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PROPRICER

PROPRICER™ Version 9.x Installation Guide

About This Guide

The PROPRICER™ Installation Guide is a systems administrator's reference for setting up and maintaining PROPRICER and its supporting databases.

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Welcome to PROPRICER

The current version of PROPRICER operates in a three-tier architecture that includes an application client, an application server, and a database.

The application client is a “thick” client, meaning most of the processing work is done on the client.

The application server is a service that uses special serialization to minimize the size of transferred data, so clients are quickly and easily synchronized with the database. The service is managed by a program called PROPRICER Server Manager.

PROPRICER supports both Microsoft SQL Server and Oracle databases. Each database type can be created with the PROPRICER Database Setup program. Both SQL Server and Oracle databases have unique characteristics and uses in the workplace. The functionality and display of PROPRICER are the same, regardless of the database type.

Minimum Requirements

PROPRICER Client

Physical Machine or Virtual Desktop Infrastructure

- RAM
  - Minimum: 4 GB
  - Recommended: 8 GB
- Processor
  - 64-bit
  - Minimum speed: 1.4 GHz
  - Recommended speed: 2.0 GHz or faster
- Hard drive space: 500 MB (excluding database)
- .NET Framework 4.6.1

Virtual Application Only

- RAM
  - Minimum: 1 GB
  - Recommended: 2 GB
- Processor
  - 64-bit
  - Minimum speed: 1.4 GHz
  - Recommended speed: 2.0 GHz or faster
- Hard drive space: 10 MB (for user profiles only)
- .NET Framework 4.6.1

PROPRICER Application Server

- RAM
    - 1-50 users: 4 GB
    - Every 50 additional users: Increase by 2 GB
- Processor
    - 64-bit
    - Minimum: 1.4 GHz
    - Recommended: 2.0 GHz or faster
- Hard drive space: 100 MB (excluding database)
- .NET Framework 4.6.1

Database Server Requirements

- Microsoft SQL Server 2012 or newer
- Oracle 10gR2 or newer

SQL Database Initial Starting Sizes

- Without tutorial
    - Data: 6.25 MB
    - Log: 12 MB
- With tutorial
    - Data: 9.25 MB
    - Log: 14.60 MB

Windows Operating System Compatibility

- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2008 R2 SP1
- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2016
- Windows Server 2019

Databases

The enterprise versions of Microsoft SQL Server and Oracle databases are primarily used by larger companies that have more data to store in PROPRICER, require better security, or need better reliability. The express versions of these databases are used by smaller companies that might only have a few users.

Following are the advantages and disadvantages of using an SQL Server or Oracle database, as well as some other things to consider before installation.

Advantages

- The database is robust. Data corruptions hardly ever occur.
- An unlimited number of users can reliably connect to the database.
- There is no limit on storage capacity, unless express versions are used.
- The database is secure. An end user cannot access it without the proper permissions.
- The database is usually located on its own server. This reduces the impact of network traffic.
- The database is easy to back up.

Disadvantages

- There must be IT infrastructure in place to support SQL Server and Oracle databases. Maintenance of the databases must be done by a database administrator, which could be an added cost.
- These databases are more expensive, although there are free express versions of both SQL Server and Oracle. For full enterprise versions, a powerful server must house the database so it can handle all the PROPRICER functions and users connecting to the database.

- The databases are potentially difficult to restore. The restore process can take anywhere from a few hours to all day. This depends on the size of the database.

Things to Consider Before Installation

PROPRICER Database Components

- System data: Information about PROPRICER users, rights, settings, etc.
- Global data: Libraries and rate tables shared between proposals.
- Proposal-specific data: Information entered or used in a certain proposal.

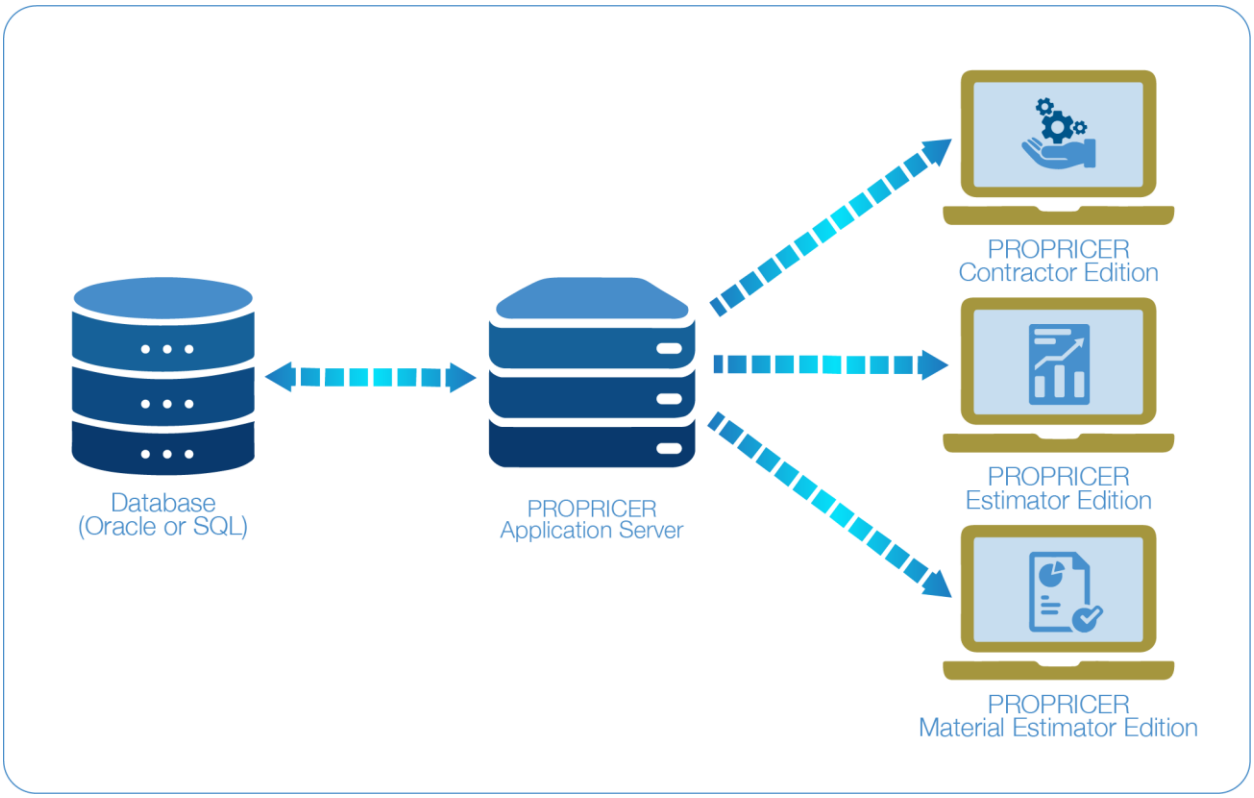
How a PROPRICER Database Works

- The entire PROPRICER database, including system, global, and proposal data is stored in a single Oracle or SQL Server database.
- The PROPRICER database does not require a dedicated Oracle or SQL Server database. Any database can be used without affecting the existing applications and data. However, PROPRICER does require that its data is separated from all other data in the database. It also requires full privileges to modify its own data, including future database upgrades.
- There is no relationship between PROPRICER users and database users. PROPRICER users are part of their own security model, which is used to restrict access to certain PROPRICER areas. PROPRICER does not rely on or use any SQL Server or Oracle security capabilities.
- Only the application server communicates with the database, and it only uses one SQL Server or Oracle user account to do it. The application server then sends data to the PROPRICER clients, which have many user accounts.
- To use PROPRICER with an Oracle database, the server and client must be installed and configured as described in the Oracle Database Server Setup and Oracle Client Setup sections of this guide.

- Connection information is placed in an encrypted format in a central location. End users only see descriptive information about existing PROPRICER databases. PROPRICER extracts and uses connection information via the application server, which is only accessible to system administrators.
- When working with an SQL Server or Oracle database, PROPRICER uses a "thin" server, which creates database constraints to ensure data integrity. Logical rules are enforced and applied by the PROPRICER client.
- Currently, no SQL Server or Oracle multi-user capability is needed, because PROPRICER uses its own locking schema via the application server to resolve multi-user conflicts. This is based on PROPRICER logical units, not database tables or records.

PROPRICER Connectivity

Linking multiple PROPRICER applications to the same application server allows users to easily share data. A single PROPRICER application can be used to input all data, which eliminates duplicate data entry issues and allows for some configuration control.



To learn more about the PROPRICER architecture, see the PROPRICER Architecture section of this guide.

PROPRICER Contractor Edition, Government Edition, Small Business Edition, Estimator Edition, and Material Estimator Edition can connect to the same application server and database. This is also true for the Services editions of PROPRICER, but they must connect to their own application server and database.

Downloading PROPRICER

Go to the PROPRICER Support Portal at support.propricer.com to download the installation files.

If a silent installation with Microsoft System Center Configuration Manager (SCCM) is preferred, all files need to be extracted and placed in a folder. Windows File Explorer can be used to extract the files.

PROPRICER Installation File Types

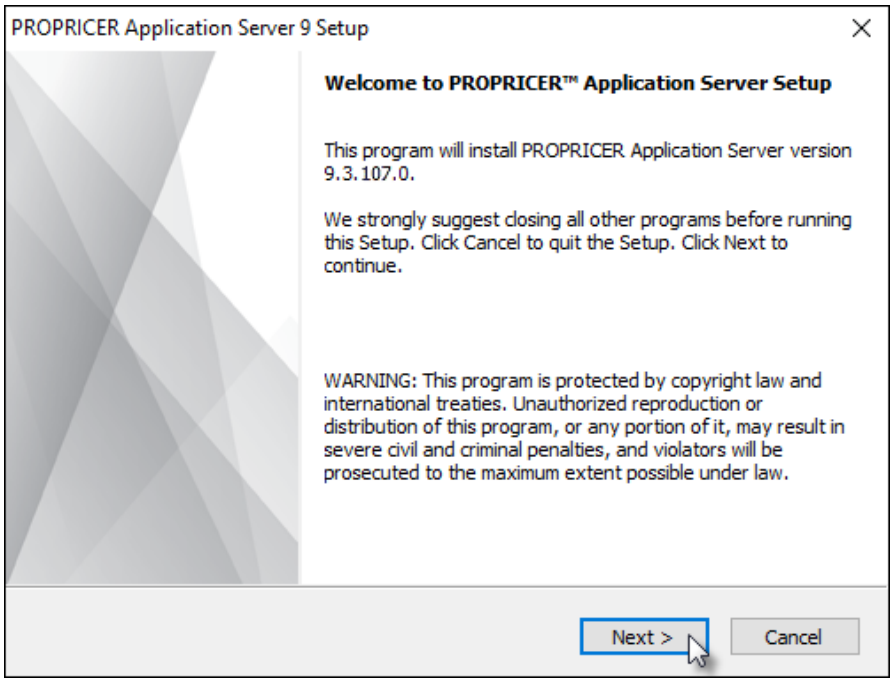
- Application server: Designed to install PROPRICER Application Server, PROPRICER Server Manager, and PROPRICER Database Setup.
- Client application: Designed to install the PROPRICER client.
- Client, server, and MSSQL Express (all in one): Designed for standalone installations. This puts the PROPRICER client, application server, and an MSSQL Express database on the same system and connects them.

PROPRICER Application Server

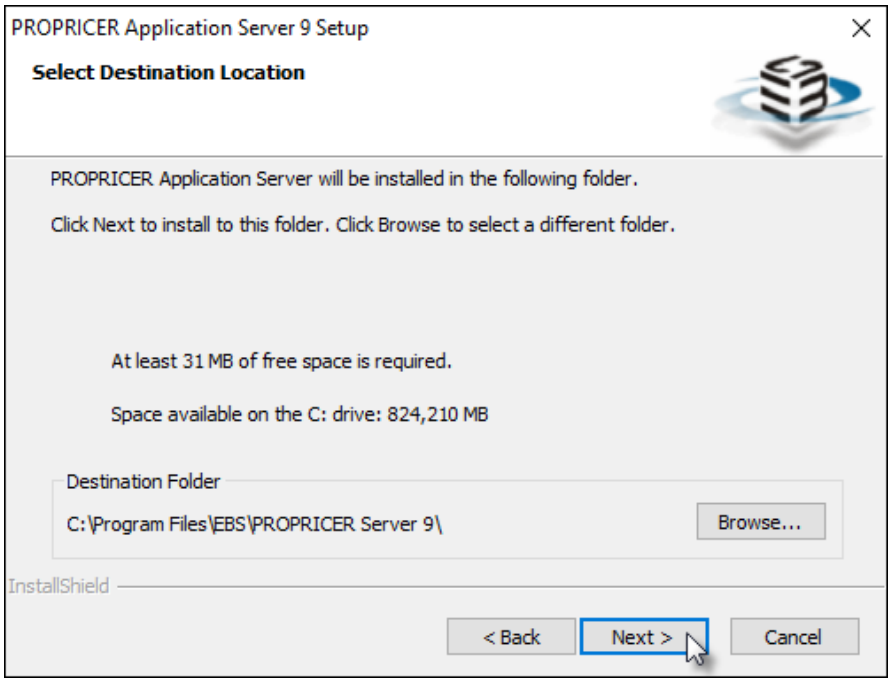
PROPRICER Application Server 9 is the service that allows users to connect the PROPRICER client to their SQL Server or Oracle database. The server acts as the central location for connecting a client, routing data, and controlling record locking.

