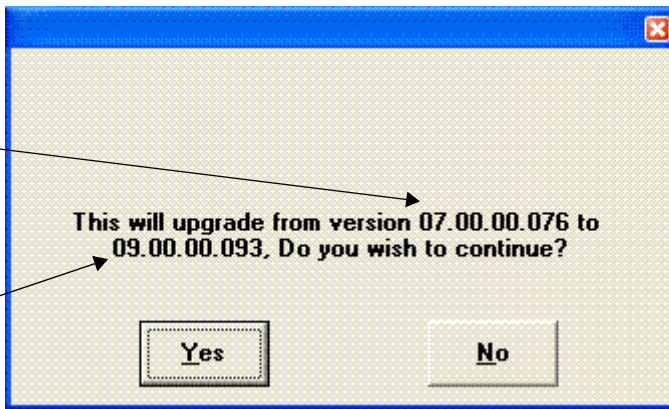
9.  Click **Yes** to begin the upgrade.The database upgrade scripts are executed. (This may take some time. The duration depends on the version you are upgrading from, the size of your database, your CPU speed, etc.) Click **No** to abort the upgrade.
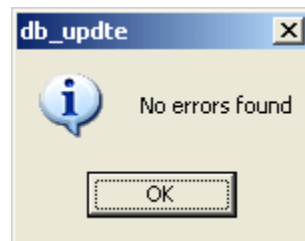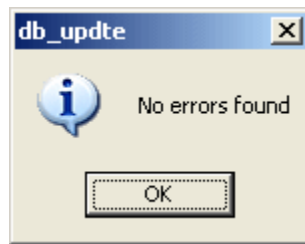
10. If no errors occur the following message appears.

> db_updte
>
> No errors found
>
> OK

11. Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.

Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

---

The procedure is complete.

# Upgrading in Manual Mode

## *Manually Upgrade SQL Server/MSDE/SQL Server 2005 Databases*

Landmark strongly recommends using the Automatic Upgrade procedure on page 50 to upgrade 2003.14 or higher SQL Server/MSDE/SQL Server 2005 Express EDM databases to Release 5000.1.

For troubleshooting, or for special cases where a manual upgrade is desired, please contact Landmark Support for assistance.

## *Manually Upgrade Oracle Databases*

If you have an existing Oracle 9i database, you must upgrade to Oracle 10g before upgrading to 5000.1. This should be done by an Oracle DBA. Contact Oracle for specifics.

### Important Note About Custom Picklists Additions and Modifications Before Manually Upgrading...

The database upgrade will refresh the content of some picklists and may overwrite/delete any additional picklist records or modifications made. To edit the picklist upgrade scripts before running them, please select the **Run Manual** method when running the Database Upgrade to unzip the scripts and make your changes before upgrading your database.

The following scripts create or modify picklists for Oracle:

- 2003.16.0\ow_pk_structure.ora
- 2003.21.0\pk_catalog.ora
- 2003.21.0\pk_structure.ora
- 2003.21.0\rannoch_pk_structure.ora
- 2003.21.0\wc_pk_structure.ora
- 5000.0.0\pc_pk_structure.ora
- 5000.0.0\r5000_pk_structure.ora
- 5000.1.0\5000_1_pk_structure.ora
- 5000.1.0\grizzly_pk_structure.ora
- 5000.1.0\pc_pk_structure.ora
- 5000.1.0\r5000_pk_structure.ora
- 5000.1.0\wc_pk_structure.ora

The following scripts create or modify picklists for SQL Server 2005/
SQL Server 2005 Express or MSDE:

- 2003.16.0\ow_pk_structure.syb
- 2003.21.0\pk_catalog.syb
- 2003.21.0\pk_structure.syb
- 2003.21.0\rannoch_pk_structure.syb
- 2003.21.0\wc_pk_structure.syb
- 5000.0.0\pc_pk_structure.syb
- 5000.0.0\r5000_pk_structure.syb
- 5000.1.0\5000_1_pk_structure.syb
- 5000.1.0\grizzly_pk_structure.syb
- 5000.1.0\pc_pk_structure.syb
- 5000.1.0\r5000_pk_structure.syb
- 5000.1.0\wc_pk_structure.syb

The following scripts create or modify picklist contents:

- 2003.21.0\pk_data_commit.sql
- 2003.21.0\rannoch_pk_data.sql
- 2003.21.0\wc_pk_data.sql
- 5000.0.0\pc_pk_data.sql
- 5000.1.0\5000_1_pk_data.sql
- 5000.1.0\grizzly_pk_data.ora (Oracle only)
- 5000.1.0\grizzly_pk_data.sql
- 5000.1.0\grizzly_pk_data.syb (SQL Server only)
- 5000.1.0\pc_pk_data.sql
- 5000.1.0\pk_high_char_label_fix.ora (Oracle only)
- 5000.1.0\pk_high_char_label_fix.syb (SQL Server only)
- 5000.1.0\wc_pk_data.sql

The following scripts affect picklist access and security:

- 2003.16.0\misc_pk_grants.sql
- 2003.16.0\ow_pk_grants.sql
- 2003.21.0\rannoch_pk_grants.sql
- 2003.21.0\pk_catalog_grants.sql
- 2003.21.0\wc_pk_grants.sql
- 5000.1.0\5000_1_pk_grants.sql
- 5000.1.0\grizzly_pk_grants.sql
- 5000.1.0\pc_pk_grants.sql
- 5000.1.0\wc_pk_grants.sql

> **Note: script types**
>
> **.ora scripts** are for Oracle only.
>
> **.syb scripts** are for SQL Server/MSDE/SQL Server 2005/SQL Server 2005 Express only.
>
> **.sql scripts** are for all database types

### *Oracle Manual Upgrade Procedure*

1. From the `<install directory>\EDM\Updates` directory, run the *EDM_5000_1_0_ORA_Update.exe* executable.

> **Log Files**
>
> The Update utility will prompt you to save log files once the upgrade has completed.

> **PK Table Login**
>
> During the database upgrade the program will attempt to login to the EDM Picklist table schema (PK) using the username and password set in the *Db_upd.INI* file; PK/landmark is used by default. If this login fails, the upgrade attempts to login using a password of PK. If this login also fails, the user is then prompted for the PK user password during the upgrade process.
>
> Landmark recommends verification of the PK login user name and password in the *Db_upd.INI* file prior to running the upgrade.

The *Landmark EDM 5000.1 Database Upgrade* dialog appears.



2.  Select **Upgrade an Oracle EDM database** option and click **Continue**.

    The *Winzip Self-Extractor* dialog appears.



3.  Enter the temporary location where the scripts will be copied and select **Unzip**.

4.  When the files have been unzipped click **OK**.

The *Database Update Program* dialog appears.

**This number** may differ from what you see here; see the EDT Drilling Summary Level Release Notes for the final database version for 5000.1

**Database Update Program**

This self-extracting archive contains scripts to upgrade an EDM database to version 09.00.00.095 (5000.1).
This upgrade requires database version 05.00.00.077 (2003.14) or later.

You may upgrade manually or automatically.  For manual upgrades, this program creates runscrpt.txt, a master script that requires editing for your site.
To upgrade manually, please consult the documentation and the master script.

[ **Run Automated** ]        [ **Run Manually** ]        [ E**x**it ]

This dialog describes the upgrade scripts that will run.

5.  Create an empty temporary folder, *with no spaces in the name*, in the directory that the upgrade files were unzipped to in step 3.

---

**No spaces in the directory names!**

Ensure that the folder you create is empty and that the name of the directory contains no spaces. This will prevent possible conflicts and/or errors with the database upgrade. At the completion of the database upgrade, you may delete the upgrade files from the temporary folder.

---

6.  Choose **Run Manually** to run the upgrade program in manual mode. Landmark recommends using the **Run Automated** button, described in "Upgrade an Oracle Database - Automated Mode" on page 56 for most installations. This upgrade will upgrade an EDM database from 2003.14 or higher to 5000.1.

The following dialog appears:
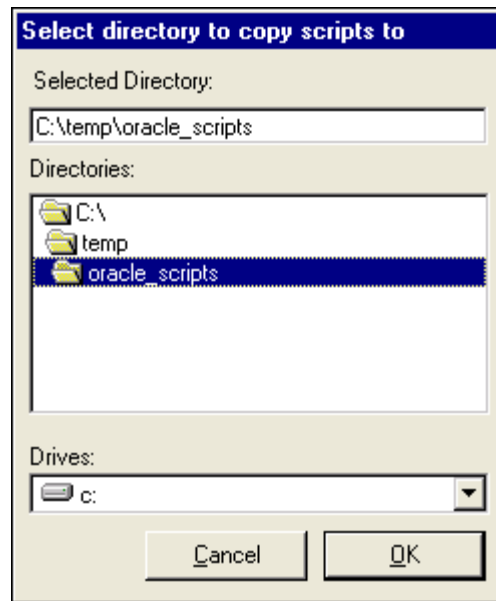


7.  Navigate to and select the temporary directory created in step 5 to copy the database upgrade scripts.

---

**Do not copy scripts to same directory where the DB_UPDTE.exe file is located.**

To prevent conflict, copy the scripts to an empty temporary folder other than the directory that the DB_UPDTE.exe file is located.

---

8.  Click **OK**. The scripts are copied to the specified location.

    The *Version Information* dialog appears.
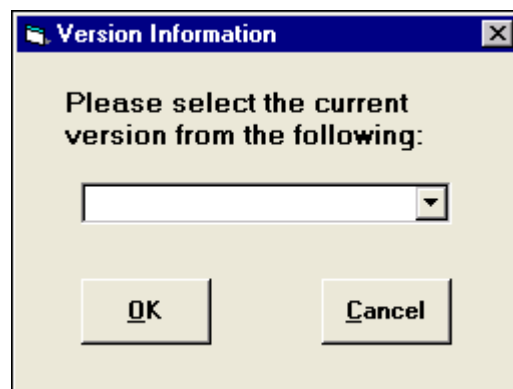
9.  Select the current EDM database version in use from the drop-down menu.

10. Click **OK**.

11. The following dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.1 Drilling Summary Level Release Notes* for the final release database version.)
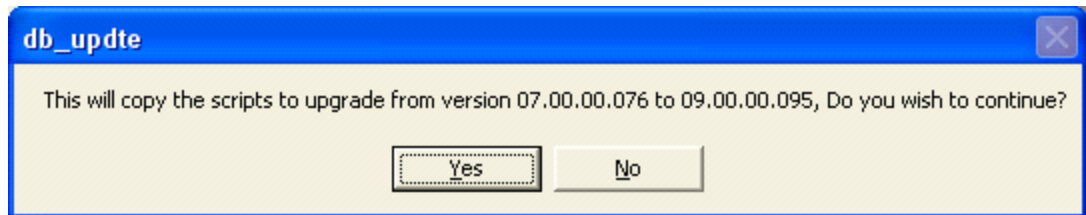


12. Click **Yes** if the current and upgrade database versions are displayed correctly. Click **No** to abort the database upgrade. It may be run at a later time.

    Once the files are copied, the confirmation dialog appears.



13. Click **OK**.

14. Navigate to the temporary folder that the scripts were unzipped to in step 7 and open **runscrpt.txt** with a text editor.
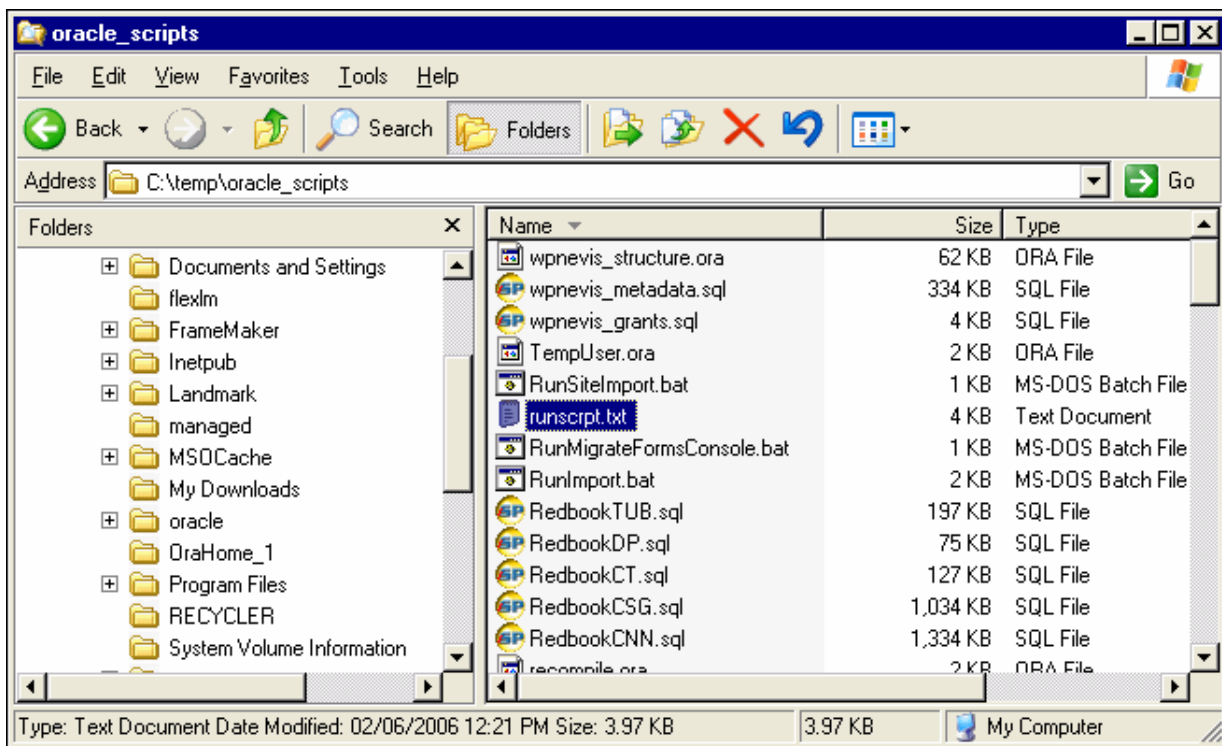


15. Edit the connection parameters (username, password, and in most cases include the SID) in the following command line.

```
connect PK/Landmark1
```

---

**PK User**

The default Picklist user name is PK and must not be changed to prevent problems with EDM applications, such as OpenWells. The default password for PK user is "Landmark1" and can be changed as needed. Most cases require adding @<SID> to the end of the PK connect command. Check with your Database Administrator for PK user name and password.

Example:

connect PK/Landmark1@edm_oracle

---

16. Save and close runscrpt.txt.

17.  Open a command window using **Start > Run > cmd**.
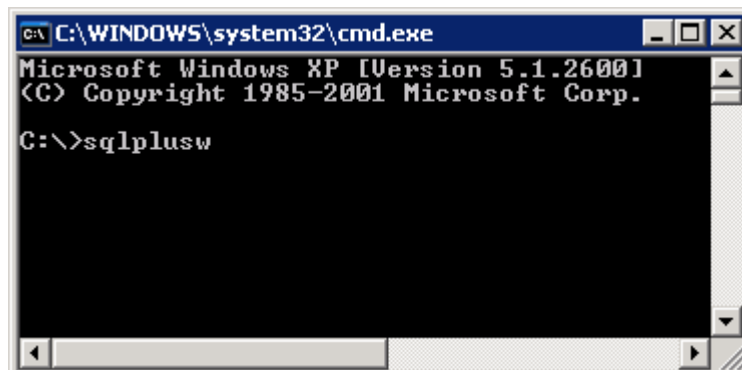


18.  Enter **sqlplusw** at the command prompt and press **Enter**. The SQL*Plus login dialog appears.
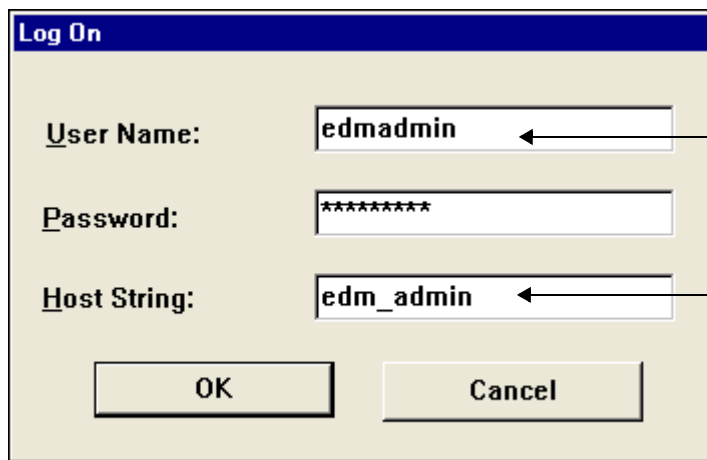


IMPORTANT! This *must* be the Schema Owner user name

This is the name (SID) of the database

19.  Enter the **User Name**, (the Schema Owner user name) **Password** (the Schema Owner password) and **Host String** (the SID for the database you desire to upgrade).