PROPRICER Application Server Setup

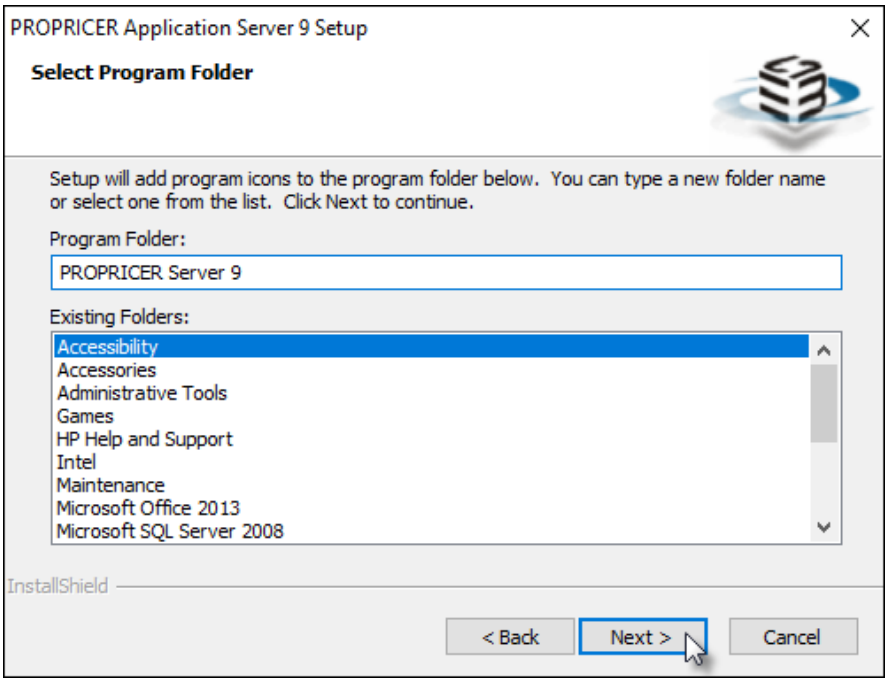
1. Double-click the PROPRICER Application Server installation file.
2. The Welcome window appears and provides some details on what the installation process involves. Click **Next**.



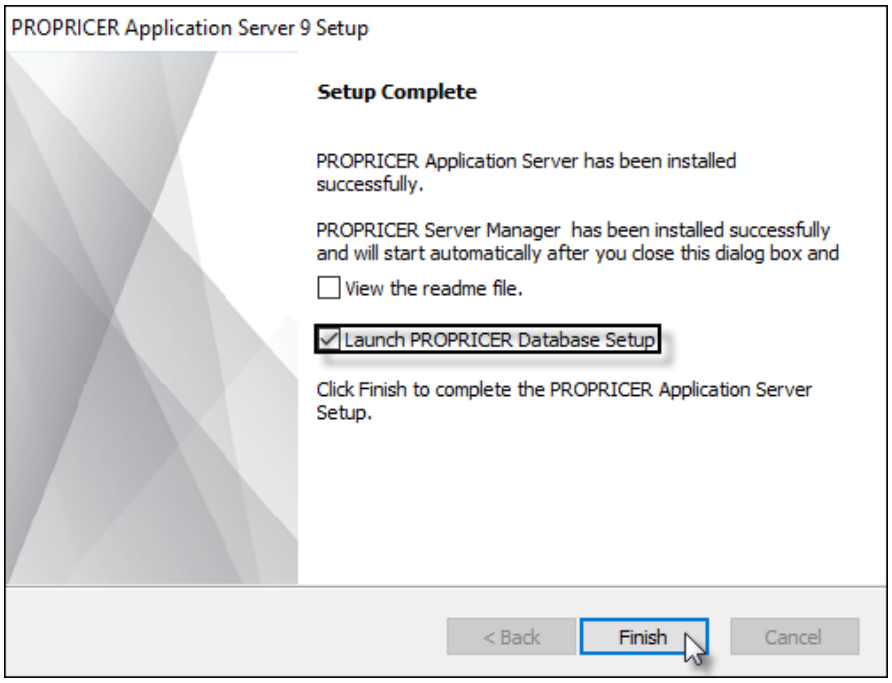
3. In the License Agreement window, click **Yes**.
4. In the Select Destination Location window, click **Next** to accept the default location. Or click **Browse** to select a different folder, then click **Next**.



5. Accept or change the default Program Folder name, then click **Next**.



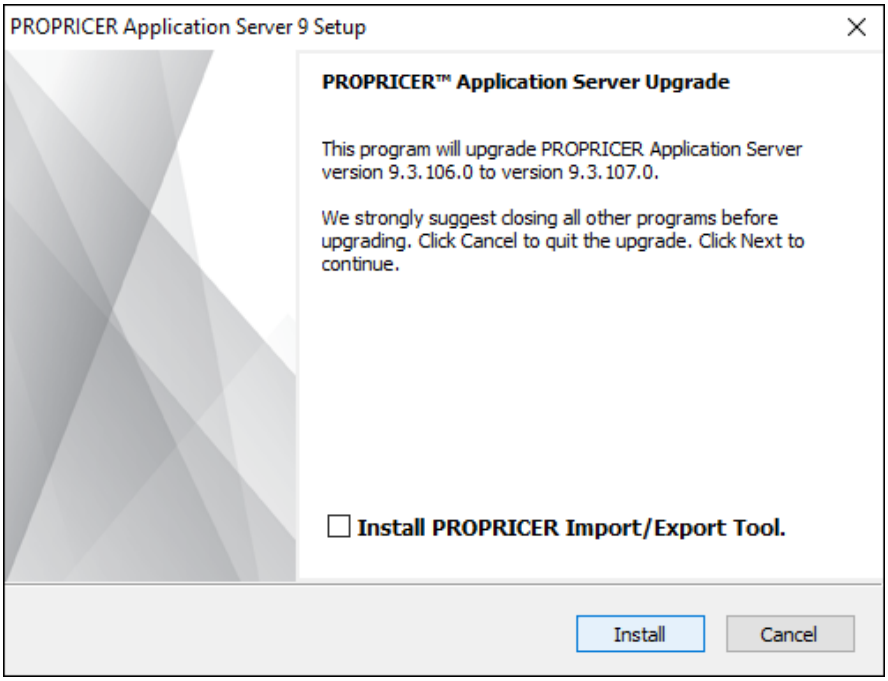
6. In the Current Settings window, review the information. Then click **Install**.
7. If a database is not already set up, select **Launch PROPRICER Database Setup**. Then click **Finish**.



Upgrading the Application Server

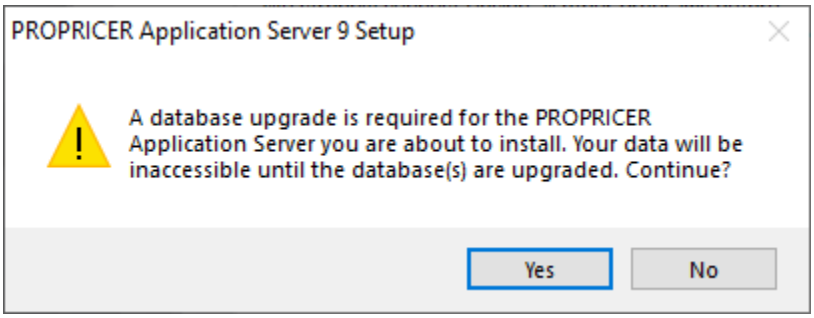
To upgrade, the latest PROPRICER Application Server installation file is required. Run the installation file, then follow this procedure.

1. When the PROPRICER Application Server 9 Setup window appears, click **Install**.



   - **To install the PROPRICER Import/Export Tool, select the corresponding check box before clicking Install.**

2. A message will warn you that your data will be temporarily inaccessible while upgrading. Click **Yes** to continue the upgrade process.



3. Click **Finish**.

PROPRICER Database Setup

Use the PROPRICER Database Setup program to create an SQL Server database, create an Oracle database, or upgrade an existing database. Currently there is no special utility tool for converting an SQL Server database to an Oracle database or vice versa. Instead, use the PROPRICER Archive/Restore features to move data from one database type to another.

SQL Server Database Required Information

- Database Name
- Database Server Name
- Login ID and Password for SQL Server authentication

The following information is not required, but you can provide it if needed:

- Database Data File: Path and Filename, Size, Max Size, and File Growth
- Database Log File: Path and Filename, Size, Max Size, and File Growth

Oracle Database Required Information

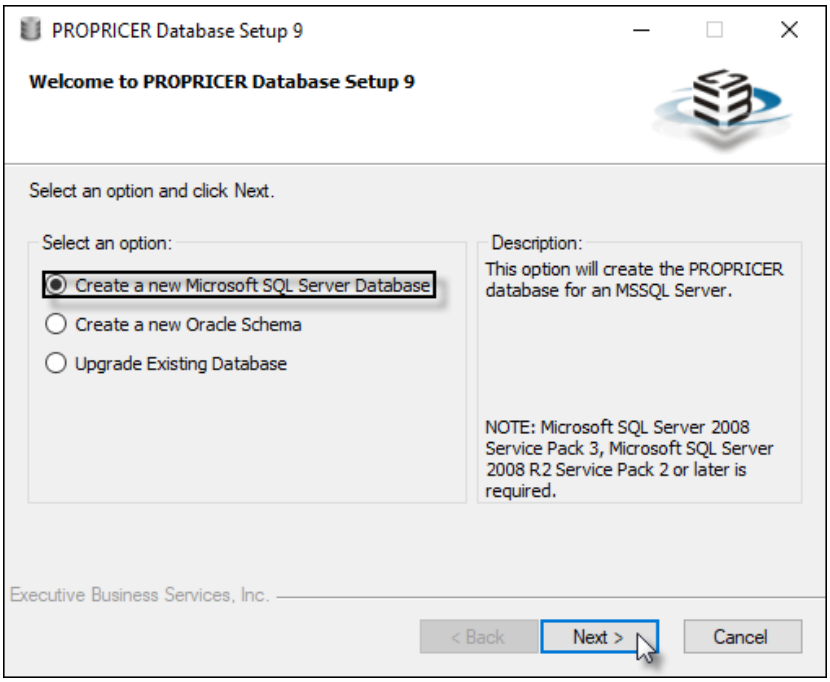
- Host Name: The IP address or name of the host for the Oracle server.
- Port Number: The Oracle TCP/IP port. The default is 1521.
- Service Name: The Oracle instance name.
  - **The host name, port number, and service name must be configured correctly in the tnsnames.ora file before running the Database Setup program. This file is located in the PROPRICER 9 Server program folder.**
- System Username and Password: Username with SYSDBA privileges.
- System Temporary Tablespace Name
- Schema/Username and Password
- Data Tablespace Name

- Data Tablespace Path and Filename
- Index Tablespace Name
- Index Tablespace Path and Filename
  - **If an Oracle 12c database is being used, the PROPRICER server needs to be connected to the pluggable database (PDB) that is connected to a container database (CDB).**

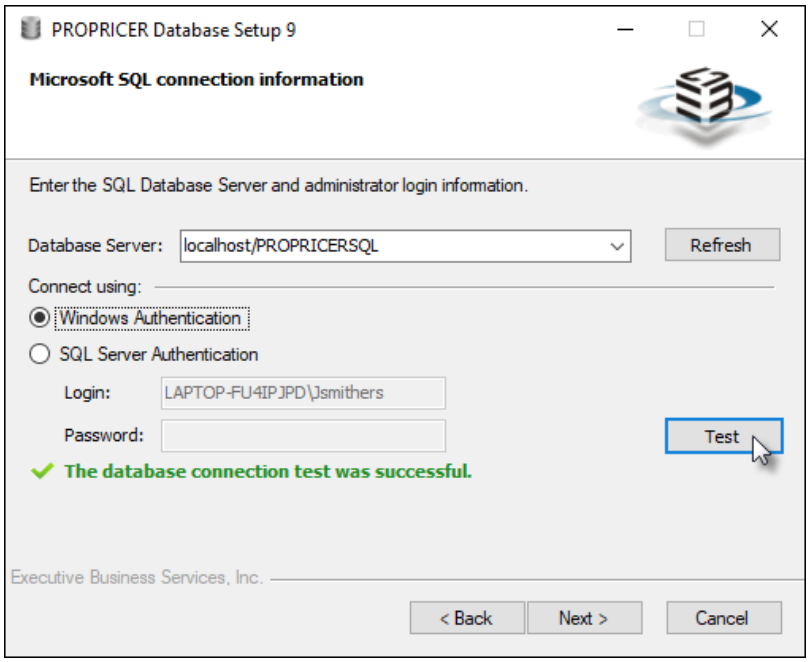
SQL Database Server Setup

After installing the application server, launch the Database Setup program. In Windows, go to **Start** > **All Programs** > **PROPRICER Server 9** > **PROPRICER Database Setup**. If the all in one installer is used, the Database Setup program runs automatically, and the database is created and upgraded automatically.

1. When the PROPRICER Database Setup window appears, select **Create a new Microsoft SQL Server Database**, then click **Next**.

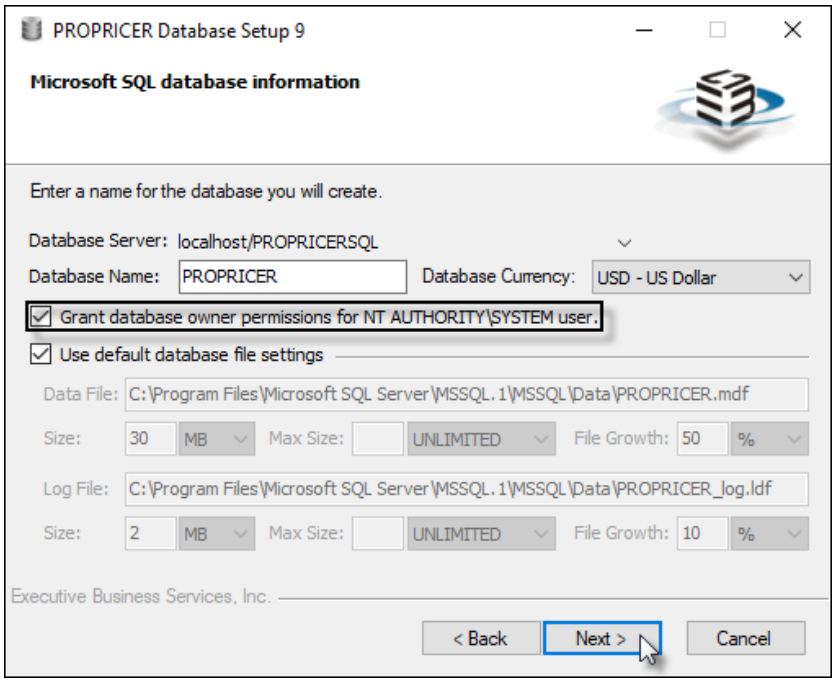


2. Enter the Microsoft SQL connection information, then click **Next**.
    - For this installation, localhost/PROPRICERSQL is the database server, and Windows Authentication will be used for the login information.
    - Click **Test** to ensure the connection is successful.

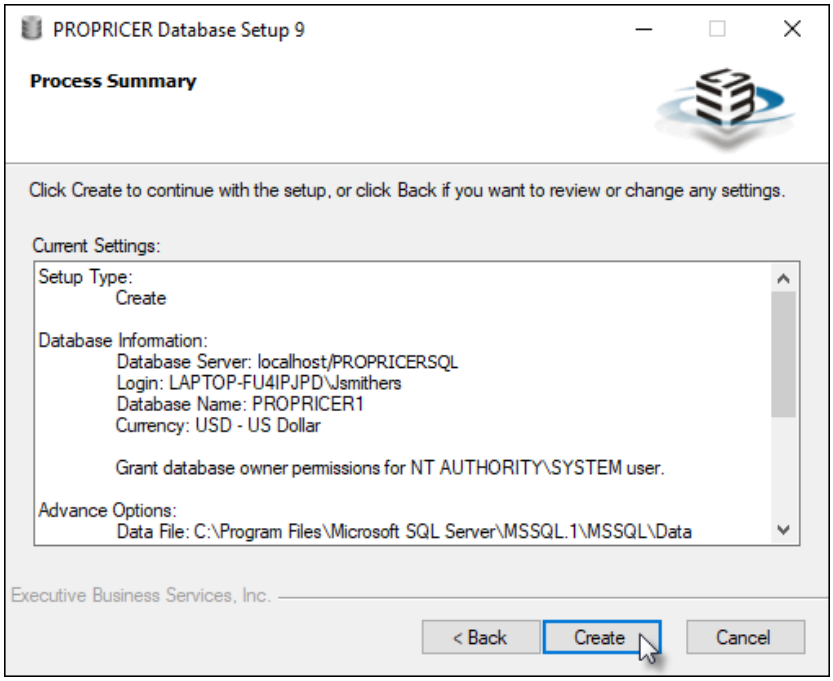


    - Windows Authentication is recommended for network environments. When Windows Authentication is selected, SQL Server Authentication is disabled.
    - If Windows Authentication is used, you must provide the correct Windows credentials to the PROPRICER Application Server 9 service.
        i. In Windows, open the Services application, right-click **PROPRICER Application Server 9**, then click **Properties**.
        ii. Select **Log On** > **This Account**.
        iii. Enter the password, then click **OK** or **Apply**.
        iv. Restart the PROPRICER Application Server 9 service.
3. Enter the Microsoft SQL database information, then click **Next**.

- The default database name is PROPRICER, but you can change it.
- Verify or change the currency of the new database. The default currency is US Dollar.
- Selecting **Grant database owner permissions for NT Authority/SYSTEM user** gives the LocalSystem account permission to manage the database's users.
- Clearing **Use default database file settings** is only recommended for database administrators or advanced users to modify the minimum and maximum size of the database and log file.



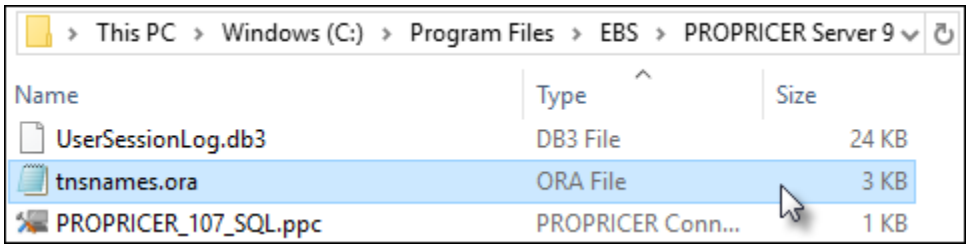
4. Verify the settings, then click **Create**.



Oracle Database Server Setup

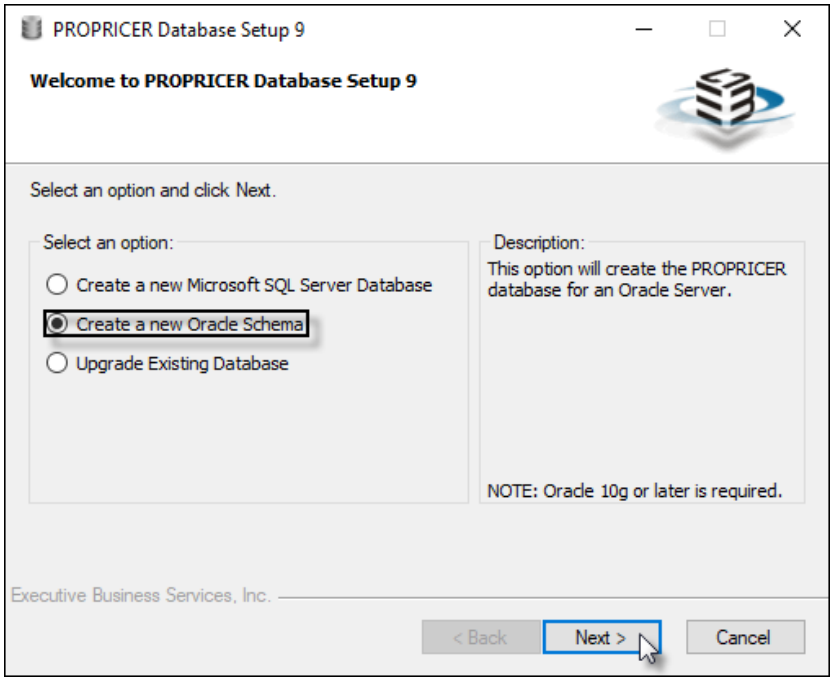
When creating an Oracle database, the tnsnames.ora file must be configured with the correct host name, port number, and Oracle System ID (SID) before running the Database Setup program.

An example tnsnames.ora file is located at **Windows (C:)** > **Program Files** > **EBS** > **PROPRICER Server 9** > **tnsnames.ora**. This file can be edited to include the required information, or a tnsnames.ora file can be copied to the folder from somewhere else, as long as the required information is correct.

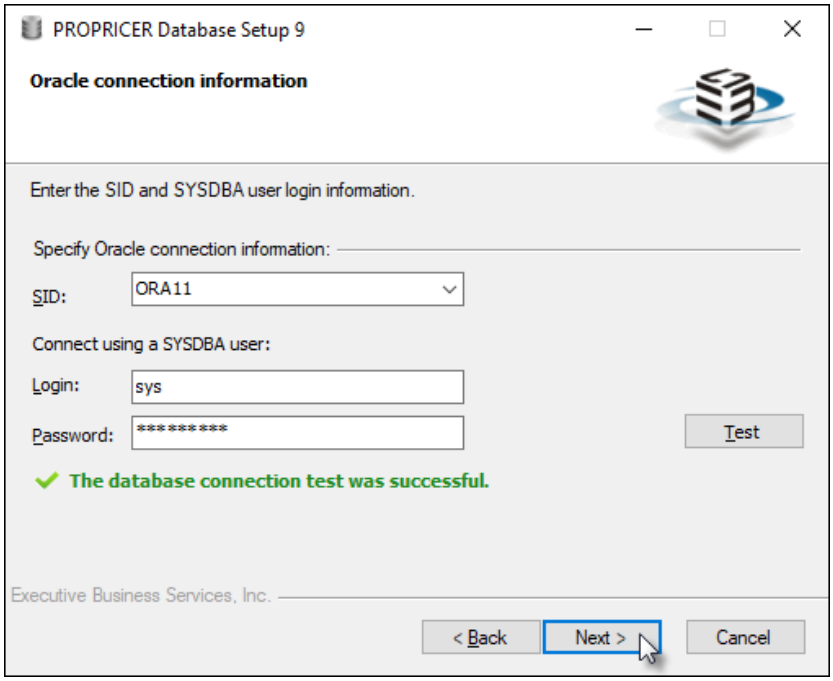


After this is done, launch the Database Setup program. (If the all in one installer is used, the Database Setup program creates the database and upgrades it automatically.)