---

**Database Access with SQL*Plus**

Contact the Database Administrator or the Schema Owner for the Schema User Name, Password and Host String (the name of the database, referred to as the System ID, or SID) to open SQL*Plus and login to the database.

---

20. Click **OK**. Click **Cancel** to cancel to close SQL*Plus if you desire to run the scripts at a later time.

---

**Script Errors**

Running the upgrade manually may generate error messages from the recompile.ora script. The error messages generated when recompile.ora interacts dynamically with the Oracle are expected, and are generally harmless.

---

21. From the SQL*Plus window, type:

Start <complete path the temporary folder that files were unzipped to in step 3>\runscrpt.txt
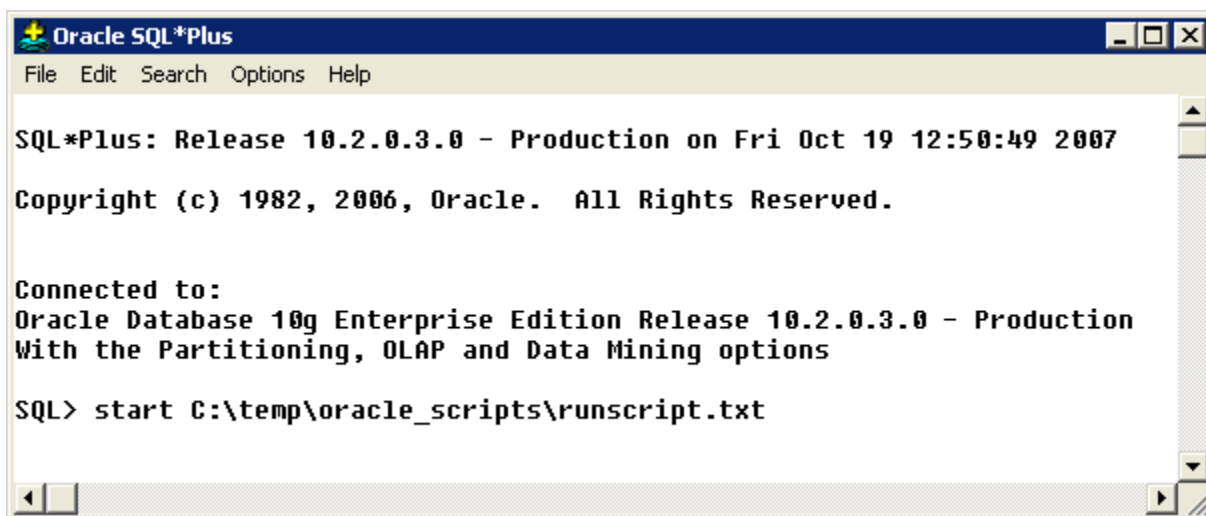


22. Press **Enter** to run the scripts. (This may take some time. The duration depends on the version you are upgrading from, the size of your database, your CPU speed, etc.).

23. Open a command window using **Start > Run > cmd**.

24. Change the command prompt directory to the location where the files were unzipped in step 7.



```
C:\WINDOWS\system32\cmd.exe                                    _□×
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\hbl2644>cd c:\temp\oracle_scripts

C:\temp\oracle_scripts>_
```
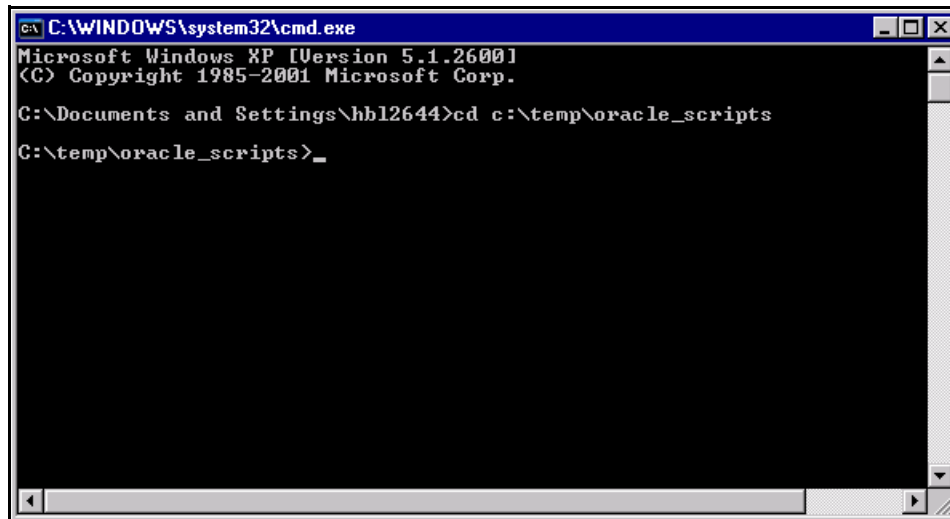
25. Type **RunSiteImport <DSN> <username> <password>** into the Windows command prompt. You must replace <DSN>, <username> and <password> with the correct database connection parameters and no brackets to execute this command correctly. See the note below for details.

---

**RunSiteImport**

RunSiteImport is an external command that needs to run from the Windows command prompt. Enter RunSiteImport <DSN> <username> <password> to reflect connection parameters that are specific to the database being upgraded.
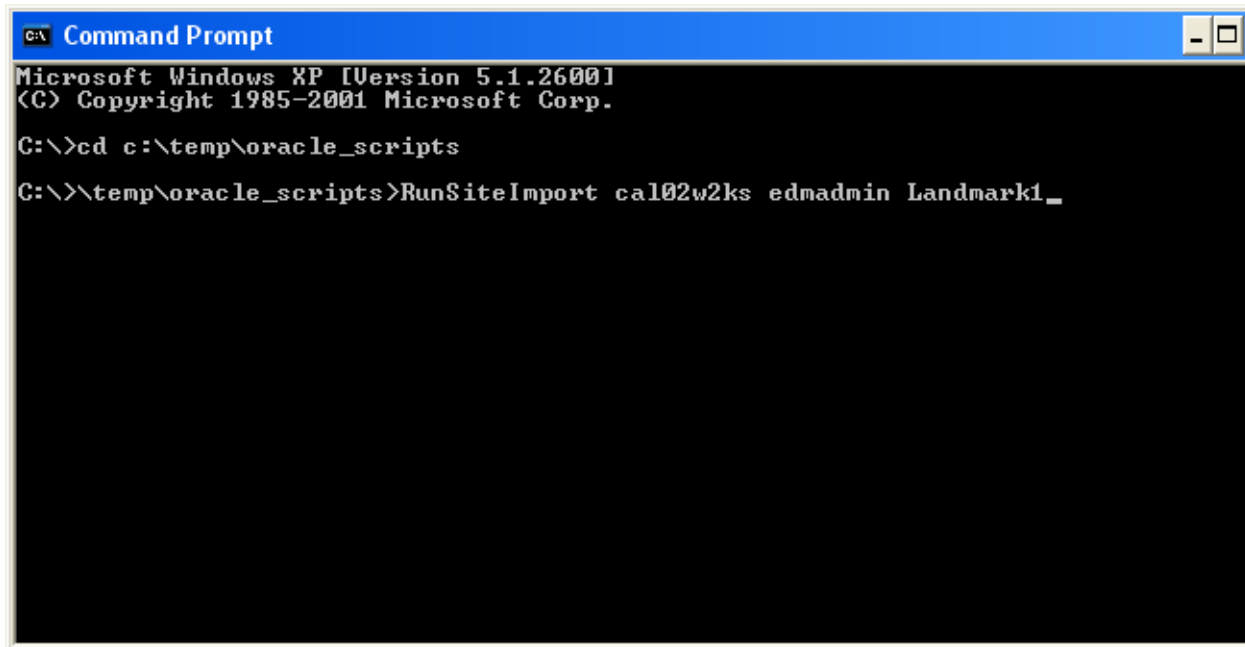
Example: RunSiteImport ht02w2ks edmadmin Landmark1

Where:

ht02w2ks is the DSN (also referred to as the Service Name)

edmadmin is the Schema Owner user name

Landmark1 is the Schema Owner password

---

26. Press **Enter** to run the command.

    If errors are reported in the SiteImport.log file, contact Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the SiteImport.log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported

---

.

---

**RunMigrateFormsConsole**

It is not necessary to run the external command RunMigrateFormsConsole mentioned in runscrpt.txt.

---

The procedure is complete.

# *Appendix A: Microsoft SQL Server 2005 Express (Release 5000.0.0 and Higher)*

## Overview

This section details the procedure for viewing, backing up, and restoring the Microsoft SQL Server 2005 Express EDM database.

Microsoft SQL Server 2005 Express is Microsoft's replacement for MSDE, the middle-tier database engine used by Landmark for Engineer's Desktop stand-alone implementations.

Microsoft SQL Server 2005 Express is intended to run as a background service on the PC, and administers itself. Microsoft SQL Server 2005 Express is also fully compatible with Microsoft SQL Server 2005.

---

**Manually attaching SQL databases when SQL Server Administration is not installed**

If you create a new EDM 5000.1 database with the EDM Database Creation utility, you will need to manually attach the database to any SQL instance that is not named "EDM5000".

This work around addresses cases where SQL Server Administration is not selected as a feature during the EDT 5000.1 installation, and a SQL instance with a name other than "EDM5000" will be used.

---

# Viewing Microsoft SQL Server 2005 Express Database Contents Using Microsoft Access (5000.0.0 Release and Higher)

In previous versions of Landmark Drilling Data Management Well operations reporting (DIMS) software, the System Administrator had the ability to view and manipulate the database tables using Microsoft Access 2000 or later. Microsoft SQL Server 2005 Express has no user interface that can both view *and* manipulate the database tables. A procedure is available that uses Microsoft Access to view and allow manipulation of the SQL Server 2005 Express database contents.

This section outlines the procedure for viewing the SQL Server 2005 Express database tables through Microsoft Access. The steps to accomplish it are:

1.  Open Microsoft Access 2000

> **Note:**
>
> This procedure will only work with Microsoft Access 2000 or later.

2.  Follow the menu path:

    **File > New**

    The *New* dialog box appears.

In Microsoft Access 2003, there are links in a panel located on the right side of the main screen.
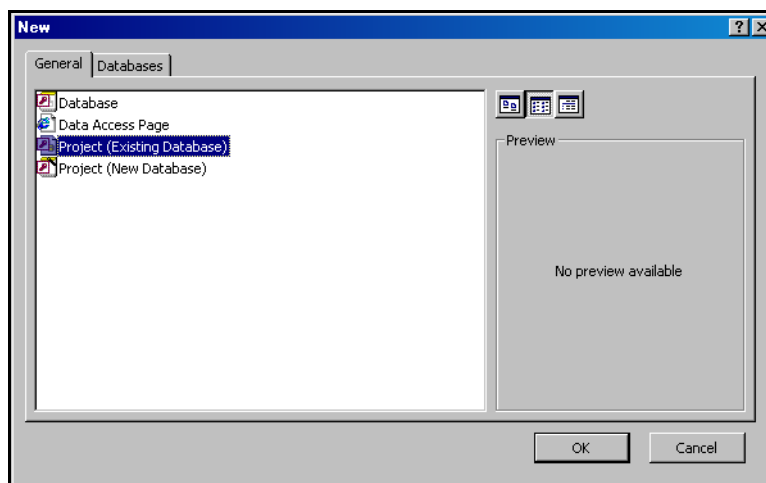
3.  In the **General** tab, select **Project (Existing database)**. (For Access 2003, select the **Project using existing data...** link from the right panel.)

The *File New Database* dialog displays.
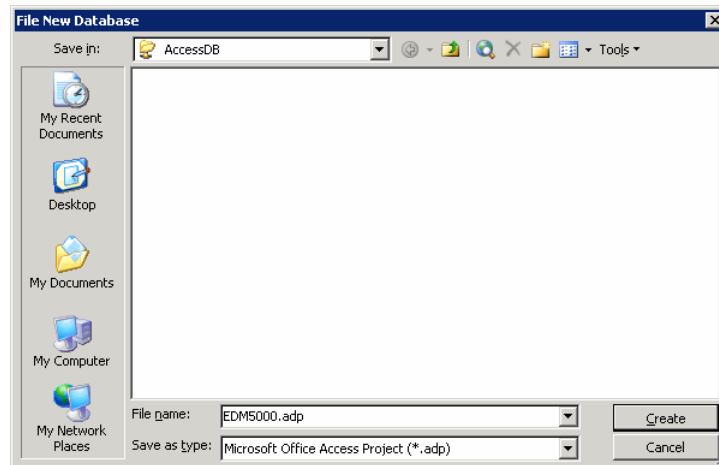


4.  Navigate to the location where the new Microsoft Access project (.ADP) file will be stored and specify a name for the project file in the **File name** field (for example, C:\Landmark\EDT_5000.1\EDM\SQL Server Utility\DB\EDM ADP)

5.  Click **Create**.
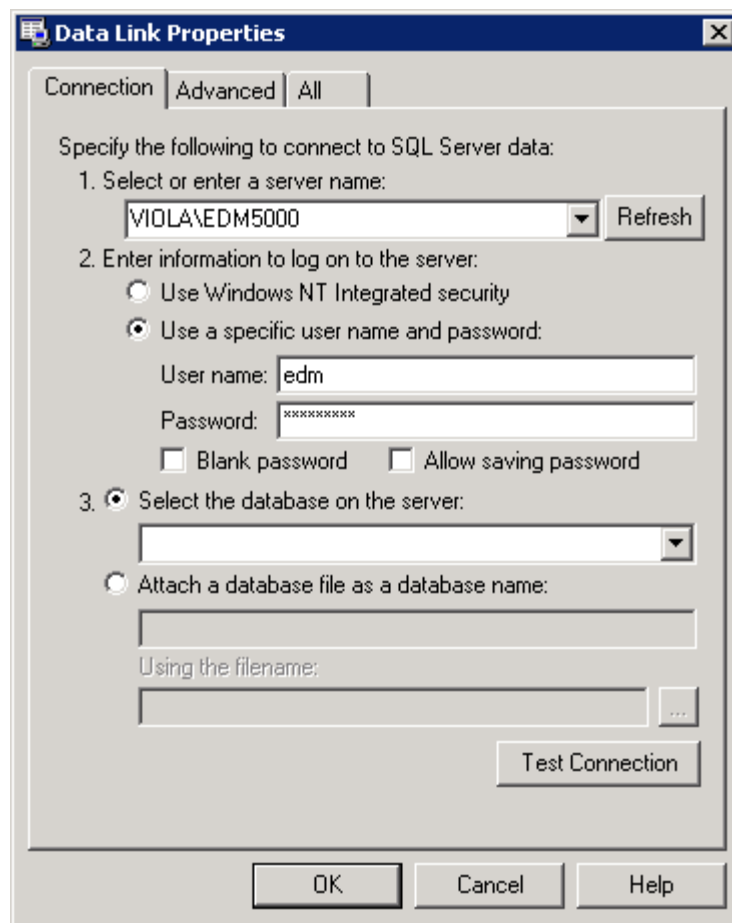
The *Data Link Properties* dialog box appears.



6. Use the dropdown to select the Server name from the list of active SQL Server 2005 and SQL Server 2005 Express databases, or enter the Server name in the **Select or enter server name** field. An example of the Server name is *<Machine Name>\EDM5000*.

7. In the **Enter information to log on to the server** area, select the **Use a specific user name and password** option button.

8. Enter the user name and password in the fields provided.

---

**Default Account**

The default account user name for the EDM database is '*edm';* the default account password is *'Landmark1'*.

---

9. Select the **Select the database on the server** option button.

10. Use the dropdown listbox to select the database name from the list of active SQL Server 2005 and SQL Server 2005 Express databases, or enter the database name in the **Select the database on the server** field.

11. Select **EDMDB**.

12. Click the **Test Connection** button.

    A dialog box should appear with the message, *"Test connection succeeded."* If this message is not received, review the procedure and try again. If it is still unsuccessful, contact the administrator or Landmark Support.

13. Click **OK**.

    Access now works against SQL Server 2005 Express exactly as though it was an Access (Jet) database. All the tables are visible, and the database contents can now be manipulated.

# Using the EDM SQL Server Utility

The Landmark EDM SQL Server Utility performs the following functions:

- installs a SQL Server 2005 Express database server if one is not present on the local machine,

- copies a blank EDM database file (edm.mdf),

- attaches the EDM database file to the SQL Server 2005 Express database,

- creates the user:

 **username:** *edm***, password:** *Landmark1***,**

- creates the default administrator account:

 **username:** *sa***, password:** *Landmark1***,**

- creates default EDM Data Source Name (DSN) for ODBC (EDM 5000.1 Single User Db).