1. When the PROPRICER Database Setup window appears, select **Create a new Oracle Schema**, then click **Next**.

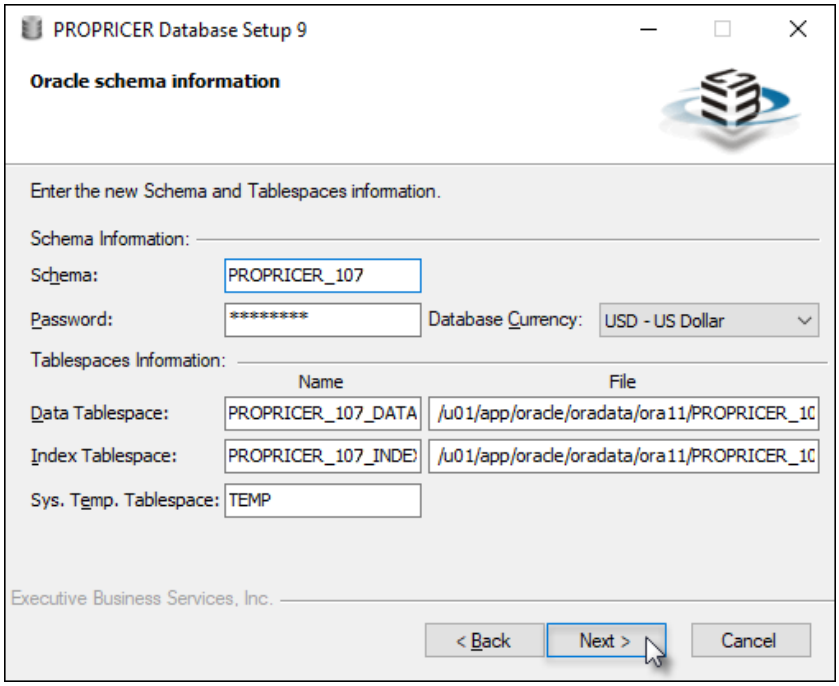


2. Enter the SID and login credentials, then click **Next**.

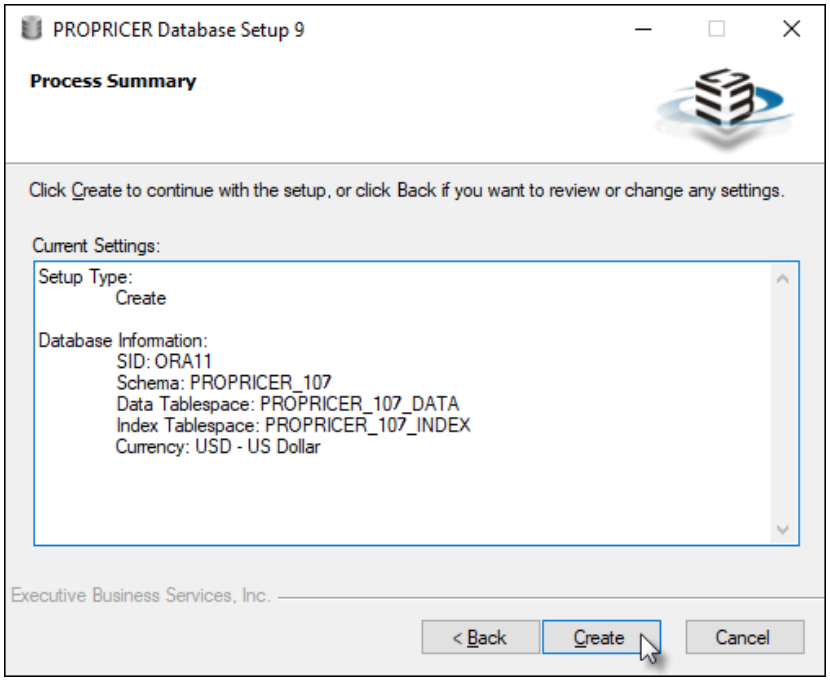


➢ **Click Test to see if the connection and credentials are successful.**

3. Enter and verify the schema and tablespace information, then click **Next**.



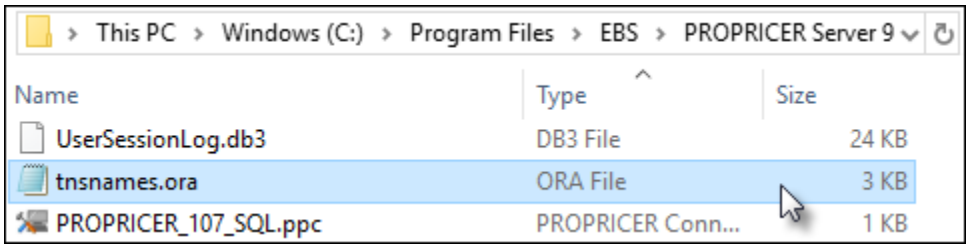
4. Verify the settings, then click **Create**.



Oracle Client Setup

When PROPRICER Application Server is installed, Oracle Managed Driver is installed along with it. However, before setting up the Oracle client, the tnsnames.ora file must be configured with the correct host name, port number, and Oracle system ID (SID). If this step was completed before running the Database Setup program, it does not need to be repeated.

An example tnsnames.ora file is located at **Windows (C:)** > **Program Files** > **EBS** > **PROPRICER Server 9** > **tnsnames.ora**. This file can be edited to include the required information, or a tnsnames.ora file can be copied to the folder from somewhere else, as long as the required information is correct.



An ODP.NET managed configuration is not FIPS compliant, so the verification has been turned off in the following files:

- PROPRICERServer.exe.config
- PROPRICERDatabaseSetup.exe.config
- PROPRICERServerManager.exe.config

To remove the setting that disables the verification, remove the following lines from the .config files:

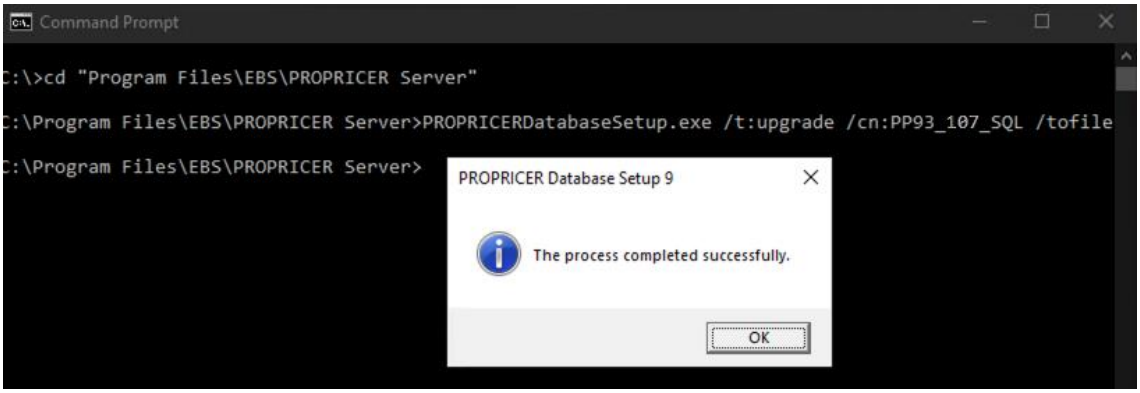
- <runtime>
- <enforceFIPSPolicy enabled="False"/>
- </runtime>

Create a Database Upgrade Script

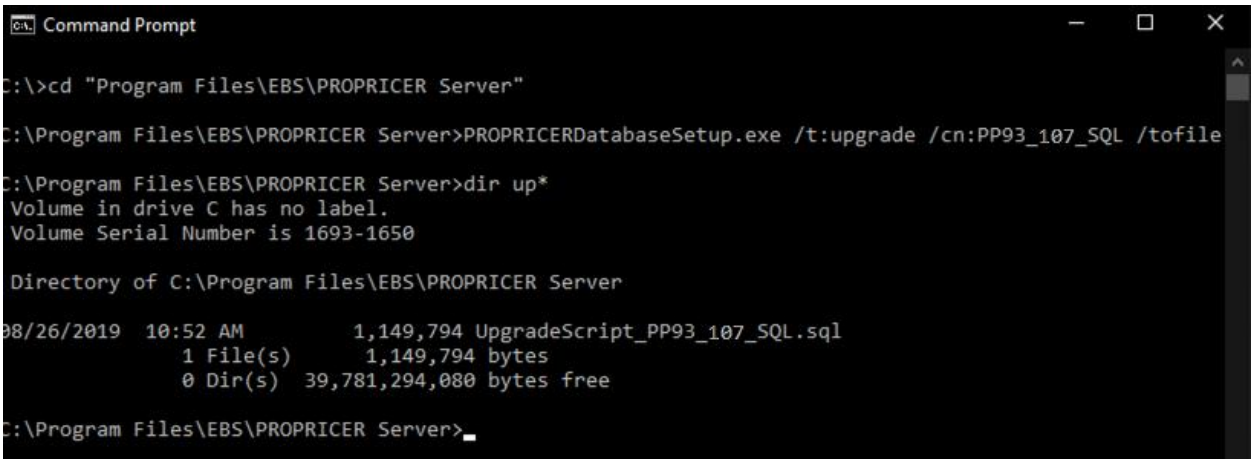
To see what the upgrade process will change without affecting the current database, create a database upgrade script. Keep in mind that outdated clients will not be able to connect to the database after it is upgraded.

To generate a database upgrade script, the latest version of PROPRICER Application Server must be installed, and PROPRICER Database Setup must be run with command line parameters.

1. Go to support.propricer.com, download the latest version of PROPRICER Application Server, then install it.
2. In Windows, find the folder where PROPRICER Application Server is installed. The default location is C:\Program Files\EBS\PROPRICER Server.
3. Open the Command Prompt application.
4. Enter `PROPRICERDatabaseSetup /?` to see all command line parameter options (optional).
5. Enter `PROPRICERDatabaseSetup.exe /t:upgrade /cn:CONNECTION_NAME /tofile`
    - For example: `PROPRICERDatabaseSetup.exe /t:upgrade /cn:PP93_108_SQL /tofile`
6. If done correctly, a message will appear. Click **OK**.



7. The file you created will be named `UpgradeScript_CONNECTION_NAME.sql`.
    - For example: `UpgradeScript_PP3_108_SQL.sql`



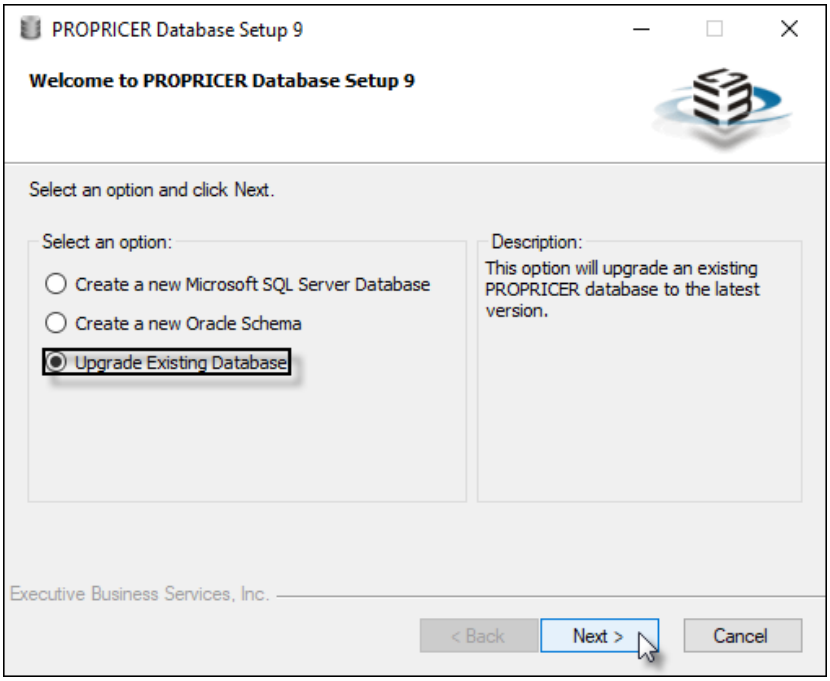
8. Open the file in a text editor, such as Notepad, to see the changes that the upgrade process will make.

Upgrading the Database

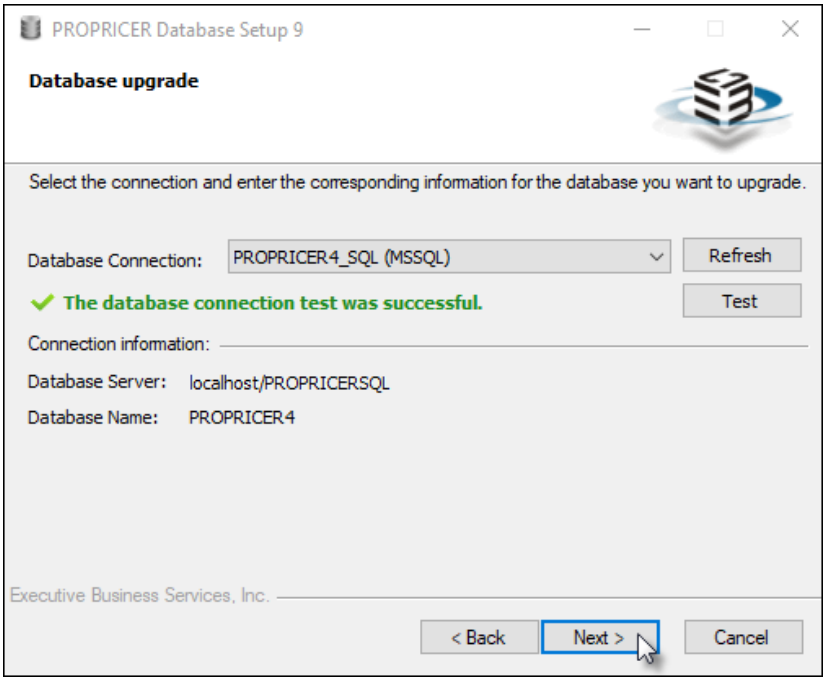
Installing new versions of PROPRICER requires a database upgrade. To check if a database upgrade is required, see the release notes for the version of PROPRICER you want to install.

To upgrade a database, the latest version of PROPRICER Database Setup is required. Its default location is C:\Program Files\EBS\PROPRICER Server 9.

1. Run the PROPRICER Database Setup program, select **Upgrade Existing Database**, then click **Next**.



2. Select the **Database Connection**, click **Test** to make sure there is a connection to the database, then click **Next**.



3. Verify the settings, then click **Upgrade**.

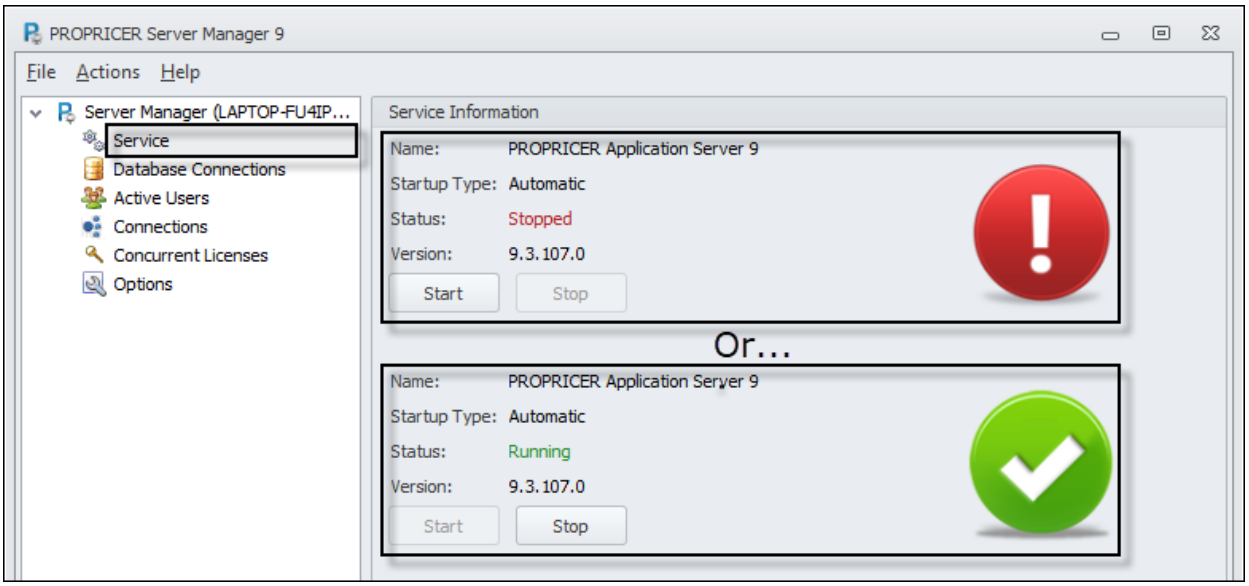
   - **The PROPRICER client can be upgraded by running the client installer.**

PROPRICER Server Manager

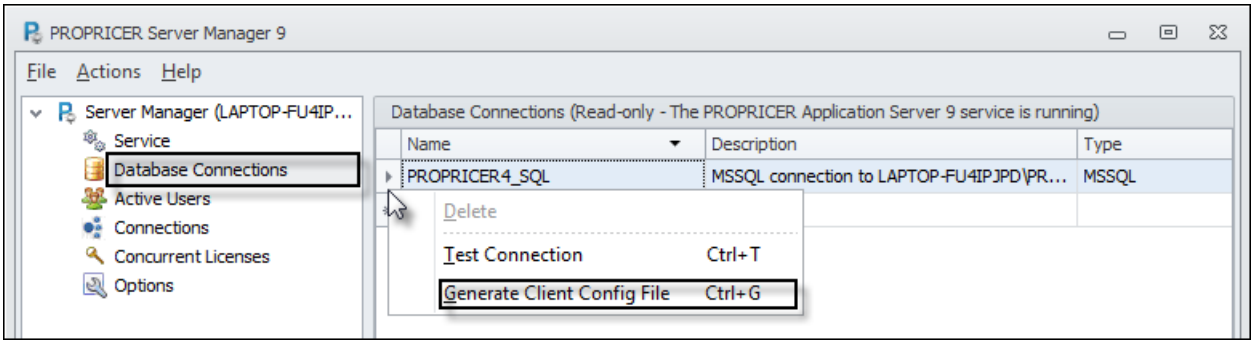
Use PROPRICER Server Manager to turn the service on and off, create connection files that connect PROPRICER to its database server, manage PROPRICER connections, view and remove active users, and maintain concurrent licenses. PROPRICER Server Manager supports both SQL Server and Oracle databases.

How to Use PROPRICER Server Manager

1. Open PROPRICER Server Manager by clicking **Start** > **All Programs** > **PROPRICER Server Manager 9**.
2. The Service section allows you to start or stop the PROPRICER Application Server 9 service. Under **Service Information**, click **Start** or **Stop**.

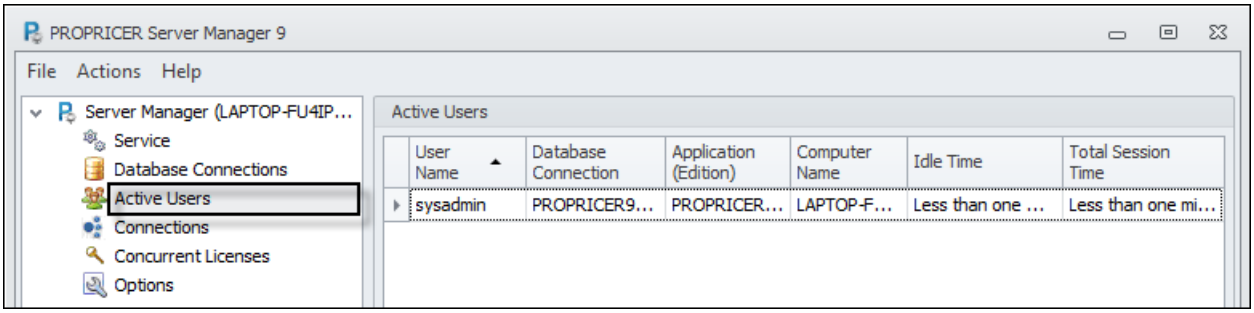


3. The Database Connection section is for testing the current connection or creating a new PROPRICER connection file. Right-click the preferred connection, then select **Generate Client Config File** to create a .ppc file for that database. Once the .ppc file is created, it can be moved to any location.

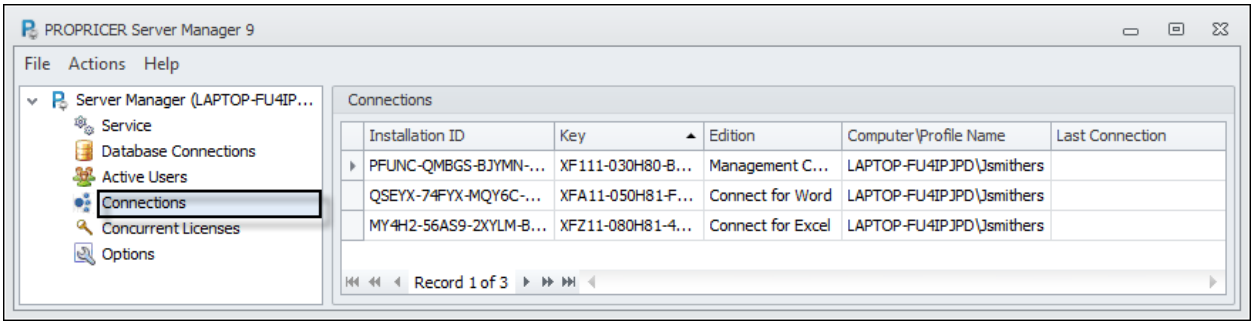


- **Point PROPRICER to the generated file by holding Shift on your keyboard when you start PROPRICER for the first time.**

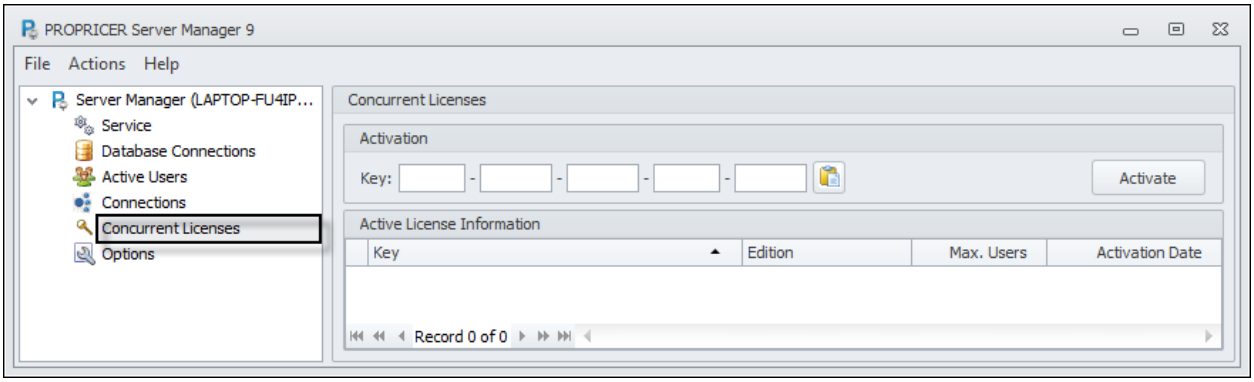
4. The Active Users section shows all connected users, how long they've been connected, and how long they've been idle. To disconnect a user from PROPRICER, right-click the name, then select **Disconnect Session**.



5. The Connections section is a log of the computers or profiles that have connected to the application server.

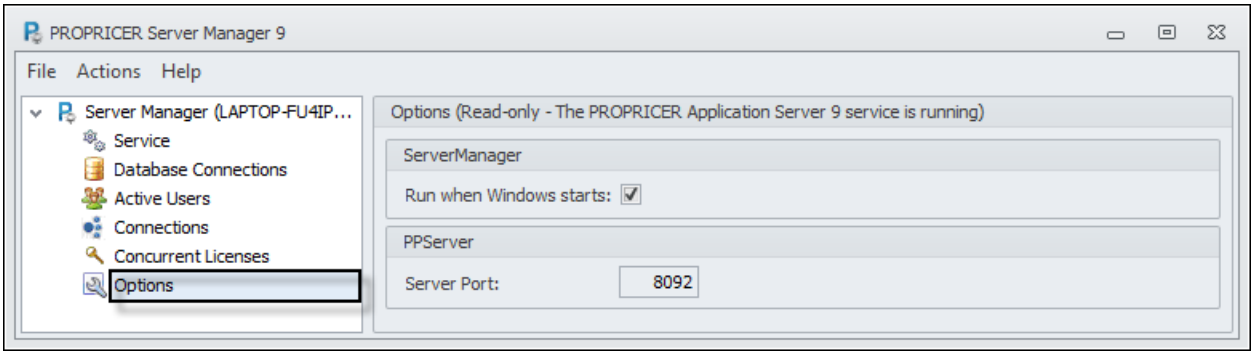


6. The Concurrent Licenses section is for setting up and maintaining concurrent licenses. It is only used if the license type is Concurrent.



7. The Options section allows to decide if you want PROPRICER Server Manager to open automatically when Windows starts. You can also set the server port.

   - **The options can only be changed when the service is stopped.**



8. Closing PROPRICER Server Manager will minimize it to the system tray.

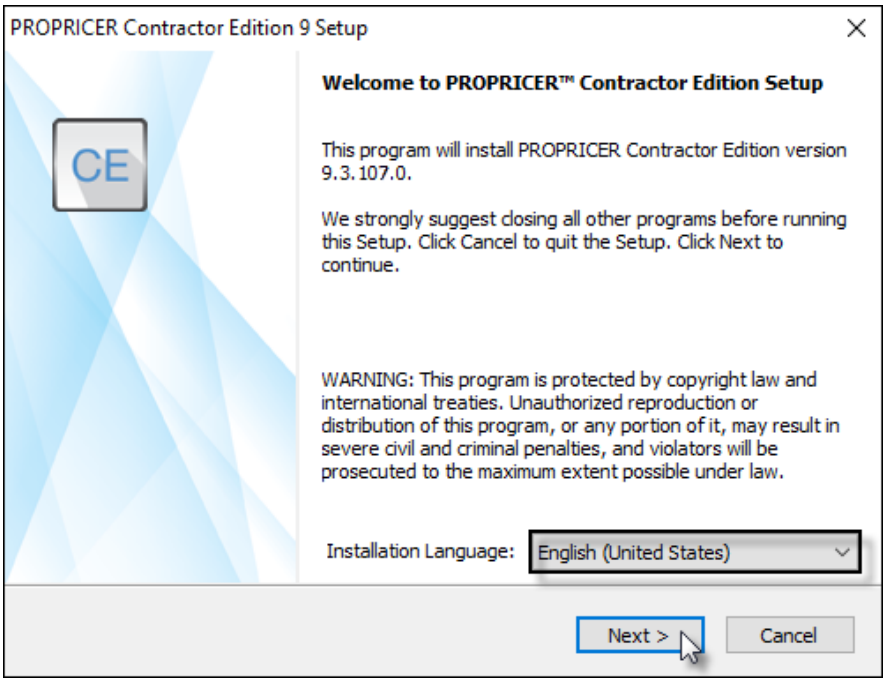
PROPRICER Client

Use the PROPRICER client to access, manage, and report the data and proposals that are stored in the database. Regardless of the database type (SQL Server or Oracle), the client must be launched after the database has been set up and the PROPRICER connection file (.ppc) has been created in PROPRICER Server Manager.