---

**Using the Default Account**

The default administrator account (i.e., 'sa') should NOT be used to enter data or run applications besides MSDEUtils and when configuring security in the EDM Administration Utility.

---

1. To create an SQL Server 2005 Express database if one has not been created before, run the SQL Server Utility installed with the Engineer's Desktop 5000.1 release. This utility can be found in the Windows Start menu as follows:

 **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > SQL Server Utility**

---

**Note**

If a SQL Server database is currently installed, see "Installing Additional or Replacing EDM Microsoft SQL Server 2005 Express Databases (Release 5000.0.0 and Higher)" on page 83 for instructions on installing additional databases.

---

2.  From the Landmark EDM SQL Server Utility window, enter the default path for the SQL Server 2005 Express Directory or click the **...** button to browse to the location where the SQL Server 2005 Express Server will be installed. The default location is <install directory>\EDM\Databases.

3.  Use the default path for the Database Directory or click the **...** button to browse to the location where SQL Server 2005 Express database will be stored. The default location is <install directory>\EDM\Databases.

4.  Click the **Install and Start SQL Server 2005 Express** button to begin the installation of the SQL Server 2005 Express Server. The progress of the installation is shown in the Status area of the SQL Server 2005 Express Utilities window.

5.  When the message "*Configuration successful"* appears in the status window, the Microsoft SQL Server Desktop Engine is installed, and the **Database Name** field in the Manage Database area becomes available.

6.  Click the **Create EDM Instance** button. The creation process is displayed in the Status area.

7.  When the message "*Database <database name> attached. Users and DSN created*." appears in the status window, a new instance of the EDM database creation is complete.

> **Rebooting:**
>
> Rebooting the PC is not necessary.

# Backing Up the EDM Microsoft SQL Server 2005 Express Database (Release 5000.0.0 and Higher)

To back up the EDM database from within the SQL Server Utility:

1. Follow the menu path:

   **Tools > Backup Database**

   The *Select a Database...* window appears.



2. Select the database to be backed up in the **Database Instance** area.

3. Click the **Backup** button.

4. Navigate to the location where the backup of the database will be stored.

5. Enter a **File name** for the backed up database.

6. Click **Save** to save a backup of the database.

   OR
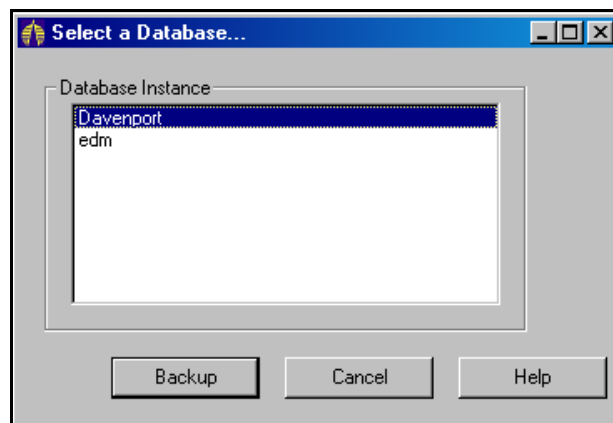
7. Click **Cancel** to return to the main window. A message will appear stating, "*SQL Server BackupFile was not specified*". Click **OK**.

8. Click **Cancel** to return to the main window.

9. Click **Exit** to exit the SQL Server Utility and close the window.

# Restoring the EDM Microsoft SQL Server 2005 Express Database (Release 5000.0.0 and Higher)

To restore the EDM database from within the SQL Server Utility:

1.  Follow the menu path:

    **Tools > Restore Database**

    The *Select a Database Backup File* window appears.
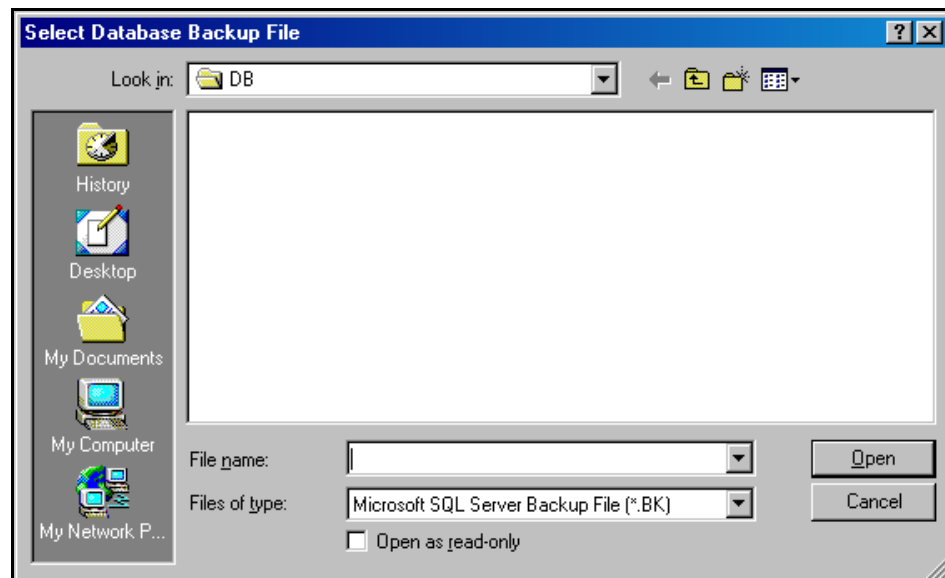


2.  Browse to the database file that will be used to restore the EDM database.

3.  Select the database to be restored and click **Open**.

> **Applications Running Against SQL Server 2005 Express**
>
> The restoration of a database will impact all users/applications, as the database being used will be replaced by a backup copy. Ensure that no applications are running against the SQL Server 2005 Express instance.

The Restore from Backup window appears.

4.  Select a database in the Select a backup to Restore... area.

5. Click **OK** to return to the SQL Server Utility window. The database is restored and the database files that were replaced is renamed with a _00x suffix.

OR

6. Click **Cancel** to return to the main window. A message will appear stating, "*SQL Server BackupFile was not specified.*" Click **OK**.

7. Click **Exit** to exit the SQL Server Utility and close the window.

# Installing Additional or Replacing EDM Microsoft SQL Server 2005 Express Databases (Release 5000.0.0 and Higher)

The Landmark EDM SQL Server Utility attaches the database files (.MDF and .LDF) to SQL Server 2005 and creates an ODBC connection to the database.

1. From the Windows Start menu launch the SQL Server Utility.

   **Start > Programs > Landmark Engineer's Desktop 5000.1 > Tools > SQL Server Utility**

   The *Landmark EDM SQL Server Utility* window appears.
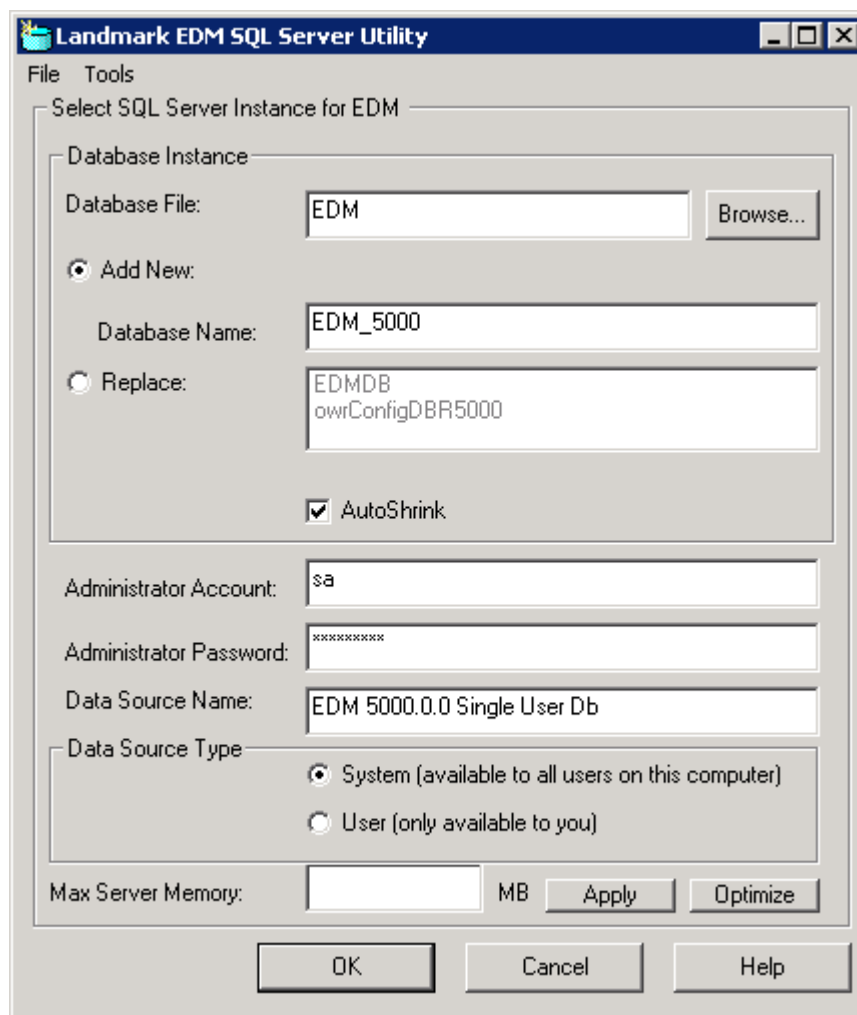
2.  Click the **Browse** button to navigate to the location of the database files (e.g., edm_5000.mdf)

3.  To add a new database instance, select the **Add New** option and enter the name of the new database instance in the field provided.

    Alternatively, to replace the SQL Server 2005 Express database instance, select the **Replace** option and select the database instance to be replaced from the list provided. A clean EDM database will overwrite the existing EDM instance.

4.  Activate the **AutoShrink** checkbox to enable the autoshrink setting. This setting will reduce the database file size by removing unused space periodically. There will be no requirement to manually compact the database.

5.  If the default administrator account (sa) created when SQL Server 2005 Express is initially installed has been removed, enter the appropriate **Administrator Account** name and **Administrator Password**.

6.  Enter the new **Data Source Name**.

---

**Overwriting ODBC Connections**

Verify that the **Data Source Name** does not currently exist. Selecting an existing Data Source Name will overwrite the ODBC connection to the current database.

---

7.  Enter the Maximum Server Memory.

8.  Click **OK**.

A message appears when the new instance of the EDM database has been created.
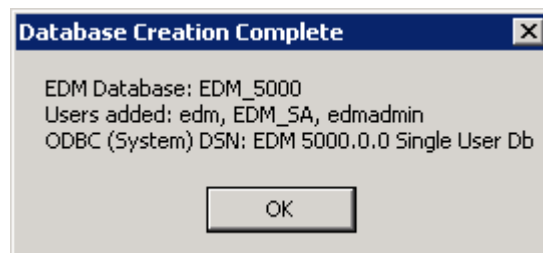


9.  Click **OK**.

# Microsoft SQL Server 2005 and SQL Server 2005 Express Installation Issues

## *SQL Server 2005 or SQL Server 2005 Express Selection of Ports When MSDE Exists*

The EDM 5000.1 installation automatically detaches the EDM 2003.21 instance from MSDE and attaches it to the SQL Server 2005 or SQL Server 2005 Express database. MSDE uses port 1433 as the default, which is also the default port used by SQL Server 2005 and SQL Server 2005 Express. Since MSDE is already using port 1433, the SQL Server installation will randomly choose another port.

External users of the EDM 5000.1 SQL Server database will need to know the port in order to connect. To determine which port is being used by SQL Server 2005 or SQL Server 2005 Express:

1. Select **Start > Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager**.

2. From the hierarchical tree in the left panel, navigate to and select **SQL Server 2005 Network Configuration > Protocols for <Instance Name>**

3. From the right panel, double-click on the **TCP/IP** protocol name.

   The TCP/IP Properties dialog displays.

4. Select the **IP Addresses** tab.

   The port used by SQL Server 2005 or SQL Server 2005 Express is listed as the TCP Dynamic Ports.

# *Appendix B: MSDE* (Pre-5000.0.0 Releases)

## Overview

This section details the procedure for viewing, backing up, and restoring the MSDE EDM database.

MSDE (Microsoft Desktop Engine) is Microsoft's middle-tier database engine used by Landmark for Engineer's Desktop stand-alone implementations.

MSDE is intended to run as a background service on the PC, and administers itself. It is Microsoft's alternative to the Microsoft Jet database, with advanced database functionality. MSDE is also fully compatible with Microsoft SQL Server.

# Viewing MSDE Database Contents Using Microsoft Access (Pre-5000.0.0 Releases)

In previous versions of Landmark Drilling Data Management Well operations reporting (DIMS) software, the System Administrator had the ability to view and manipulate the database tables using Access. MSDE has no user interface, and therefore the contents of the database tables (for applications such as OpenWells) cannot be manipulated directly with MSDE. A procedure is available that uses Microsoft Access to view and manipulate the MSDE database contents.

This section outlines the procedure for viewing the MSDE database tables through Microsoft Access. The steps to accomplish it are:

1.  Open Microsoft Access 2000

---

**Note:**

This procedure will only work with Microsoft Access 2000 or later.

---

2.  Follow the menu path:

    **File > New**

    The *New* dialog box appears.
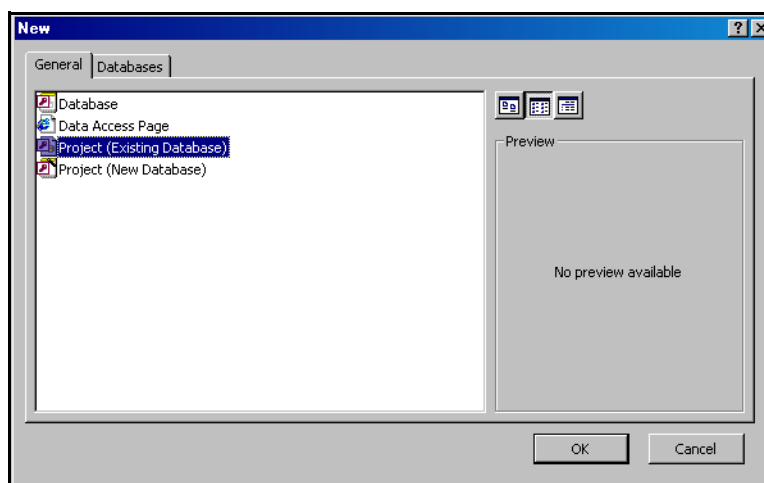
3. In the **General** tab, select **Project (Existing database)**.

---

**Note:**

This option is new to Microsoft Access 2000.

---

The *File New Database* dialog box appears.
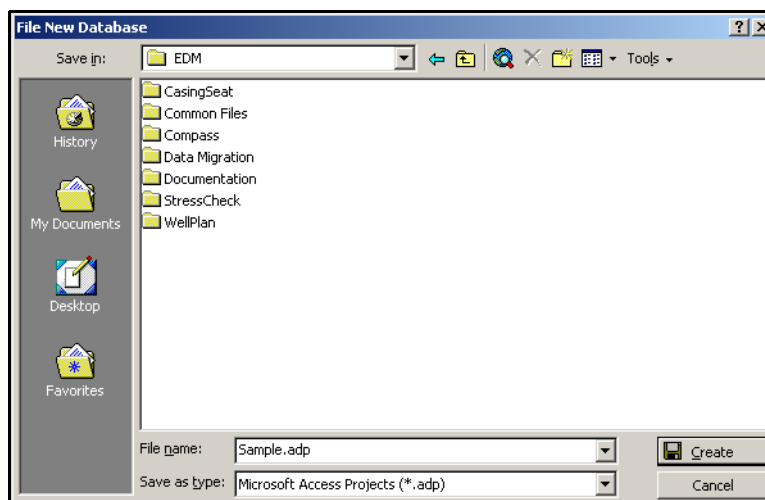


4. Navigate to the location where the new Microsoft Access project (.ADP) file will be stored and specify a name for the project file in the **File name** field (for example, C:\Landmark\EDT_2003.21\EDM\MSDE Utility\DB\EDM.ADP)

5. Click **Create**.
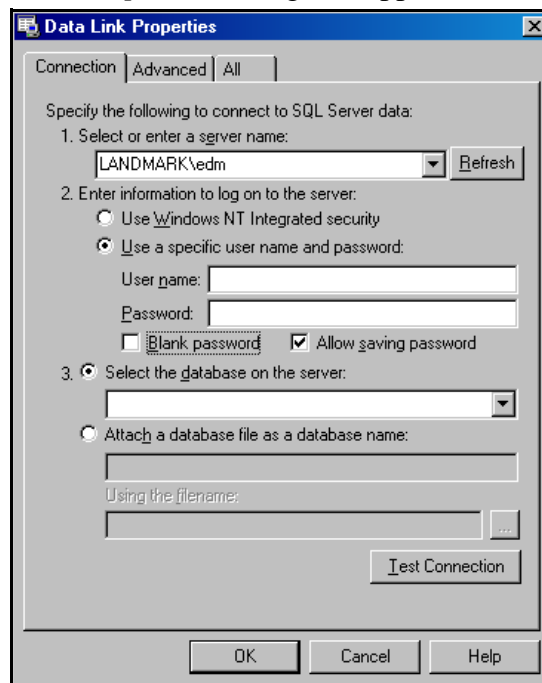
The *Data Link Properties* dialog box appears.



6.  Use the dropdown to select the Server name from the list of active SQL Server and MSDE databases, or enter the Server name in the **Select or enter server name** field. An example of the Server name is <Machine Name>\edm.