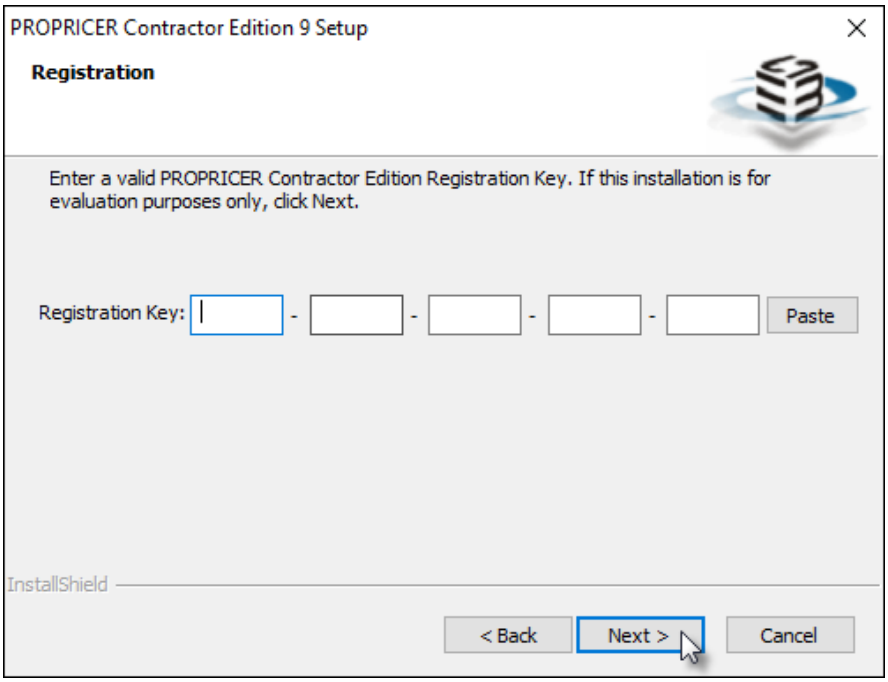
- **If a system administrator is installing the PROPRICER client, it should be activated with an end user's Windows credentials, not the administrator's credentials. The client cannot be activated with both the administrator's login and the end user's login.**

Installing the PROPRICER Client

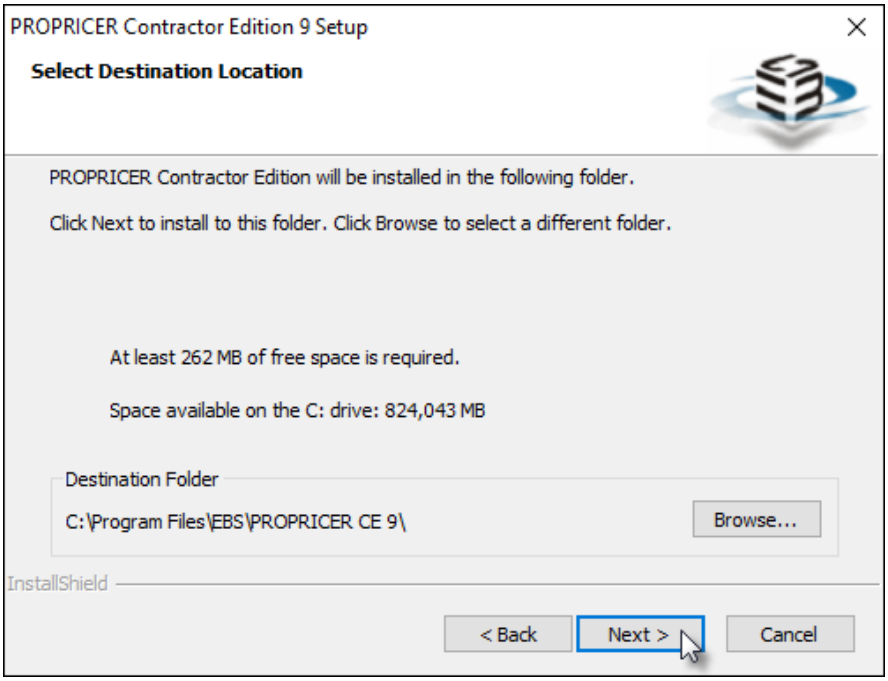
1. Double-click the PROPRICER client installation file.
2. Select the installation language.



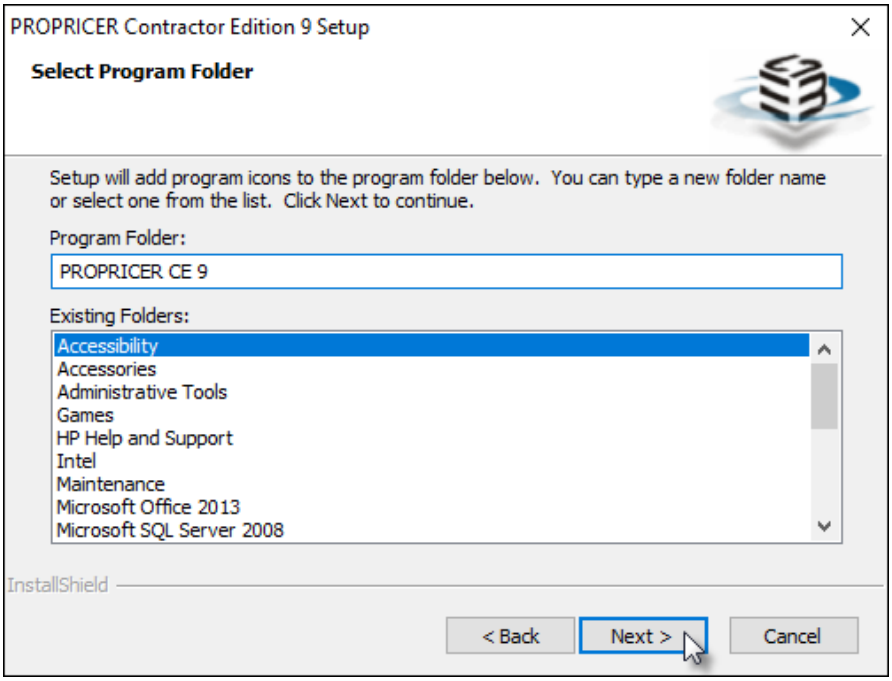
3. The End User License Agreement will appear. Click **Yes** to accept the terms and continue the installation.
4. Enter your registration key, then click **Next**. If you copied the key to your clipboard, click **Paste** instead of pressing **Ctrl**+**V**.



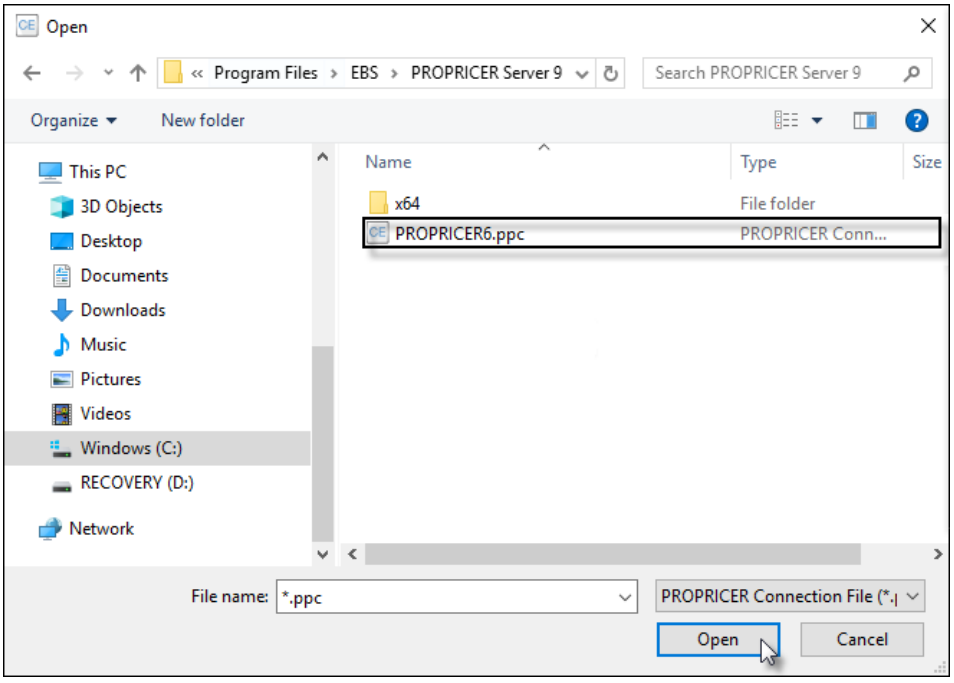
5. Accept the default location for the client files, or click **Browse** to select a different folder, then click **Next**.



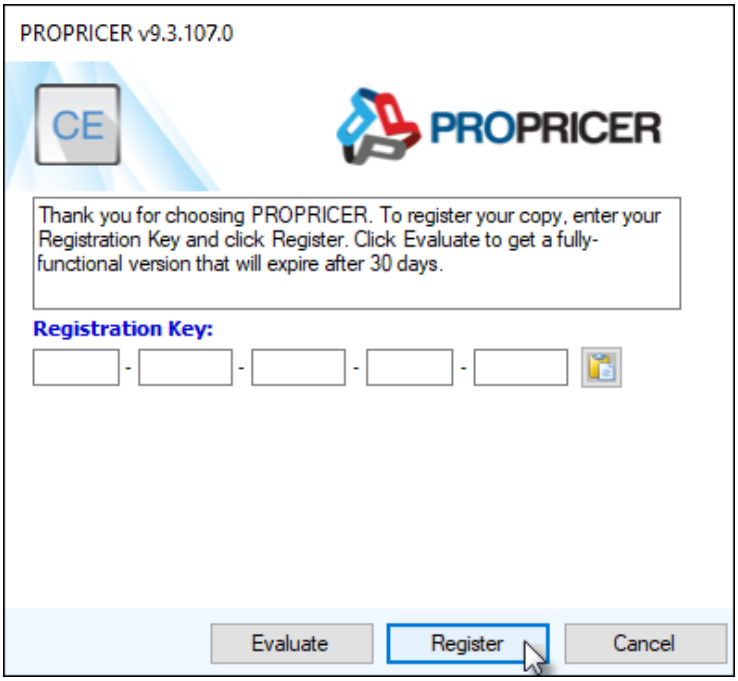
6. Accept or change the default Program Folder name, then click **Next**.



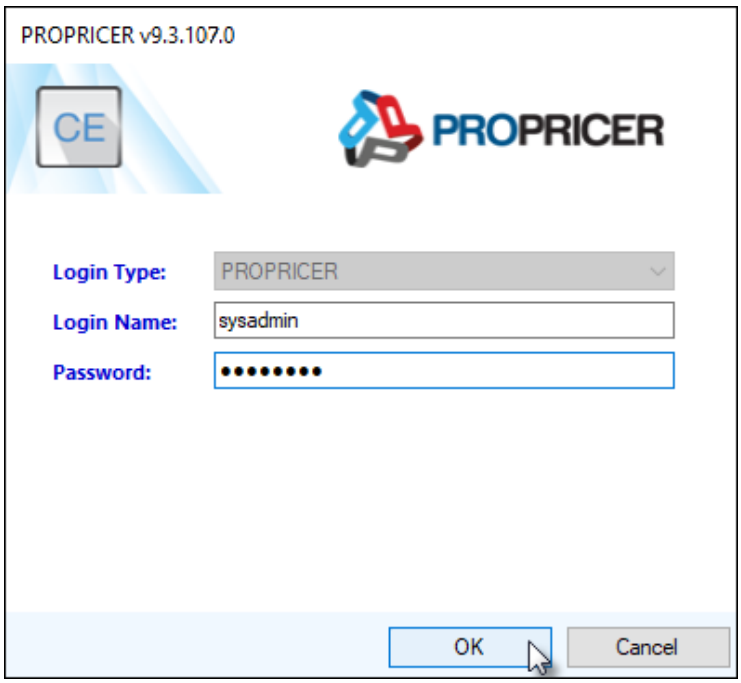
7. Select or clear any of the additional options, then click **Next**.
    - Create a desktop icon for PROPRICER after installation.
    - Copy configurations from previous installations of PROPRICER.
    - When PROPRICER is opened, notify the user that a .ppc file must be selected to connect to the database server.
    - Install the PROPRICER Import/Export Tool, a Microsoft Excel® add-in that lets you manage and edit PROPRICER data. To learn more about this tool, see the Import/Export Tool Quick Start Guide at support.propricer.com, or contact our Technical Support team.
8. Verify the settings, then click **Install**.
9. Click **Finish**.
10. The first time PROPRICER starts, the client will need to be pointed to the database using the .ppc file created in PROPRICER Server Manager. To do this, hold **Shift** while starting PROPRICER, select the file, then click **Open**.



11. Enter your registration key, then click **Register**. If you already provided the key during step 4, it will be entered here for you automatically.



12. For the PROPRICER login type, the default login name and password are both **sysadmin**. If you encounter an error that prevents you from logging in, contact PROPRICER Technical Support for troubleshooting.