7.  In the **Enter information to log on to the server** area, select the **Use a specific user name and password** option button.

8.  Enter the user name and password in the fields provided.

---

**Default Account**

The default account user name for the EDM database is '*edm';* the default account password is *'landmark'* (in lower case).

---

9.  Select the **Select the database on the server** option button.

10. Use the dropdown listbox to select the database name from the list of active SQL Server and MSDE databases, or enter the database name in the **Select the database on the server** field.

11. Select **EDM**.

12. Click the **Test Connection** button.

A dialog box should appear with the message, *"Test connection succeeded."* If this message is not received, review the procedure and try again. If it is still unsuccessful, contact the administrator or Landmark Support.

13. Click **OK**.

Access now works against MSDE exactly as though it was an Access (Jet) database. All the tables are visible, and the database contents can now be manipulated.

# Using the MSDE Administration Utility (Pre-5000.0.0 Releases)

The Landmark EDM MSDE Administration utility performs the following functions:

- installs an MSDE database server if one is not present on the local machine,

- copies a blank EDM database file (edm.mdf),

- attaches the EDM database file to the MSDE database,

- creates the user:

    **username:** *edm***, password:** *landmark***,**

- creates the default administrator account:

    **username:** *sa***, password:** *landmark***,**

- creates default EDM Data Source Name (DSN) for ODBC (EDM 2003.21 Single User Db).

---

**Using the Default Account**

The default administrator account (i.e., 'sa') should NOT be used to enter data or run applications besides MSDEUtils and when configuring security in the EDM Administration Utility.

---

1. To create an MSDE database if one has not been created before, run the MSDE Administration utility installed with the Engineer's Desktop 2003.21 release. This utility can be found in the Windows Start menu as follows:

    **Start > Programs > Landmark Engineer's Desktop 2003.21 > Tools > MSDE Administration**

---

**Note**

---

2.   From the Landmark EDM MSDE Utilities window, use the default
     path for the MSDE Directory or click the **...** button to browse to the
     location where the MSDE Server will be installed. The default
     location is:

     <install directory>\EDM\Databases

3.   Click the **OK** button to begin the installation of the MSDE Server.
     The progress of the installation is shown in the Status area of the
     MSDE Utility window.

4.   When the message "*Configuration successful*" appears in the
     status window, the Microsoft SQL Server Desktop Engine is
     installed.

5.   When the message "*Database <database name> attached. Users
     and DSN created*." appears in the status window, a new instance of
     the EDM database creation is complete.

---

**Rebooting:**

Rebooting the PC is not necessary.

---

# Backing Up the EDM MSDE Database (Pre-5000.0.0 Releases)

To back up the EDM database from within the MSDE Administration utility:

1. Follow the menu path:
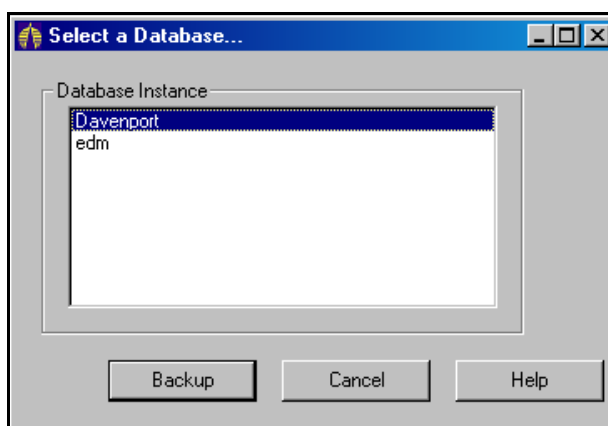
   **Tools > Backup Database**

   The *Select a Database...* window appears.



2. Select the database to be backed up in the **Database Instance** area.

3. Click the **Backup** button.

4. Navigate to the location where the backup of the database will be stored.

5. Enter a **File name** for the backed up database.

6. Click **Save** to save a backup of the database.

   OR

7.  Click **Cancel** to return to the main window. A message will appear stating, "*SQL Server BackupFile was not specified*". Click **OK**.

---

**Backup Permissions**

Special permissions are required to backup a database. Permissions can be added to a user profile in the EDM Administration utility. Ensure that default edm users have permissions.

---

8.  Click **Cancel** to return to the main window.

9.  Click **Exit** to exit the MSDE Administration utility and close the window.

# Restoring the EDM MSDE Database (Pre-5000.0.0 Releases)

To restore the EDM database from within the MSDE Utility:

1.  Follow the menu path:

    **Tools > Restore Database**

    The *Select a Database Backup File* window appears.
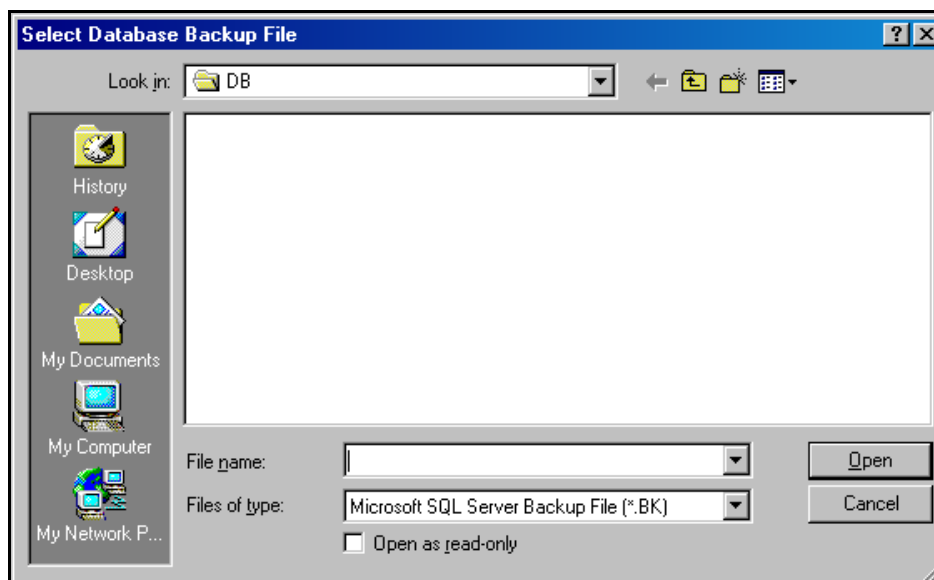


2.  Browse to the database file that will be used to restore the EDM database.

3.  Select the database to be restored and click **Open**.

    > **Applications Running Against MSDE**
    >
    > The restoration of a database will impact all users/applications, as the database being used will be replaced by a backup copy. Ensure that no applications are running against the MSDE instance.

    The Restore from Backup window appears.

4.  Select a database in the Select a backup to Restore... area.

5.  Click **OK** to return to the MSDE Utility window. The database is restored and the database files that were replaced is renamed with a _00x suffix.

    OR

6.  Click **Cancel** to return to the main window. A message will appear stating, "*SQL Server BackupFile was not specified.*" Click **OK**.

7.  Click **Exit** to exit the MSDE Administration utility and close the window.

# Installing Additional or Replacing EDM MSDE Databases (Pre-5000.0.0 Releases)

The MSDE Administration utility attaches the database files (.MDF and .LDF) to SQL Server and creates an ODBC connection to the database.

From the Windows Start menu launch the MSDE Administration utility.

**Start > Programs > Landmark Engineer's Desktop 2003.21 > Tools > MSDE Administration**

The *Landmark EDM MSDE Utility* window appears.
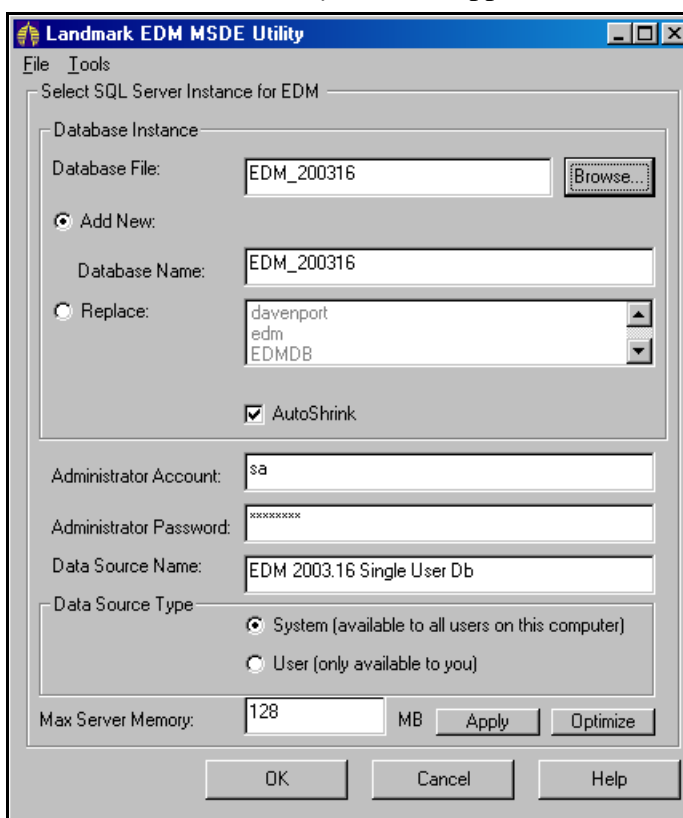


1.  Click the **Browse** button to navigate to the location of the database files (e.g., edm_200321.mdf)

2.  To add a new database instance, select the **Add New** option and enter the name of the new database instance in the field provided.

Alternatively, to replace the MSDE database instance, select the **Replace** option and select the database instance to be replaced from the list provided. A clean EDM database will overwrite the existing EDM instance.

3.  Activate the **AutoShrink** checkbox to enable the autoshrink setting. This setting will reduce the database file size by removing unused space periodically. There will be no requirement to manually compact the database.

4.  If the default administrator account (sa) created when MSDE is initially installed has been removed, enter the appropriate **Administrator account** name and **Administrator password**.

5.  Enter the new **Data Source Name**.

---

**Overwriting ODBC Connections**

Verify that the **Data Source Name** does not currently exits. Selecting an existing Data Source Name will overwrite the ODBC connection to the current database.

---

6.  Enter the Maximum Server Memory.

7.  Click **OK**.

A message appears when the new instance of the EDM database has been created.
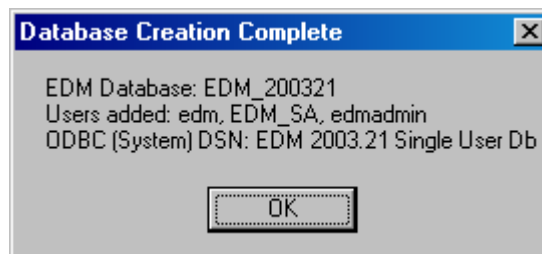


8.  Click **OK**.

# MSDE Installation Issues

### MSDE Utils Error Description

For certain PCs the Microsoft Desktop Engine (MSDE) install may sometimes report the following error when configuring the new MSDE server:

```
MSDE Utils
Error occurred in
AttachDatabase()
Error Number: 5105
Error Source: Microsoft SQL-DMO (ODBC
SQLSDtate:42000)
Error Description: [Microsoft][ODBC SQL Server
Driver}Device activation error. The physical file
name 'C:\Landmark\EDM\Common-Files\Data
Services\Database\edm.mdf' may be incorrect'
```

This error occurs if MSDE is already installed on the PC and is still running while its database files are deleted.

To resolve this error, prior to installing EDM:

- ensure that MSDE has been uninstalled

- reboot the computer to ensure all components have been removed

- run the EDM installation

### SQL Server Desktop Engine Error Description

For certain PCs the Microsoft Desktop Engine (MSDE) install may sometimes report the following error when configuring the new MSDE server:
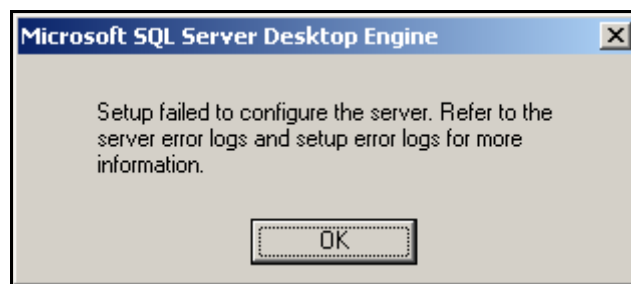
This error occurs due to the Microsoft MSDE installation attempting to install Microsoft Office demonstration databases *pubs* and *northwind*. These are optional databases which may have been set when the user installed Microsoft Office.

Click **OK** and continue with the installation.

## SQL Server 7.0 Server Installation Issue

The Common Installer prompts for the installation of Microsoft's MSDE (Microsoft Desktop Engine), which is the standalone database supported by EDM. Please note that if you are installing MSDE on a machine that already has SQL Server 7 Server installed, the following errors may occur:

- Microsoft SQL Server Desktop Engine

```
Internal Error 2755. 1632,
D:\MSDE\msde\setup\sqlrun.msi
```

- Microsoft SQL Server Desktop Engine

```
An internal error occurred during install (failed
to load package id), Contact Microsoft Technical
Support.
```

- MSDE Utils

```
SQL Server start failed.
SQL-DMO error: 429 ActiveX component can't create
object
```

- MSDE Utils

```
Error occurred in
AttchDatabase()
Error Number: 429
Error Source: MSDEUtils
Error Description: ActiveX component can't create
object
```

The following solution must be implemented **prior** to running the EDT Common Installation.

1. Rename SQLBOOT.DLL located in the C:\MSSQL7\BIN.

2. Run the Common Installation.

3. Return the SQLBOOT.DLL file to its original name.

## SQL Server 2000 Client Tools Installation Issue

The following procedure must be implemented on PC's that have SQL Server 2000 Client Tools installed to successfully configure the MSDE database and data sources.

During the Engineer's Desktop 2003.21 installation you are prompted to install the Engineer's Desktop MSDE database.

1. To install MSDE Databases on this machine select **Yes**.

2. If SQL Server 2000 Client Tools is present on the PC the following message appears.
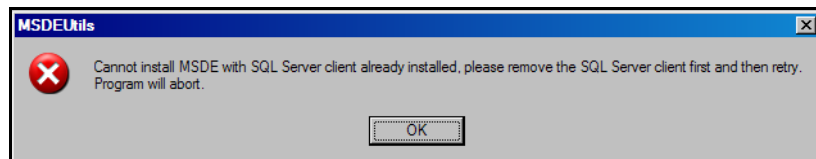


3. Click **OK** to continue with the Engineer's Desktop installation. The MSDE database is not installed at this time.

To install the MSDE database once the Engineer's Desktop installation has been fully completed, follow these steps:

- Uninstall SQL Server 2000 Client Tools

- Install the MSDE database. "Using the MSDE Administration Utility (Pre-5000.0.0 Releases)" on page 92 contains instructions for installing the MSDE database.

- Reinstall SQL Server 2000 Client Tools

# *Appendix C: Upgrading Older SQL/MSDE Databases*

## Overview

If you are currently using an EDM SQL Server/MSDE/SQL Server2005/SQL Server 2005 Express database version 2003.14 *or higher*, it is highly suggested that you use the Multi-Version Upgrade Utility (EDMPatchDB.exe) to upgrade your EDM database to 5000.1.

However, if you elect *not* to use the Multi-Version Database Upgrade Utility, this chapter outlines the procedures to upgrade older versions of EDM to version 5000.1 using sequential upgrade scripts.

Once the database has been upgraded to 5000.1, you will no longer be able to access it using the older EDT applications. To use this utility to upgrade, refer to "The Multi-Version Database Upgrade Utility" on page 48.

If you intend to run both older and 5000.1 EDT applications, make a copy of your older EDM database, and upgrade the copy to 5000.1. That way you can access your older database with the older EDT applications, and the 5000.1 EDM database with the 5000.1 EDT applications.

**IMPORTANT:**

- EDT 5000.1 is a new product. If you are currently using an EDM database version that is 2003.14 - 5000.0.0, you must install 5000.1, then upgrade your database to 5000.1. The new Multi-Version Upgrade Utility (EDMPatchDB.exe) will do this for you.

- EDT 5000.1 can co-exist with previous versions of EDT on the same machine. However, LAM 5000 **will not** co-exist with previous versions of LAM (FLEXlm license server) on the same machine. Previous versions of LAM **must be uninstalled** before you install 5000.1. To run EDT 5000.1 and a previous version of the EDT applications on the same machine, you must point one or both versions of EDT to a LAM server located on a remote machine, since only one version of LAM can run locally.

Refer to the *EDT Drilling Installation Guide* for complete details.

## *Database Upgrade Path in a Nutshell*

The version of EDM you are currently on determines the upgrade path you must take. Upgrades are *sequential*. This path is illustrated in the tables below:

### SQL/MSDE Upgrades

| Current EDM Version | Upgrade Path to 5000.1 |
|---|---|
| **5000.0.0** | **Run EDM_5000_1_0_SQL_Update.exe (to go from 5000.0.0 to 5000.1).** For details, see "Upgrade a SQL Database - Automated Mode" on page 50. |
| **2003.21** | **Run EDM_21_0_0_SQL_Update.exe (to go from 2003.21.x to 5000.0.0).** For details, see "Upgrading SQL/MSDE EDM 2003.21 Database" on page 107. |
| **2003.16** or **2003.16.1** | **Run 2003_16_0_0_SQL_Update.exe (to go from 2003.16.x to 2003.21).** For details, see "Upgrading SQL/MSDE EDM 2003.16 or 2003.16.1.0 Database" on page 116. |
| **2003.14** or **2003.14.1** | **Run 2003_14_0_0_Upgrade_SQL.exe (to go from 2003.14.x to 2003.16).** For details, see "Upgrading SQL/MSDE EDM 2003.14 or 2003.14.1.0 Database" on page 124. |
| **2003.11** | **Call Landmark Support** |

# Upgrading 5000.0.0 EDM SQL Server 2005/SQL Server 2005 Express Database

To upgrade a 5000.0.0 EDM SQL Server 2005/SQL Server 2005 Express database to 5000.1, run the Multi-Version Database Upgrade utility (EDMPatchDB.exe). See see "Upgrade a SQL Database - Automated Mode" on page 50 for details.

# Upgrading SQL/MSDE EDM 2003.21 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.21 SQL Server/MSDE database to an EDM 5000.0.0 SQL Server 2005/SQL Server 2005 Express database.

---

**Database Upgrade of Oracle and SQL Server**

The Database Upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

---

The database upgrade scripts are located in:

<install directory>\EDM\Updates\SQLServer

---

**XML Export/Import Option**

If your EDM 2003.21 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling Applications on-line help.

---

Landmark recommends that a database backup is completed prior to running the database upgrade.

---

**Upgrade to EDM Engineering Release 2003.21 Patches**

Release 5000.0.0 does *not* require patches to be applied prior to running the Database Upgrade. The 5000.0.0 Database Upgrade requires a 2003.21 database or later.

---

## *Required Tools and Installation*

### Database Upgrade

#### *About the Database Utility*

The EDM_5000_0_0_SQL_Update.exe runs the files and scripts used when upgrading the Drilling EDM database to 5000.0.0.

---

**Internal EDM Accounts and MSDE Database Upgrades**

The default user accounts (edm, edmadmin, and edm_sa) in MSDE that already exist in SQL Server 2005 will have their passwords upgraded to 'Landmark1' during migration. All other users in MSDE that already exist in SQL Server 2005 will keep the same SQL Server 2005 password.

---

#### *Locating and Installing the Database Upgrade Tool*

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder:

> \<install directory>\EDM\Updates

#### *Manual Upgrade*

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

- MSDE database manual upgrades to Microsoft SQL Server 2005 Express: contact Landmark Support.

## *Upgrade a Stand-alone SQL Database*

### Upgrade Procedures

#### *2003.21 EDM ODBC Data Source*

The 2003.21 database must be configured with an ODBC connection prior to running the Database Upgrade. The MSDE Administration utility can be used to create an ODBC data source for these databases. This procedure is outlined in "Installing Additional or Replacing EDM MSDE Databases (Pre-5000.0.0 Releases)" on page 98.

### *Run Automated SQL Server Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists and may overwrite/delete any additional picklist records or modifications made. To edit the picklist upgrade scripts before running them, please select the **Run Manual** method when running the Database Upgrade to unzip the scripts and make your changes before upgrading your database.

The following scripts create or modify picklists:

* Pk_structure.ora, pk_structure.syb
* Pk_catalog.ora, pk_catalog.syb
* Rannoch_pk_structure.ora, Rannoch_pk_structure.syb

The following scripts create or modify picklist contents:

* Pk_data_commit.sql
* Rannoch_pk_data.sql

The following scripts affect picklist access and security:

* Pk_catalog_grants.sql
* Pk_public_synonyms.ora
* Rannoch_pk_grants.sql

.ora scripts are for Oracle only.

.syb scripts are for SQL Server/MSDE only.

.sql scripts are for Oracle and SQL Server/MSDE.

---

1. From the `<install directory>\EDM\Updates` directory, run the *EDM_5000_0_0_DB_Update.exe* executable.
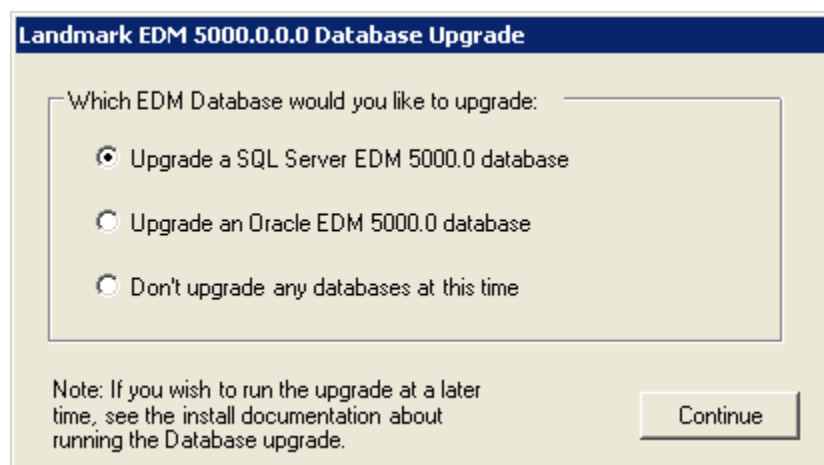
---

**Log Files**

The Upgrade utility will prompt you to save log files once the upgrade has completed.

---

**PK Table Login**

During the database upgrade the program will attempt to login to the EDM
Picklist table schema (PK) using the username and password set in the
*Db_upd.INI* file; PK/landmark is used by default. If this login fails, the
upgrade attempts to login using a password of PK. If this login also fails, the
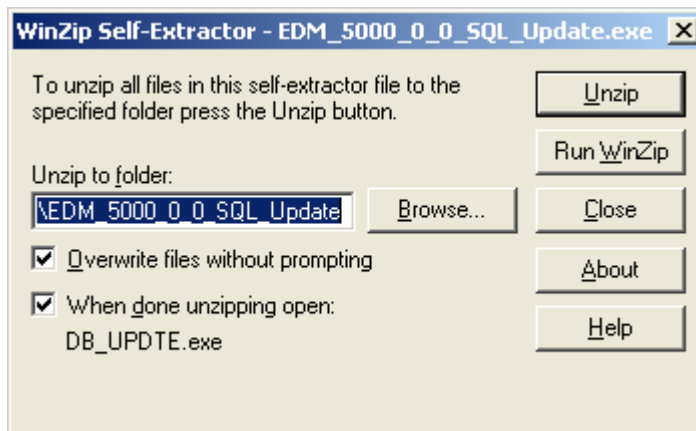user is then prompted for the PK user password during the upgrade process.

Landmark recommends verification of the PK login user name and
password in the *Db_upd.INI* file prior to running the upgrade.

The *Landmark EDM 5000.0.0 Database Upgrade* dialog appears.
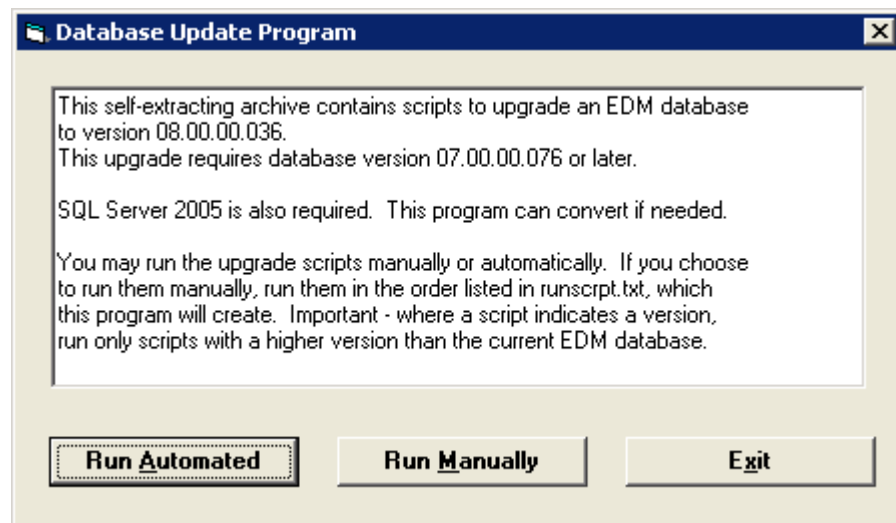


2.   Select **Upgrade a SQL Server EDM 5000.0 database** option and
     click **Continue**.

     The *Winzip Self-Extractor* dialog appears.

3.   Enter the temporary location where the scripts will be copied and select **Unzip**.

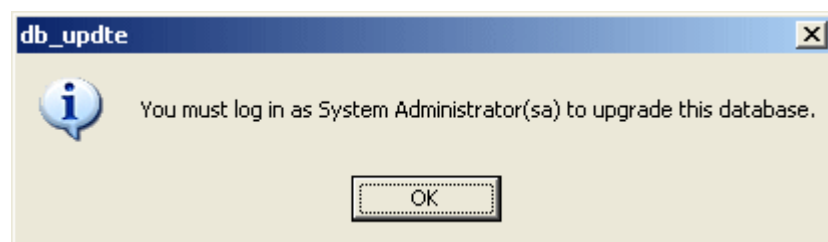4.   When the files have been unzipped click **OK**.

The *Database Update Program* dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes* for the final release database version.)



This dialog describes the upgrade scripts that will run.
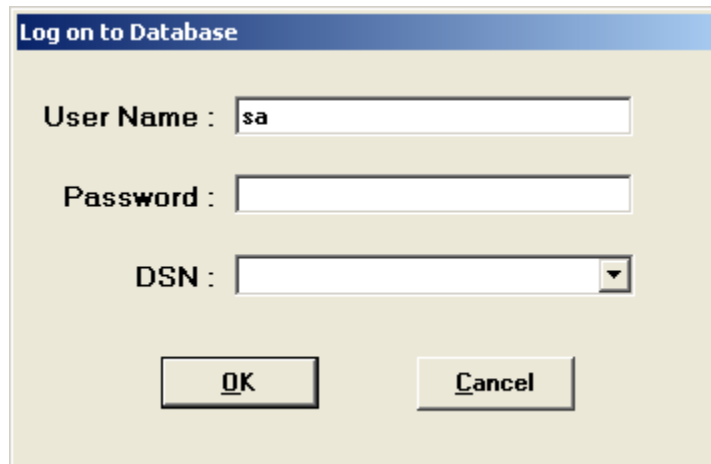
5.   Choose **Run Automated** to run the upgrade program in automatic mode.

The following dialog appears:



6.   Click **OK**.

The database login screen displays.



7.  Enter the System Administrator **User Name** and **Password**.

> **Database System Administrator**
>
> *You must login as Database System Administrator "DBA" to perform this upgrade.* The default password for the *sa* user is *landmark*.
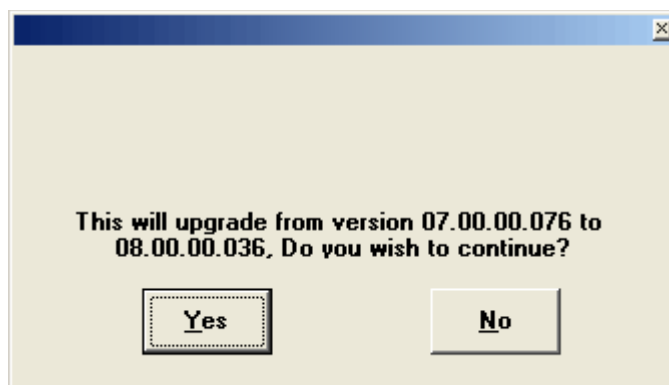
8.  Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.21 Single User Db), and then click **OK**.

9.  To detach the existing MSDE database and upgrade it to SQL Server 2005, click **Yes**. If you click No or Cancel, the existing MSDE database will not be upgraded.

10. Enter the SQL Server 2005 database password: *Landmark1*, and then click **OK**.



A confirmation dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes* for the final release database version.)
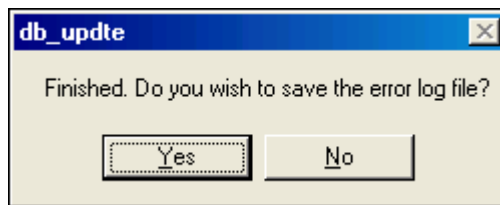


11. Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical upgrades taking approximately 10 minutes. Click **No** to abort the upgrade.

12. If no errors occur the following message appears.

13.  Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.



Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

---

### *Rename the Data Source*

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.21 Single User Db* to *EDM 5000.0.0 Single User Db*).

Test the database by launching one of the Engineer's Desktop 5000.0.0 drilling applications and logging into the upgraded database.

---

**IMPORTANT!**

The newly upgraded database *remains in the directory where it was located* for the EDT 2003.21 installation. You may choose to detach the database and relocate it to another location to help prevent inadvertent deletion.

---

The procedure is complete.

# Upgrading SQL/MSDE EDM 2003.16 or 2003.16.1.0 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.16 or 2003.16.1.0 SQL Server/MSDE database to an EDM 2003.21 SQL Server/MSDE database.

---

**Database Upgrade of Oracle and SQL Server**

The Database upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

---

The database upgrade scripts are located in

> <install directory>\EDM\Updates\SQLServer.

---

**XML Export/Import Option**

If your EDM 2003.16/2003.16.1.0 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling Applications on-line help.

---

Landmark recommends that a database backup is completed prior to running the database upgrade.

---

**Upgrade to EDM Engineering R2003.16 Patches**

Release 2003.21 does *not* require patches to be applied prior to running the Database upgrade. The 2003.21 Database upgrade requires a 2003.16 database or later.

---

## *Required Tools and Installation*

### **Database Upgrade**

#### *About the Database Utility*

The EDM_2003_21_0_0_SQL_Update.exe runs the files and scripts used when upgrading the Drilling EDM database to 2003.21.

---

### *Locating and Installing the Database Upgrade Tool*

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder:

```
<install directory>\EDM\Updates
```

### *Manual Upgrade*

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

• MSDE database manual upgrades: contact Landmark Support.

## Upgrade a Stand-alone SQL Database

### Upgrade Procedures

#### *2003.16/2003.16.1.0 EDM ODBC Data Source*

The 2003.16/2003.16.1.0 database must be configured with an ODBC connection prior to running the Database upgrade. The MSDE Administration utility can be used to create an ODBC data source for these databases. This procedure is outlined in "Installing Additional or Replacing EDM MSDE Databases (Pre-5000.0.0 Releases)" on page 98.

### *Run Automated SQL Server Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists and may overwrite/delete any additional picklist records or modifications made. To edit the picklist upgrade scripts before running them, please select the **Run Manual** method when running the Database upgrade to unzip the scripts and make your changes before upgrading your database.

The following scripts create or modify picklists:

- Pk_structure.ora, pk_structure.syb
- Pk_catalog.ora, pk_catalog.syb
- Rannoch_pk_structure.ora, Rannoch_pk_structure.syb

The following scripts create or modify picklist contents:

- Pk_data_commit.sql
- Rannoch_pk_data.sql

The following scripts affect picklist access and security:

- Pk_catalog_grants.sql
- Pk_public_synonyms.ora
- Rannoch_pk_grants.sql

.ora scripts are for Oracle only.

.syb scripts are for SQL Server/MSDE only.