Upgrading the PROPRICER Client

If an upgrade is available, the application server and the database must be upgraded first before the client can be upgraded. If the client is upgraded and the database and application server are not, or vice versa, the client will not be able to connect to the server.

To upgrade the PROPRICER client, download the installation file for the latest version of PROPRICER at support.propricer.com under the My Products tab. Double-click the file to run the installation.

During the installation, select **Install PROPRICER Import/Export Tool** to include our free Microsoft Excel add-in with the PROPRICER client.

All In One Installation

The client, server, and MSSQL Express (all in one) installation file is only recommended for standalone installations. Use it if:

- The PROPRICER client, application server, and database are going to be on the same system.
- The system is not intended to be connected to a network PROPRICER setup.

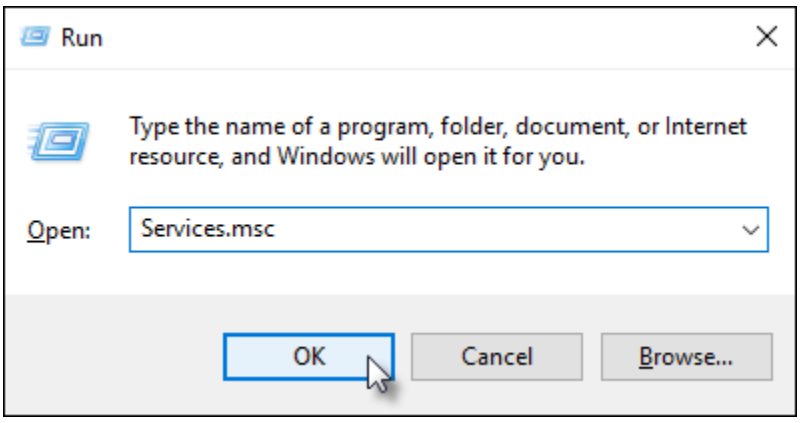
Troubleshoot Connection Error

You might receive the following error message:

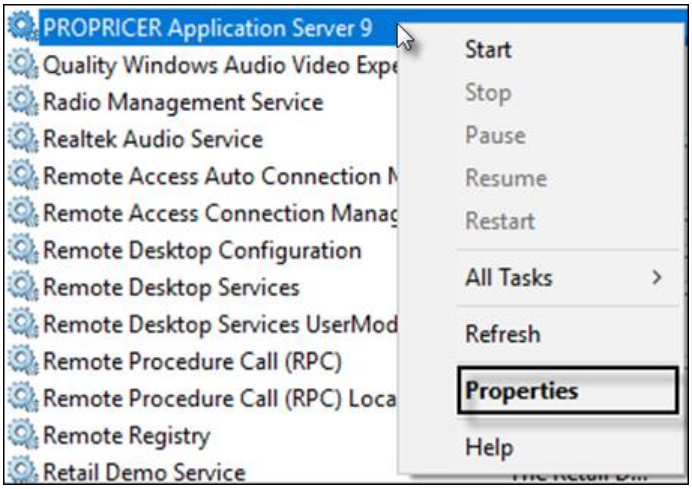
Cannot open database "NAME BASE NAME" requested by the login. The login failed. Login failed for user "USER NAME HERE".

If you encounter this error, the PROPRICER application needs the correct account to properly authenticate with the database.

1. Verify that you have Local Admin access or better on the target machine.
2. Press **Windows Key**+**R**. When prompted, type *Services.msc*, then click **OK**.

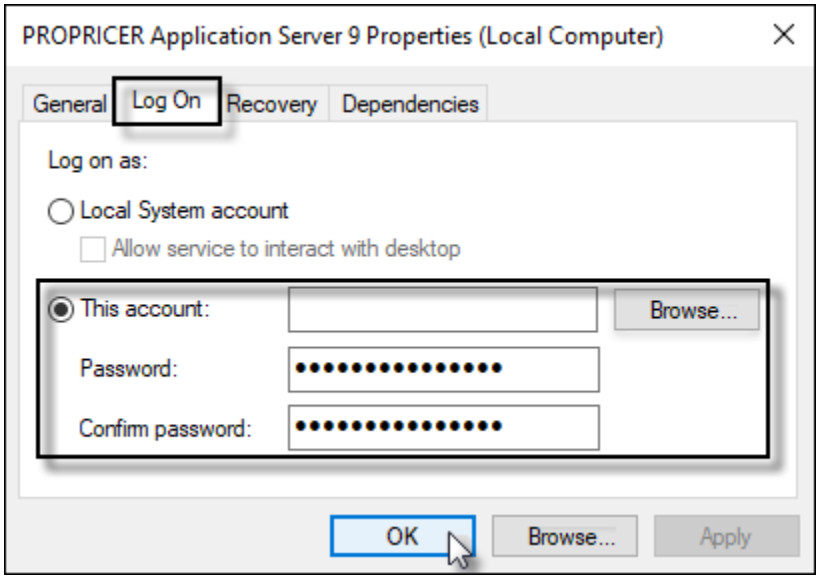


3. In the Services Console, right-click **PROPRICER Application Server 9**, then click **Properties**.

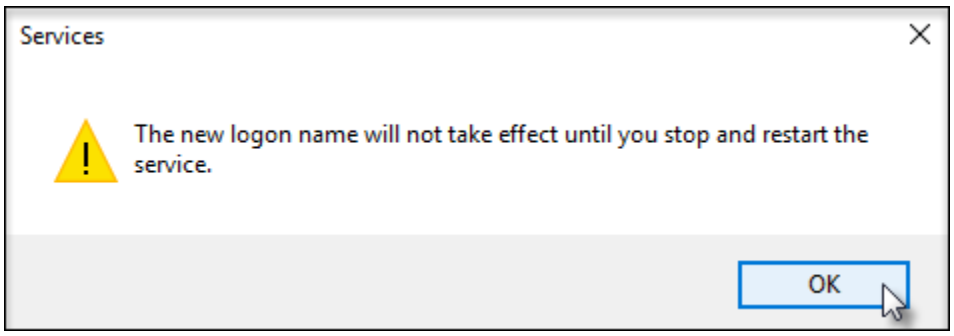


4. In the PROPRICER Application Server 9 Properties, click **Log On**. Then enter the Windows credentials that were used to install PROPRICER. Click **OK**.

   - If you are unsure which account to enter, click **Browse** > **Advanced** > **Find Now** for a list of possible user accounts. The account will be listed with the original error message.



5. A prompt to restart the application server service will appear.



6. Open PROPRICER Server Manager to restart the PROPRICER Application Server 9 service.

Terminal or Citrix Server

PROPRICER uses RAM heavily. On a Terminal or Citrix server, at least 4 GB of RAM should be dedicated to just the PROPRICER client.

When a Terminal or Citrix server is used, the PROPRICER registration key is linked to each computer or user. This means that any time users attempt to log in on another machine, they must enter the key and activate PROPRICER again. For this reason, concurrent licenses are recommended in this type of environment.

Prerequisites

- PROPRICER Database Setup
- PROPRICER Application Server
- .NET Framework 4.6.1

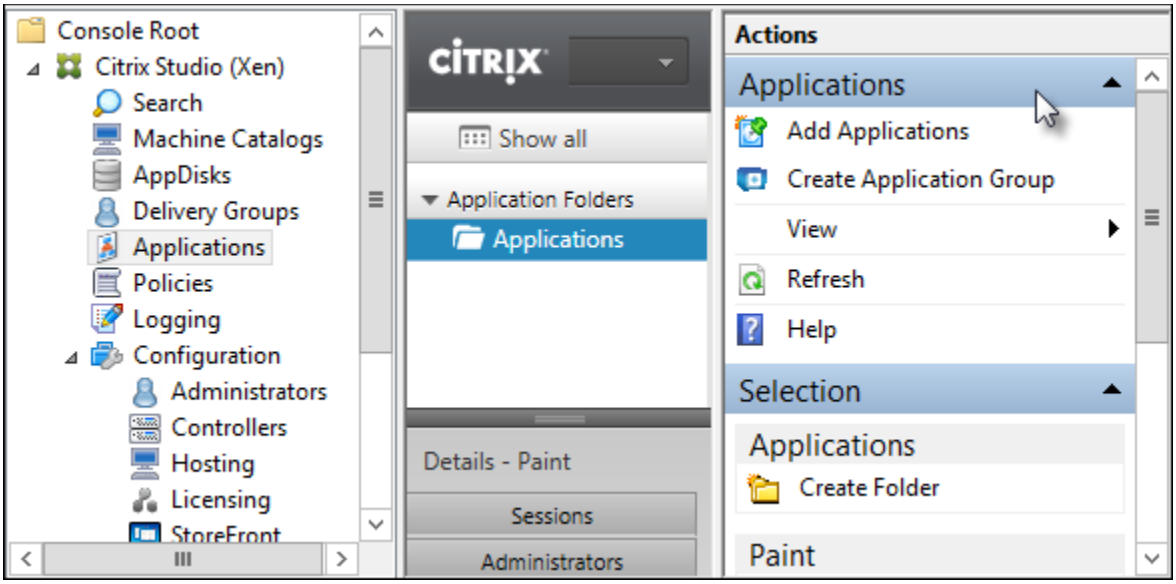
Downloads

PROPRICER client and server installation files can be downloaded from the PROPRICER Support Portal at support.propricer.com under the My Products tab.

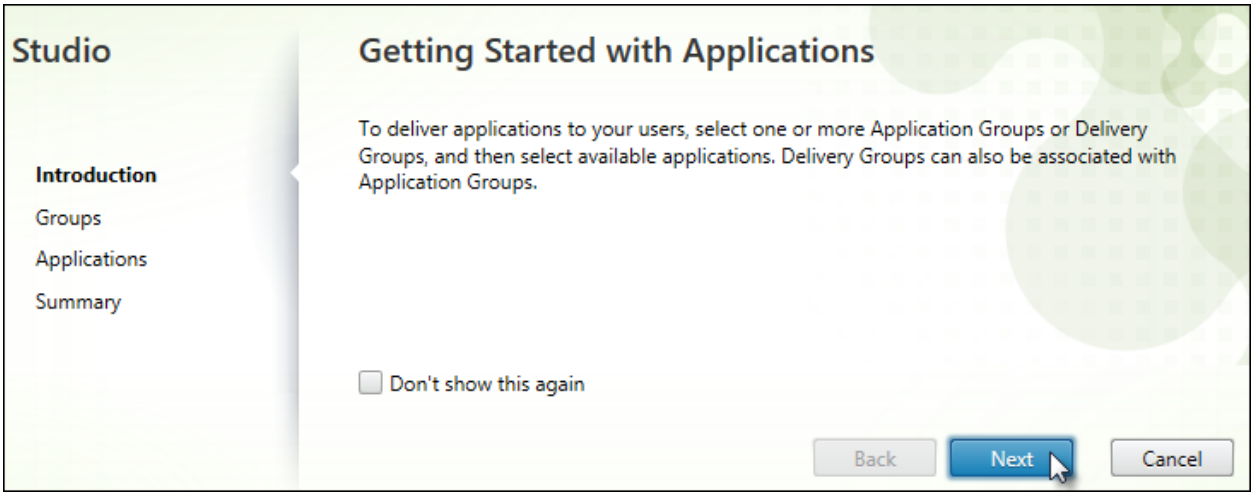
Installing the PROPRICER Client on a Terminal or Citrix Server

Repeat the first 13 steps from the Installing the PROPRICER Client section. Then begin with step one of the following procedure.

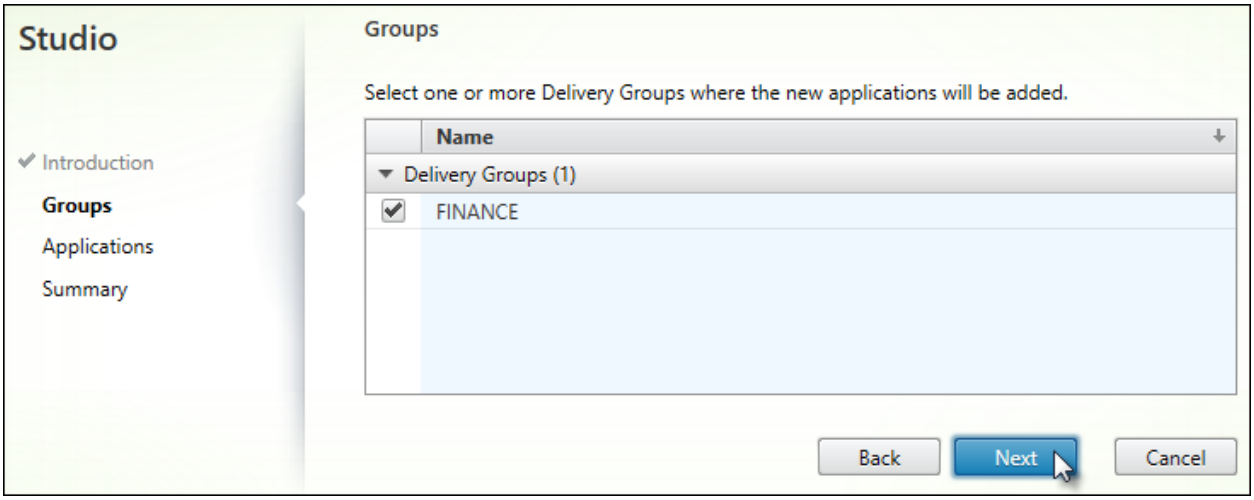
1. Open Citrix Studio, and after adding a VDA Image to Machine Catalogs and Delivery Groups, click **Applications** > **Add Applications**.