.sql scripts are for Oracle and SQL Server/MSDE.

---

1. From the `<install directory>\EDM\Updates` directory, run the *EDM_2003_21_0_0_SQL_Update.exe* executable.
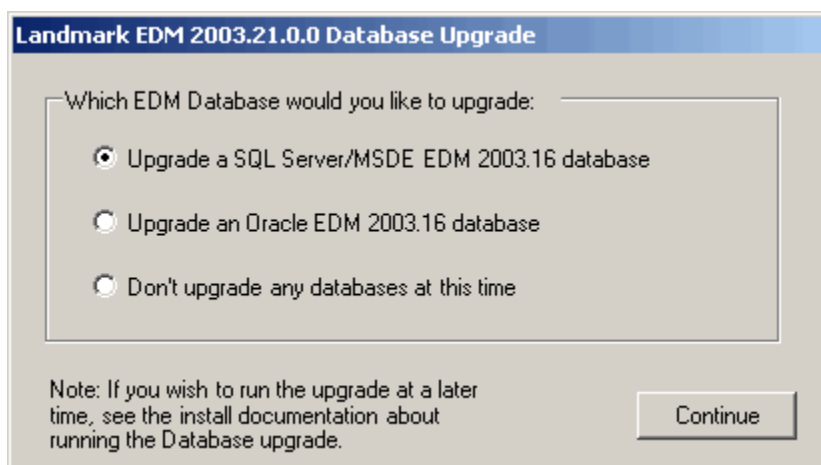
---

**Log Files**

The update utility will prompt you to save log files once the upgrade has completed.

---

**PK Table Login**

During the database upgrade the program will attempt to login to the EDM Picklist table schema (PK) using the username and password set in the *Db_upd.INI* file; PK/landmark is used by default. If this login fails, the upgrade attempts to login using a password of PK. If this login also fails, the user is then prompted for the PK user password during the upgrade process.
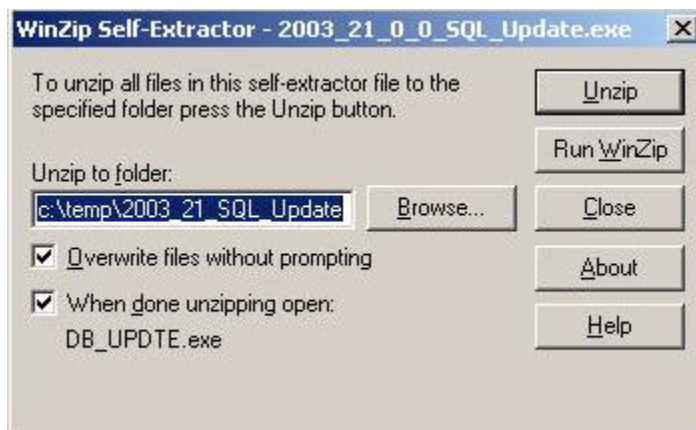
Landmark recommends verification of the PK login user name and password in the *Db_upd.INI* file prior to running the upgrade.

The *Landmark EDM 2003.21.0.0 Database Upgrade* dialog appears.
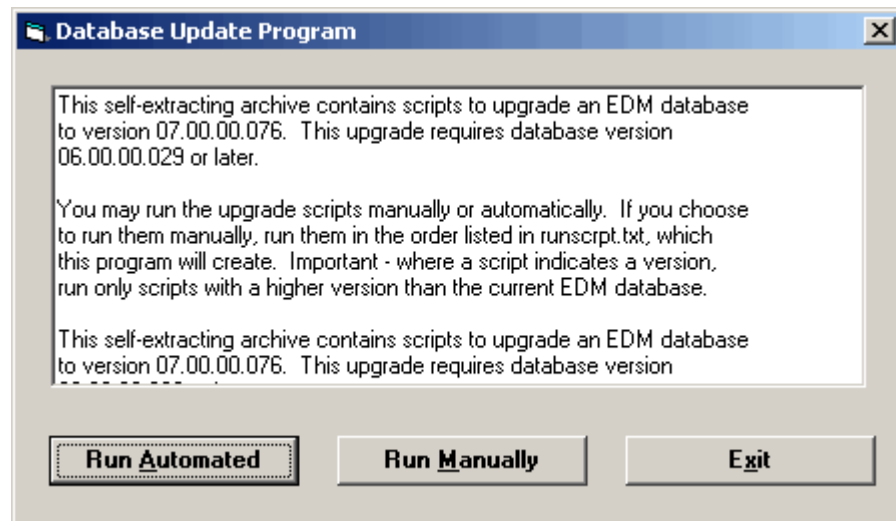


2. Select **Upgrade a SQL Server/MSDE EDM 2003.16 database** option and click **Continue**.

   The *Winzip Self-Extractor* dialog appears.

3. Enter the temporary location where the scripts will be copied and select **Unzip**.

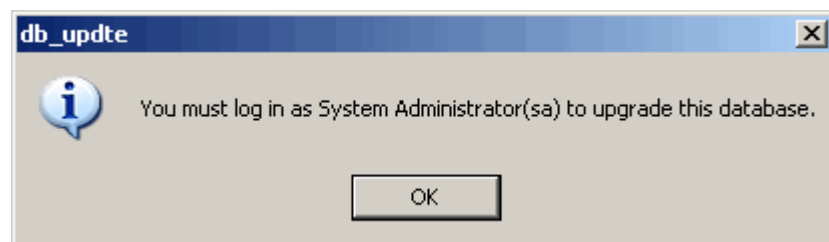4. When the files have been unzipped click **OK**.

   The *Database Update Program* dialog appears. (Note that the database version numbers may differ from what is shown here. Check the EDT 2003.21 Drilling Summary Level Release Notes for the final release database version.)



   This dialog describes the upgrade scripts that will run.
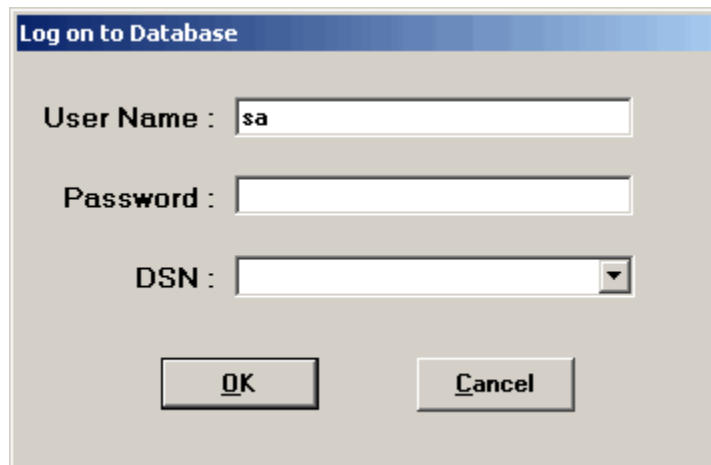
5. Choose **Run Automated** to run the upgrade program in automatic mode.

   The following dialog displays:



6. Click **OK**.
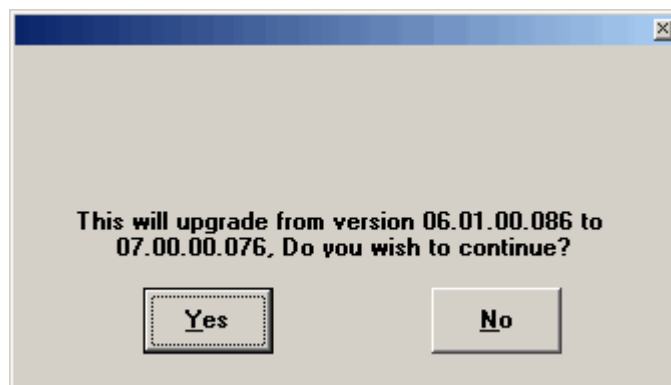
The database login screen is displayed.



7.   Enter the System Administrator **User Name** and **Password**.

---

**Database System Administrator**

*You must login as Database System Administrator "DBA" to perform this upgrade.* The default password for the *sa* user is *landmark*.

---

8.   Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.16 Single User Db).

     A confirmation dialog appears. (Note that the database version numbers may differ from what is shown here. Check the EDT 2003.21 Drilling Summary Level Release Notes for the final release database version.)



9.   Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical MSDE upgrades taking approximately 30 minutes. Click **No** to abort the upgrade.

10.  If no errors occur the following message appears.



11.  Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.



Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

### *SQL Plus Not Found Error*

#### Problem

While running the Database upgrade to upgrade a SQL Server EDM database an error occurs because SQL Plus utility cannot be found. The message appears as follows:

```
The SQL Plus utility was not found under the
specified Oracle Directory, please check ODBC setup
for this source.
```

This error when multiple installs of Oracle exist.

#### Solution

To solve this problem, verify the correct Oracle Home is selected using the "Home Selector" tool provided by Oracle. The path defined as Oracle Home should have sqlplus.exe located within it. If sqlplus.exe is located under a different folder, copy it to the Oracle Home location.

### *Rename the Data Source*

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.16 Single User Db* to *EDM 2003.21 Single User Db*).

Test the database by launching one of the Engineer's Desktop 2003.21 drilling applications and logging into the upgraded database.

The procedure is complete.

# Upgrading SQL/MSDE EDM 2003.14 or 2003.14.1.0 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.14 or 2003.14.1.0 SQL Server/MSDE database to an EDM 2003.16 SQL Server/MSDE database.

---

**Database Upgrade of Oracle and SQL Server**

The Database upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

---

The database upgrade scripts are located in:

> <install directory>\EDM\Updates\SQLServer.

---

**XML Export/Import Option**

If your EDM 2003.14/2003.14.1.0 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling Applications on-line help.

---

Landmark recommends that a database backup is completed prior to running the database upgrade.

---

**Upgrade to EDM Engineering R2003.14 Patches**

Release 2003.16 does *not* require patches to be applied prior to running the Database upgrade. The 2003.16 Database upgrade requires a 2003.14 database (version 05.00.00.077) or later.

---

## *Required Tools and Installation*

### Database Upgrade

#### *About the Database Utility*

The 2003_16_0_0_SQL_Update.exe runs the files and scripts used when upgrading the Drilling EDM database to 2003.16.

---

### *Locating and Installing the Database Upgrade Tool*

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder

<install directory>\EDM\Updates

### *Manual Upgrade*

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

• MSDE database manual upgrades - Contact Landmark Support.

# Upgrade a Stand-alone SQL Database

## Upgrade Procedures

### *2003.14/2003.14.1.0 EDM ODBC Data Source*

The 2003.14/2003.14.1.0 database must be configured with an ODBC connection prior to running the Database upgrade. The MSDE Administration utility can be used to create an ODBC data source for these databases. This procedure is outlined in "Installing Additional or Replacing EDM MSDE Databases (Pre-5000.0.0 Releases)" on page 98.

## *Run Automated SQL Server Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists
and may overwrite/delete any additional picklist records or modifications made.
To edit the picklist upgrade scripts before running them, please select the **Run
Manual** method when running the Database upgrade to unzip the scripts and
make your changes before upgrading your database.

The following scripts contain insert and upgrade statements for picklists:

- air_drilling_picklist_data.sql
- fishing_picklist_data.sql
- ow_picklist_data.sql
- pbci_picklist_data.sql
- prod_equip_fail_picklist_data.sql

The following scripts setup privileges for picklist tables:

- misc_pk_grants.sql
- ow_pk_grants.sql
- air_drilling_picklist_grants.sql
- fishing_picklist_grants.sql
- pbci_picklist_grants.sql
- prod_equip_fail_picklist_grants.sql

---

1. From the `<install directory>\EDM\Updates` directory, run the
   *EDM_2003_16_0_DB_Update.exe* executable.
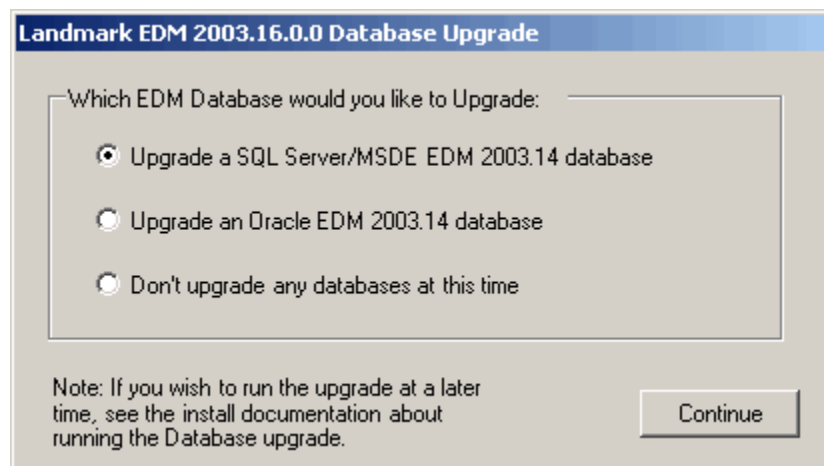
---

**Log Files**

The 2003.16 Database upgrade utility will prompt you to save log files once
the upgrade has completed.

---

**PK Table Login**

During the database upgrade the program will attempt to login to the EDM
Picklist table schema (PK) using the username and password set in the
*Db_upd.INI* file; PK/landmark is used by default. If this login fails, the
upgrade attempts to login using a password of PK. If this login also fails, the
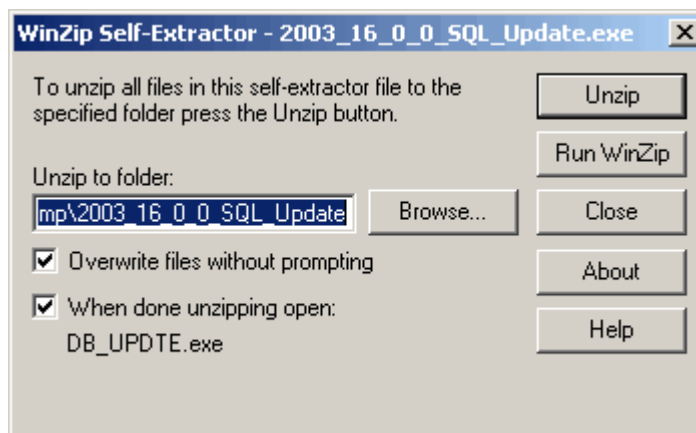user is then prompted for the PK user password during the upgrade process.

Landmark recommends verification of the PK login user name and
password in the *Db_upd.INI* file prior to running the upgrade.

---

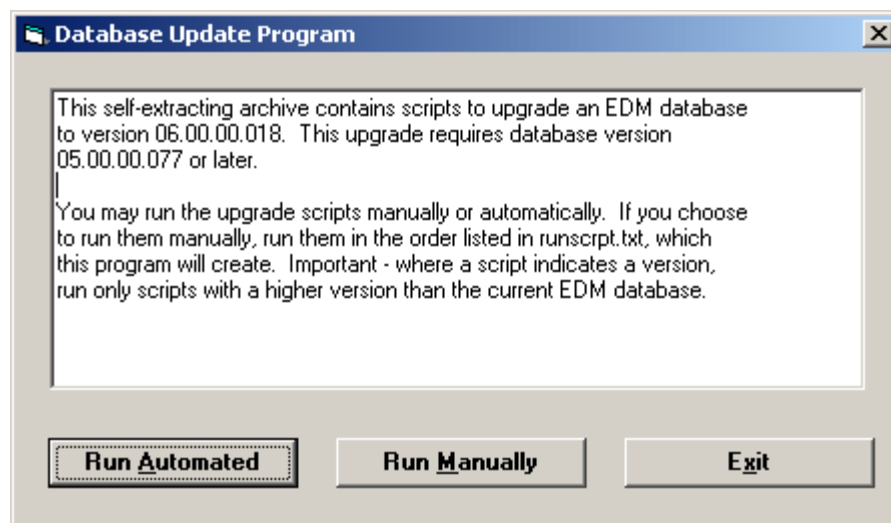The *Landmark EDM 2003.16.0.0 Database Upgrade* dialog appears.



2.   Select **Upgrade a SQL Server/MSDE EDM 2003.14 database** option and click **Continue**.

The *Winzip Self-Extractor* dialog appears.



3.   Enter the temporary location where the scripts will be copied and select **Unzip**.

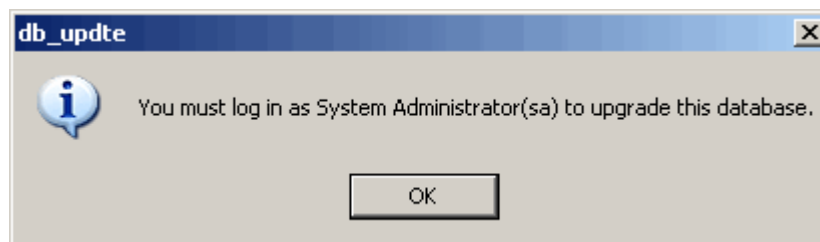4.   When the files have been unzipped click **OK**.

The *Database Update Program* dialog appears.



This dialog describes the upgrade scripts that will run.
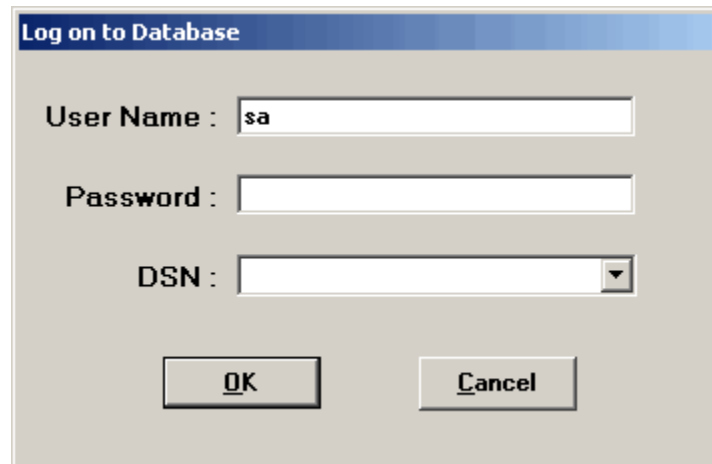
5.  Choose **Run Automated** to run the upgrade program in automatic mode.

    The following dialog appears:



6.  Click **OK**.
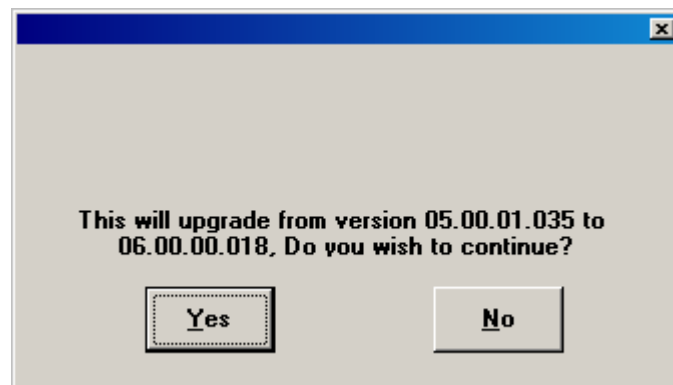
The database login screen is displayed.



7.  Enter the System Administrator **User Name** and **Password**.

---

**Database System Administrator**

*You must login as Database System Administrator "DBA" to perform this upgrade.* The default password for the *sa* user is *landmark*.

---

8.  Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.14 Single User Db).

A confirmation dialog appears.



This will upgrade from version 05.00.01.035 to 06.00.00.018, Do you wish to continue?

9.  Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical MSDE upgrades taking approximately 30 minutes. Click **No** to abort the upgrade.

10. If no errors occur the following message appears.



11. Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.



Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

### SQL Plus Not Found Error

#### Problem

While running the Database upgrade to upgrade a SQL Server EDM database an error occurs because SQL Plus utility cannot be found. The message appears as follows:

```
The SQL Plus utility was not found under the
specified Oracle Directory, please check ODBC setup
for this source.
```

This error when multiple installs of Oracle exist.

#### Solution

To solve this problem, verify the correct Oracle Home is selected using the "Home Selector" tool provided by Oracle. The path defined as Oracle Home should have sqlplus.exe located within it. If sqlplus.exe is located under a different folder, copy it to the Oracle Home location.

### Rename the Data Source

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.14 Single User Db* to *EDM 2003.16 Single User Db*).

Test the database by launching one of the Engineer's Desktop 2003.16 drilling applications and logging into the upgraded database.

The procedure is complete.

### Run the 2003.21 Database Upgrade

The 2003.16 database is now ready to be upgraded to version 2003.21.

# Upgrading SQL/MSDE EDM 2003.11 Database

If your database is version 2003.11, call Landmark Support to upgrade.

# Manual Upgrades

## *Manually Upgrade SQL and MSDE Databases*

Landmark strongly recommends using the Automatic Upgrade procedures to upgrade 2003.21 MSDE EDM databases to Microsoft SQL Server 2005 Express, Release 5000.0.0. For troubleshooting, or for special cases where a manual upgrade is desired, please contact Landmark Support for assistance.

# *Appendix D: Upgrading Older Oracle Databases*

## Overview

If you are currently using an EDM Oracle database version 2003.14 *or higher*, it is highly suggested that you use the Multi-Version Upgrade Utility (EDMPatchDB.exe) to upgrade your EDM database to 5000.1.

However, if you elect *not* to use the Multi-Version Database Upgrade Utility, this chapter outlines the procedures to upgrade older versions of EDM to version 5000.1 using sequential upgrade scripts.

Once the database has been upgraded to 5000.1, you will no longer be able to access it using the older EDT applications. To use this utility to upgrade, refer to "The Multi-Version Database Upgrade Utility" on page 48.

If you intend to run both older and 5000.1 EDT applications, make a copy of your older EDM database, and upgrade the copy to 5000.1. That way you can access your older database with the older EDT applications, and the 5000.1 EDM database with the 5000.1 EDT applications.

**IMPORTANT:**

- EDT 5000.1 is a new product. If you are currently using an EDM database version that is 2003.14 - 5000.0.0, you must install 5000.1, then upgrade your database to 5000.1. The new Multi-Version Upgrade Utility (EDMPatchDB.exe) will do this for you.

- EDT 5000.1 can co-exist with previous versions of EDT on the same machine. However, LAM 5000 **will not** co-exist with previous versions of LAM (FLEXlm license server) on the same machine. Previous versions of LAM **must be uninstalled** before you install 5000.1. To run EDT 5000.1 and a previous version of the EDT applications on the same machine, you must point one or both versions of EDT to a LAM server located on a remote machine, since only one version of LAM can run locally.

Refer to the *EDT Drilling Installation Guide* for complete details.

## *Database Upgrade Path in a Nutshell*

The version of EDM you are currently on determines the upgrade path you must take. Upgrades are *sequential*. This path is illustrated in the tables below:

### Oracle Upgrades

| Current EDM Version | Upgrade Path to 5000.1 |
|---|---|
| **5000.0.0** | **Run EDM_5000_1_0_ORA_Update.exe (to go from 5000.0.0 to 5000.1).** For details, see "Upgrade an Oracle Database - Automated Mode" on page 56 |
| **2003.21** | **Run EDM_21_0_0_ORA_Update.exe (to go from 2003.21.x to 5000.0.0).** For details, see "Upgrading Oracle EDM 2003.21 Database" on page 139 |
| **2003.16** or **2003.16.1** | **Run EDM_2003_16_0_0_ORA_Update.exe (to go from 2003.16.x to 2003.21).** For details, see "Upgrading Oracle EDM 2003.16 or 2003.16.1.0 Database" on page 146. |
| **2003.14** or **2003.14.1** | **Run 2003_14_0_0_Upgrade_Oracle.exe (to go from 2003.14.x to 2003.16).** For details, see "Upgrading Oracle EDM 2003.14 or 2003.14.1.0 Database" on page 153. |
| **2003.11** | **Call Landmark Support** |

# Upgrading 5000.0.0 EDM Oracle Database

To upgrade an Oracle EDM 5000.0.0 database to 5000.1, run the Multi-Version Database Upgrade utility (EDMPatchDB.exe). See see "Upgrade an Oracle Database - Automated Mode" on page 56 for details.

# Upgrading Oracle EDM 2003.21 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.21 Oracle 10g database to an EDM 5000 Oracle 10g database.

---

**Database Upgrade of Oracle and SQL Server**

The Database Upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL, nor SQL to Oracle.

---

The database upgrade scripts are located in:

<install directory>\EDM\Updates\Oracle.

---

**XML Export/Import Option**

If your EDM 2003.21 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling Applications on-line help.

---

Landmark recommends that a database backup is performed prior to running the database upgrade.

---

**Upgrade to EDM Engineering Release 2003.21 Patches**

Release 5000.0.0 does *not* require patches to be applied prior to running the Database upgrade script. The 5000.0.0 Database upgrade requires a 2003.21 database or later.

---

## *Required Tools and Installation*

### **Database Upgrade**

#### *About the Database Utility*

The EDM_5000_0_0_ORA_DB_Update.exe runs the files and scripts used when upgrading the Drilling EDM database to 5000.0.0.

---

### Locating and Installing the Database Upgrade Tool

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder:

<install directory>\EDM\Updates

### Manual Upgrade

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

*   Landmark recommends running the upgrades in automatic mode

*   If manual upgrade is preferred, see "Manually Upgrade Oracle Databases" on page 162.

# *Upgrade an Oracle Database*

## Upgrade Procedures

### *Run Automated Oracle Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists and may overwrite/delete any additional picklist records or modifications made. To edit the picklist upgrade scripts before running them, please select the **Run Manual** method when running the Database upgrade to unzip the scripts and make your changes before upgrading your database.

The following scripts create or modify picklists:

- Pk_structure.ora, pk_structure.syb
- Pk_catalog.ora, pk_catalog.syb
- Rannoch_pk_structure.ora, Rannoch_pk_structure.syb

The following scripts create or modify picklist contents:

- Pk_data_commit.sql
- Rannoch_pk_data.sql

The following scripts affect picklist access and security:

- Pk_catalog_grants.sql
- Pk_public_synonyms.ora
- Rannoch_pk_grants.sql

.ora scripts are for Oracle only.

.syb scripts are for SQL Server/MSDE only.

.sql scripts are for Oracle and SQL Server/MSDE.

---

1. From the `<install directory>\EDM\Updates` directory, run the *EDM_5000_0_0_ORA_Update.exe* executable.
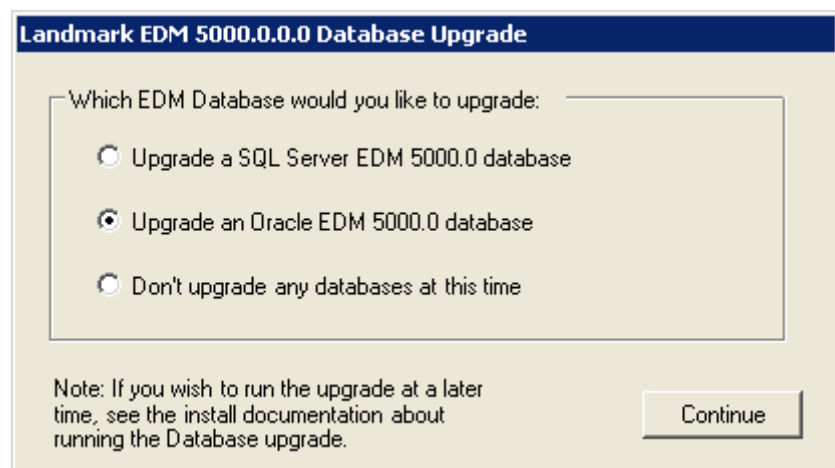
---

**Log Files**

The upgrade utility will prompt you to save log files once the upgrade has completed.

---

> **PK Table Login**
>
> During the database upgrade the program will attempt to login to the EDM Picklist table schema (PK) using the username and password set in the *Db_upd.INI* file; PK/landmark is used by default. If this login fails, the upgrade attempts to login using a password of PK. If this login also fails, the user is then prompted for the PK user password during the upgrade process.
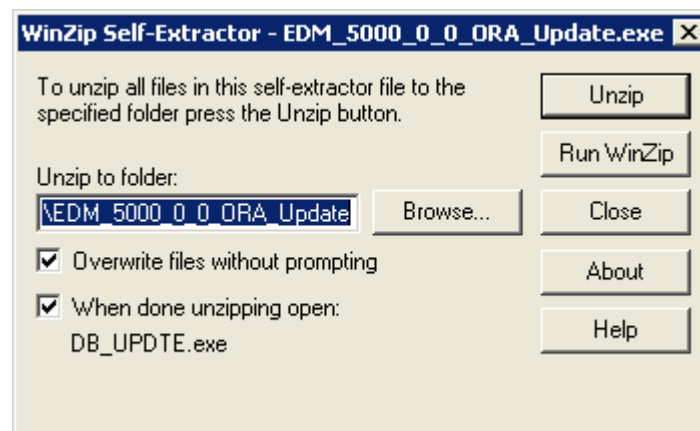>
> Landmark recommends verification of the PK login user name and password in the *Db_upd.INI* file prior to running the upgrade.

The *Landmark EDM 5000.0.0 Database Upgrade* dialog appears.



2.  Select **Upgrade an Oracle EDM 5000.0 database** option and click **Continue**.

    The *Winzip Self-Extractor* dialog appears.

3.  Enter the temporary location where the scripts will be copied and select **Unzip**.

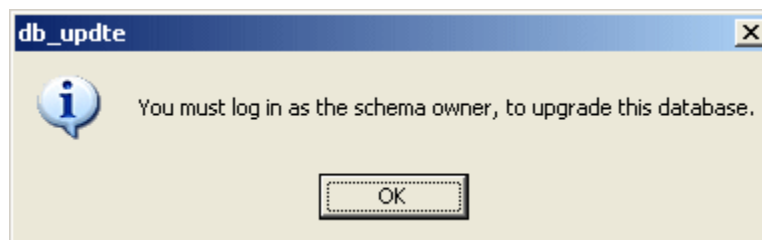4.  When the files have been unzipped click **OK**.

    The *Database Update Program* dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes* for the final release database version.)
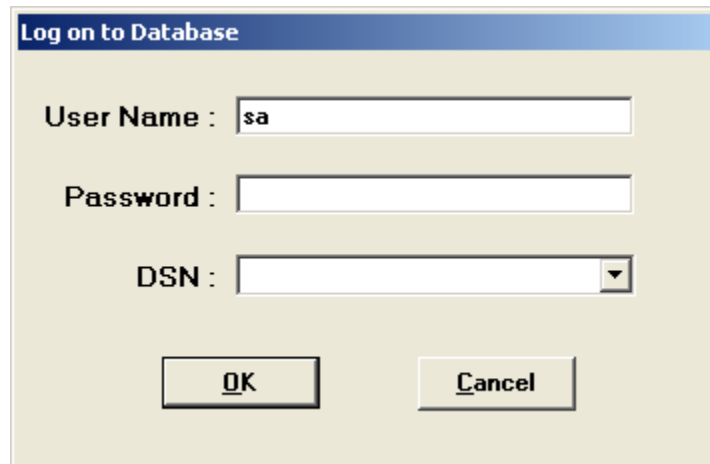


This dialog describes the upgrade scripts that will run.

5.  Choose **Run Automated** to run the upgrade program in automatic mode.

    The following dialog displays:



6.  Click **OK**.

The following dialog displays.



7. Enter the System Administrator **User Name** and **Password**.

---

**Database System Administrator**

*You must login as Database System Administrator "DBA" to perform this upgrade.* The default password for the *sa* user is *Landmark1*.
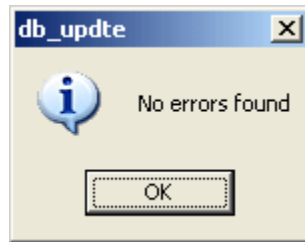
---

8. Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.21 Single User Db).

A confirmation dialog appears. (Note that the database version numbers may differ from what is shown here. Check the *Engineer's Desktop 5000.0.0 Drilling Summary Level Release Notes* for the final release database version.)
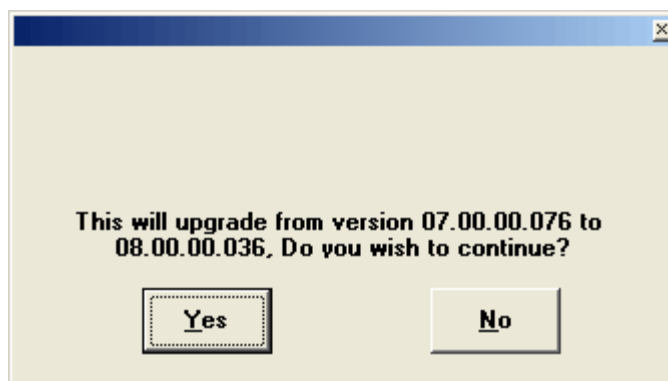


9. Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical upgrades taking approximately 20 minutes. Click **No** to abort the upgrade.

---

10. If no errors occur the following message appears.



11. Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.

Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

---

### *Rename the Data Source*

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.21 Single User Db* to *EDM 5000.0.0 Single User Db*).

Test the database by launching one of the Engineer's Desktop 5000.0.0 drilling applications and logging into the upgraded database.

The procedure is complete.

# Upgrading Oracle EDM 2003.16 or 2003.16.1.0 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.16 or 2003.16.1.0 Oracle database to an EDM 2003.21 Oracle database.

---

**Database Upgrade of Oracle and SQL Server**

The Database upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

---

The database upgrade scripts are located in the folder:

                    <install directory>\EDM\Updates\Oracle.

---

**XML Export/Import Option**

If your EDM 2003.16/2003.16.1.0 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling applications on-line help.

---

Landmark recommends that a database backup is completed prior to running the database upgrade.

---

**Upgrade to EDM Engineering Release 2003.16 Patches**

Release 2003.21 does *not* require patches to be applied prior to running the Database upgrade. The 2003.21 Database upgrade requires a 2003.16 database or later.

---

## *Required Tools and Installation*

### Database Upgrade

#### *About the Database Utility*

The 2003_21_0_0_ORA_Update.exe runs the files and scripts used when upgrading the 2003.16/2003.16.1.0 Drilling EDM database to 2003.21.

### *Locating and Installing the Database Upgrade Tool*

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder:

<install directory>\EDM\Updates

### *Manual Upgrade*

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

• Oracle database manual upgrades - See "Manually Upgrade Oracle Databases" on page 162.

## *Upgrade an Oracle Database*

### **Upgrade Procedures**

#### *Run Automated Oracle Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists and may overwrite/delete any additional picklist records or modifications made. To edit the picklist upgrade scripts before running them, please select the **Run Manual** method when running the Database upgrade to unzip the scripts and make your changes before upgrading your database.

The following scripts create or modify picklists:

- Pk_structure.ora, pk_structure.syb
- Pk_catalog.ora, pk_catalog.syb
- Rannoch_pk_structure.ora, Rannoch_pk_structure.syb

The following scripts create or modify picklist contents:

- Pk_data_commit.sql
- Rannoch_pk_data.sql

The following scripts affect picklist access and security:

- Pk_catalog_grants.sql
- Pk_public_synonyms.ora
- Rannoch_pk_grants.sql

.ora scripts are for Oracle only.

.syb scripts are for SQL Server/MSDE only.

.sql scripts are for Oracle and SQL Server/MSDE.

---

1. From the `<install directory>\EDM\Updates` directory, run the *EDM_2003_21_0_0_ORA_Update.exe* executable.

---

**Log Files**

The 2003.21 Database upgrade utility will prompt you to save log files once the upgrade has completed.

---

**PK Table Login**

During the database upgrade the program will attempt to login to the EDM
Picklist table schema (PK) using the username and password set in the
*Db_upd.INI* file; PK/landmark is used by default. If this login fails, the
upgrade attempts to login using a password of PK. If this login also fails, the
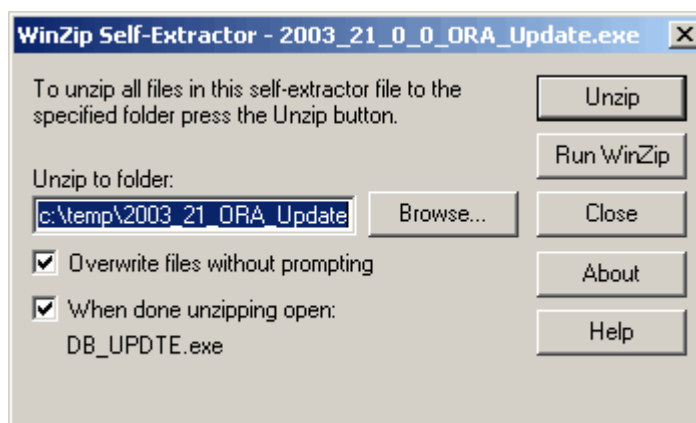user is then prompted for the PK user password during the upgrade process.

Landmark recommends verification of the PK login user name and
password in the *Db_upd.INI* file prior to running the upgrade.

The *Landmark EDM 2003.21.0.0 Database Upgrade* dialog
appears.



2.  Select **Upgrade an Oracle EDM 2003.16 database** option and
    click **Continue**.

    The *Winzip Self-Extractor* dialog appears.

3.   Enter the temporary location where the scripts will be copied and
     select **Unzip**.

4.   When the files have been unzipped click **OK**.

     The *Database Update Program* dialog appears. (Note that the
     database version numbers may differ from what is shown here.
     Check the EDT 2003.21 Drilling Summary Level Release Notes
     for the final release database version.)



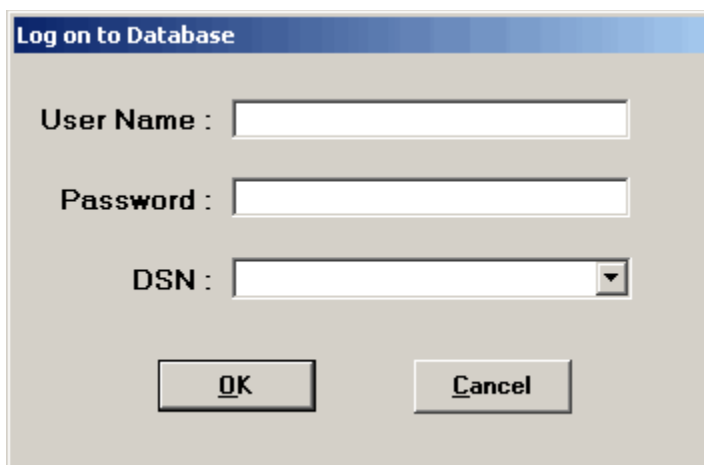     This dialog describes the upgrade scripts that will run.

5.   Choose **Run Automated** to run the upgrade program in automatic
     mode.

     The following dialog appears:



6.   Click **OK**.

The database login screen displays.



7.   Enter the System Administrator **User Name** and **Password**.

---

**Database System Administrator**

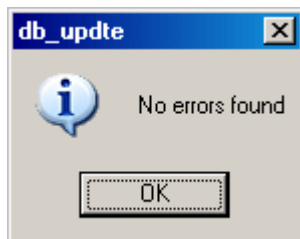*You must login as Schema Owner to perform this upgrade.*

---

8.   Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.16 Single User Db).

     A confirmation dialog appears. (Note that the database version numbers may differ from what is shown here. Check the EDT 2003.21 Drilling Summary Level Release Notes for the final release database version.)



9.   Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical upgrades taking approximately 90 minutes. Click **No** to abort the upgrade.

10.  If no errors occur the following message appears.



11.  Click OK.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.

Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

---

### Rename the Data Source

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.16 Single User Db* to *EDM 2003.21 Single User Db*).

Test the database by launching one of the Engineer's Desktop 2003.21 drilling applications and logging into the upgraded database.

The procedure is complete.

# Upgrading Oracle EDM 2003.14 or 2003.14.1.0 Database

This section outlines the required tools and procedures for upgrading an EDM 2003.14 or 2003.14.1.0 Oracle database to an EDM 2003.16 Oracle database.

---

**Database Upgrade of Oracle and SQL Server**

The Database upgrade tool can only be used to upgrade an Oracle database to Oracle or a SQL database to SQL *not* Oracle to SQL nor SQL to Oracle.

---

The database upgrade scripts are located in the folder

> <install directory>\EDM\Updates\Oracle.

---

**XML Export/Import Option**

If your EDM 2003.14/2003.14.1.0 dataset contains a small amount of data, the XML export/import option can be used instead of a database upgrade. For more information, see the EDM Drilling applications on-line help.

---

Landmark recommends that a database backup is completed prior to running the database upgrade.

---

**Upgrade to EDM Engineering R2003.14 Patches**

Release 2003.16 does *not* require patches to be applied prior to running the Database upgrade. The 2003.16 Database upgrade requires a 2003.14 database (version 05.00.00.077) or later.

---

## *Required Tools and Installation*

### Database Upgrade

#### *About the Database Utility*

The 2003_16_0_0_ORA_Update.exe runs the files and scripts used when upgrading the 2003.14/2003.14.1.0 Drilling EDM database to 2003.16.

---

### *Locating and Installing the Database Upgrade Tool*

To install the database upgrade tools, choose *Database Updates* from the Selection Components list during the installation process. This will place the executables under the folder:

<install directory>\EDM\Updates

### *Manual Upgrade*

For cases that involve database diagnostics, or to maintain manual control over the database upgrade process, use the **Run Manually** button.

- Oracle database manual upgrades - See "Manually Upgrade Oracle Databases" on page 162.

## *Upgrade an Oracle Database*

### Upgrade Procedures

#### *Run Automated Oracle Upgrade*

---

**Custom Picklist Additions and Modifications**

PLEASE NOTE: The database upgrade will refresh the content of some picklists
and may overwrite/delete any additional picklist records or modifications made.
To edit the picklist upgrade scripts before running them, please select the **Run
Manual** method when running the Database upgrade to unzip the scripts and
make your changes before upgrading your database.

The following scripts contain insert and upgrade statements for picklists:

* air_drilling_picklist_data.sql
* fishing_picklist_data.sql
* ow_picklist_data.sql
* pbci_picklist_data.sql
* prod_equip_fail_picklist_data.sql

The following scripts setup privileges for picklist tables:

* misc_pk_grants.sql
* ow_pk_grants.sql
* air_drilling_picklist_grants.sql
* fishing_picklist_grants.sql
* pbci_picklist_grants.sql
* prod_equip_fail_picklist_grants.sql

---

1. From the `<install directory>\EDM\Updates` directory, run the
   *2003_16_0_0_ORA_Update.exe* executable.

---

**Log Files**

The Database upgrade utility will prompt you to save log files once the
upgrade has completed.

---

---

**PK Table Login**

During the database upgrade the program will attempt to login to the EDM Picklist table schema (PK) using the username and password set in the *Db_upd.INI* file; PK/landmark is used by default. If this login fails, the upgrade attempts to login using a password of PK. If this login also fails, the user is then prompted for the PK user password during the upgrade process.
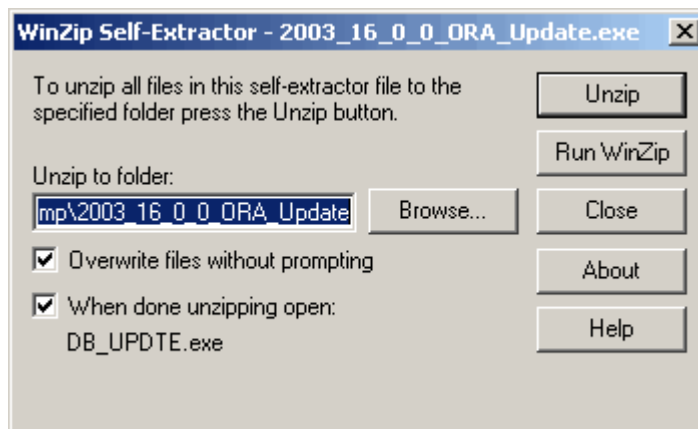
Landmark recommends verification of the PK login user name and password in the *Db_upd.INI* file prior to running the upgrade.

---

The *Landmark EDM 2003.16.0.0 Database Upgrade* dialog appears.
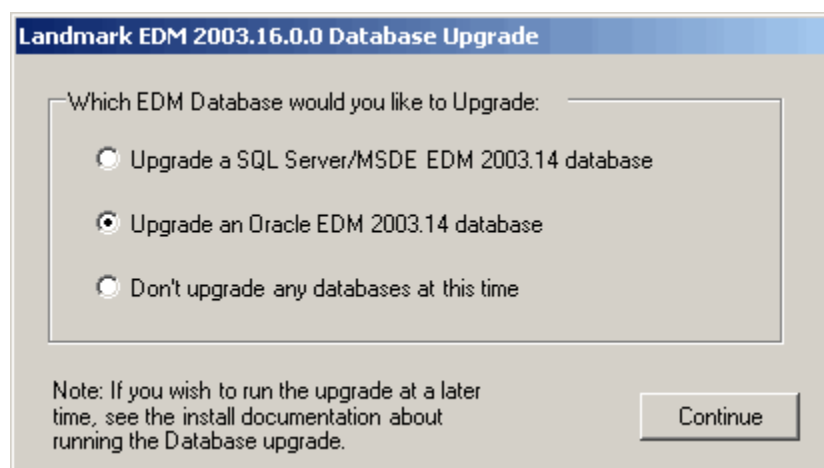


2.  Select **Upgrade an Oracle EDM 2003.14 database** option and click **Continue**.

The *Winzip Self-Extractor* dialog appears.



3.   Enter the temporary location where the scripts will be copied and select **Unzip**.

4.   When the files have been unzipped click **OK**.

The *Database Update Program* dialog appears.



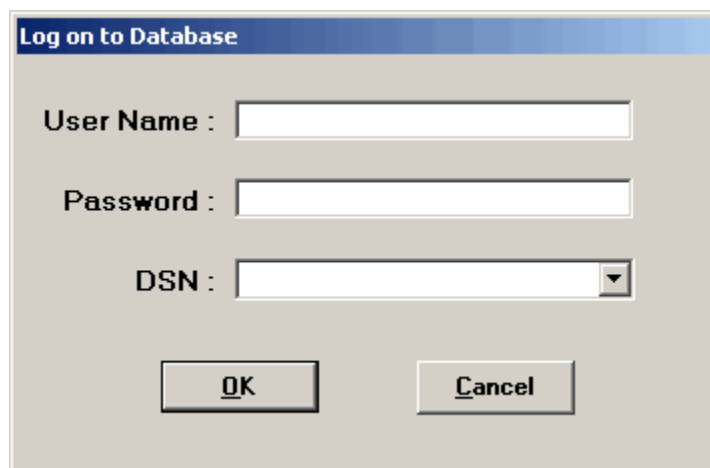This dialog describes the upgrade scripts that will run.

5.   Choose **Run Automated** to run the upgrade program in automatic mode.
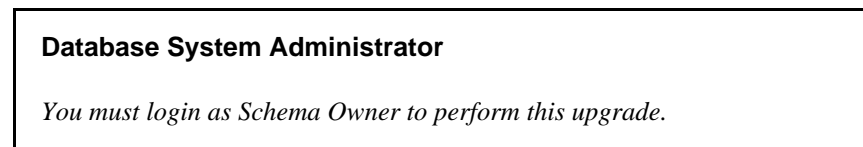
The following dialog appears:



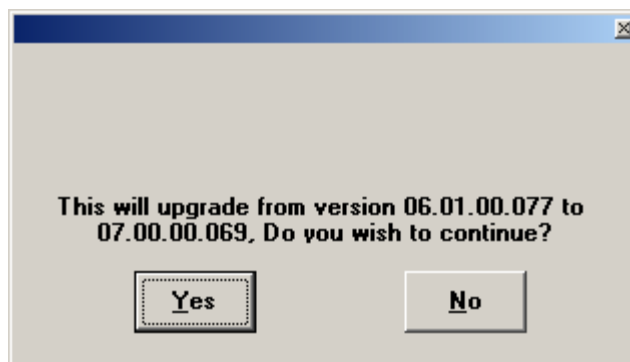6.   Click **OK**.

The database login screen is displayed.



7.   Enter the System Administrator **User Name** and **Password**.

---

**Database System Administrator**

*You must login as Schema Owner to perform this upgrade.*

---

8.   Select the Data Source Name from the **DSN** picklist (e.g., EDM 2003.14 Single User Db).

A confirmation dialog appears.



9.  Click **Yes** to begin the upgrade.The database upgrade scripts are executed. This may take some time with typical upgrades taking approximately 90 minutes. Click **No** to abort the upgrade.

10. If no errors occur the following message appears.



11. Click **OK**.

---

**Upgrade Errors**

If errors occurred during the upgrade, you will be prompted to save the error log file, click the **Yes** button and select a destination directory.

Review the log files for details on the errors. Report any database upgrade errors you are unable to resolve to Landmark Support.

---

**SEVERE SITE IMPORT ERROR**

If SEVERE SITE IMPORT ERROR message(s) are reported in the log file, please note the date on the message. Old errors can be picked up from the log file and erroneously reported.

---

### *Rename the Data Source*

The database is now ready to use. Landmark recommends renaming the Data Source name to reflect the newly upgraded database (e.g., rename *EDM 2003.14 Single User Db* to *EDM 2003.16 Single User Db*).

Test the database by launching one of the Engineer's Desktop 2003.16 drilling applications and logging into the upgraded database.

The procedure is complete.

# Upgrading Oracle EDM 2003.11 Database

If your database is version 2003.11, contact Landmark Support to upgrade.

# Manual Upgrades

## *Manually Upgrade Oracle Databases*

The manual upgrade procedures for each version of EDT on Oracle are similar, with the main difference being the scripts that are run. For an example of a manual upgrade to an Oracle database, see "Manually Upgrade Oracle Databases" on page 60

To obtain a copy of the installation guide for a specific release, contact Landmark Support for assistance.

# *Index*