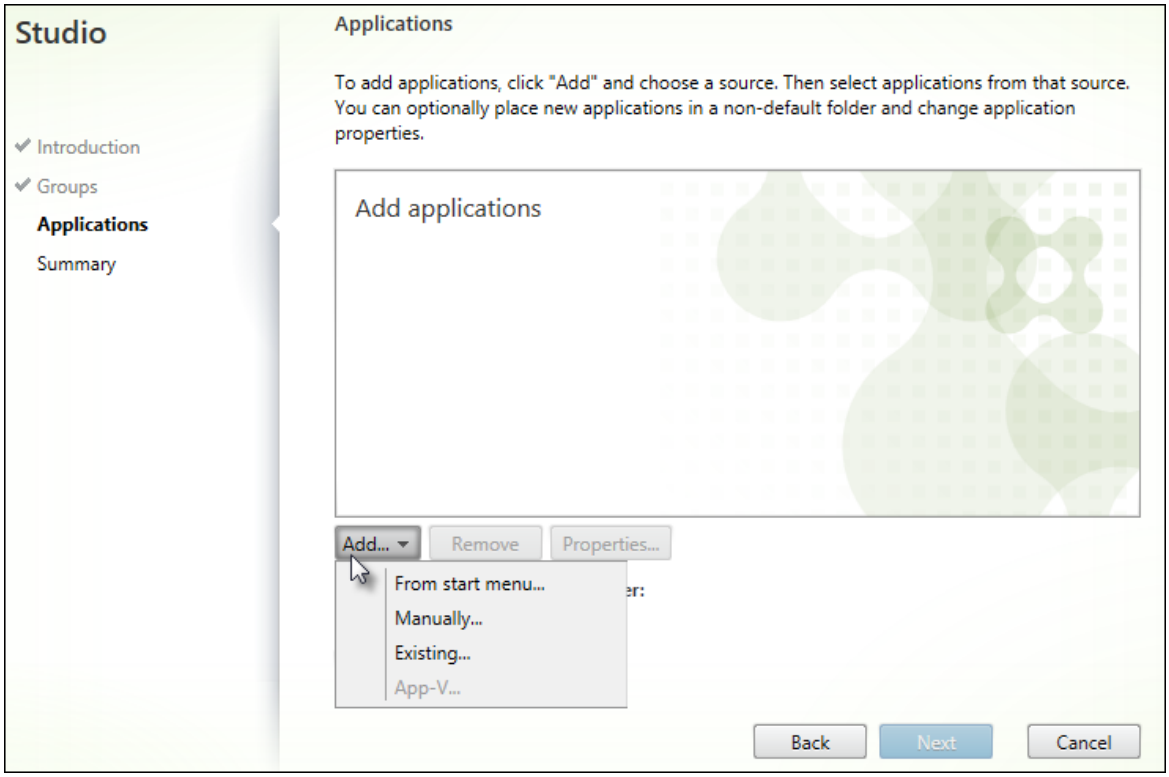
2. Click **Next**.



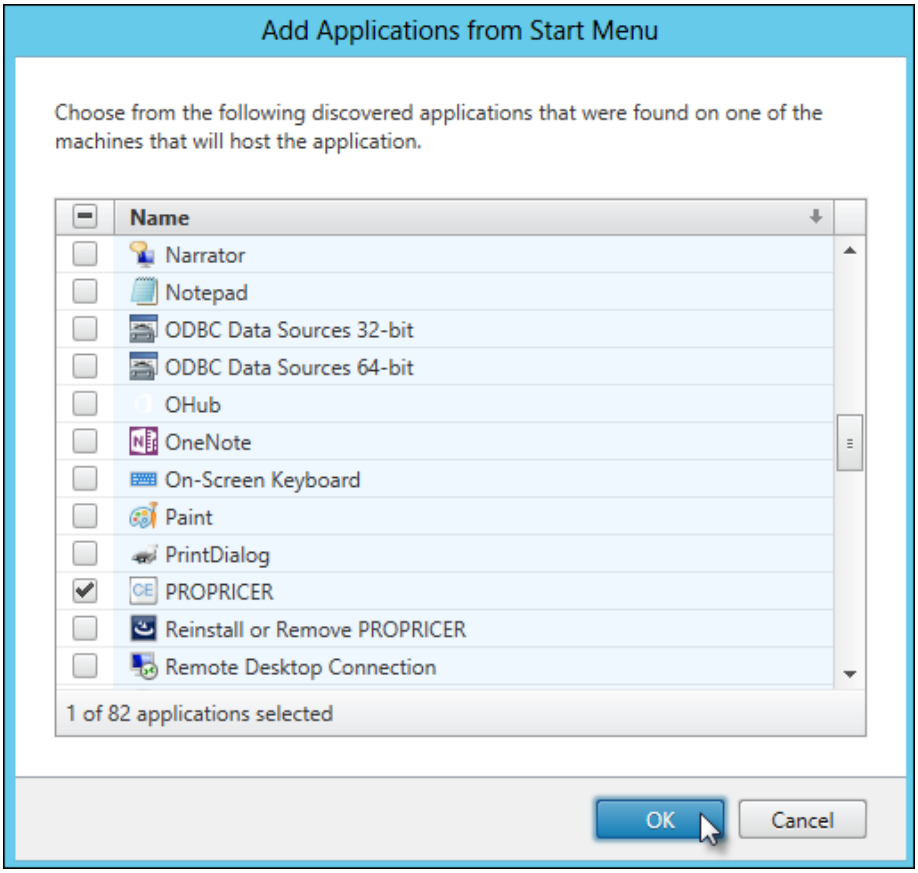
3. Select one or more Delivery Groups, then click **Next**.



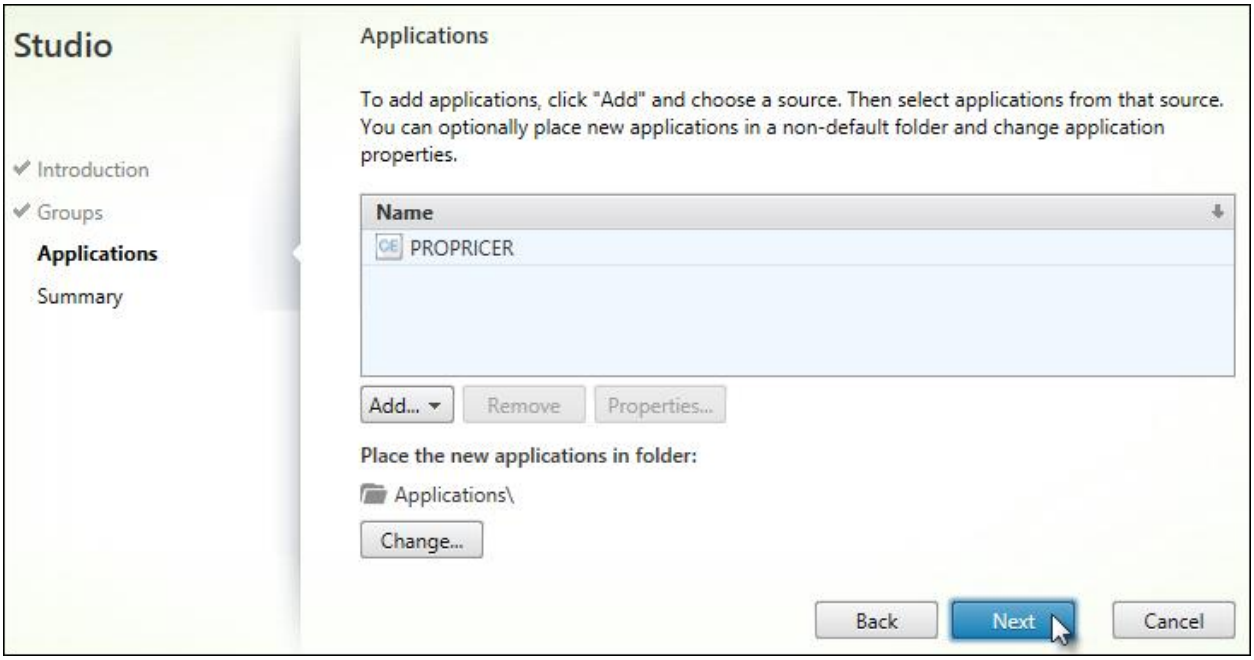
4. Click **Add** > **From start menu**. This will search for available applications.



5. After a search of the available applications, select **PROPRICER 9**, then click **OK**.



6. Click **Next**.



7. Review the summary, then click **Finish**.

Command Line Arguments for PROPRICER Tools

Database Setup

===ProPricerDatabaseSetup.exe===

/? or /h: Prints basic help

Usage for new SQL

/type:mssql /user:[USERNAME] /pwd:[PASSWORD] /server:[SERVER_NAME]
/dbase:[DATABASE_NAME] /tutorial:[yes/no]

Usage for new SQL with windows authentication

/type:mssql /winauth:[yes/no] /server:[SERVER_NAME] /dbase:[DATABASE_NAME]
/tutorial:[yes/no]

Usage for new SQL from dbsetupdata.bin

/type:mssql /from:file

Usage for new Oracle

/type:oracle /user:[USERNAME] /pwd:[PASSWORD] /dsource:[DATA_SOURCE]
/sysdba:[SYSUSER/SYSPASSWORD] /tspath_data:[INDEX_TABLESPACE_NAME_FILEPATH]
/tspath_index:[INDEX_TABLESPACE_NAME_FILEPATH] /tutorial:[yes/no]

Usage for new Oracle from dbsetupdata.bin

/type:oracle /from:file

Usage for upgrade SQL

/type:upgrade /cfgname:[CONNECTION_NAME]

Usage for upgrade Oracle

/type:upgrade /cfgname:[CONNECTION_NAME] /tsname_data:[DATA_TABLESPACE_NAME]
/tsname_index:[INDEX_TABLESPACE_NAME]

Usage for saving upgrade file MSSQL

/type:printinfo -upgrade /cfgname:[CONNECTION_NAME]

Usage for saving upgrade file ORACLE

```
/type:printinfo -upgrade /cfgname:[CONNECTION_NAME]
/tsname_data:[DATA_TABLESPACE_NAME] /tsname_index:[INDEX_TABLESPACE_NAME]
```

Usage for printing information

```
/type:printinfo /print:dbinfo
```

Server Manager

```
===ProPricerServerManager.exe===
```

```
/? or /h: Prints basic help
```

Create connection MSSQL

```
/t:mssql /n:[NAME] /d:[DESCRIPTION] /u:[USERNAME] /p:[PASSWORD] /s:[SERVERNAME]
/db:[DATABASE]
```

Create connection Oracle

```
/t:oracle /n:[NAME] /d:[DESCRIPTION] /schema:[SCHEMANAME] /p:[PASSWORD] /sid:[SID]
/db:[DATABASE]
```

Create connection with windows authentication

```
/t:mssql /n:[NAME] /d:[DESCRIPTION] /wa /s:[SERVERNAME] /db:[DATABASE]
```

Create connection as dba

```
/t:oracle /n:[NAME] /d:[DESCRIPTION] /schema:[SCHEMANAME] /p:[PASSWORD] /sid:[SID]
/db:[DATABASE] /dba
```

Optional parameter *[/quiet]* for Silence Mode

PROPRICER Client

```
===ClientConfig.exe===
```

Load UI with a file

```
ClientConfig.exe [PPC_FILE_PATH]
```

Create a .ppc connection file

```
ClientConfig.exe /s:[SERVER] /p:[PORT] /c:[CONNECTION_NAME] /file:[OUTPUT_FILEPATH]
```

```
===ProPricer.exe===
```

PPC Selection logic:

If **Shift** is held when opening PROPRICER, an open file dialog box appears.

If there are no arguments, the program first loads the last .ppc connection files used.

If there are no last used .ppc connection files, the program uses the default .ppc connection file.

If no default .ppc connection file exists on the directory, a file explorer dialog box appears.

Open PROPRICER with a specific configuration file

```
ProPricer.exe [PPC_FILE_PATH]
```

Open PROPRICER with a specific configuration argument

```
ProPricer.exe /s:[SERVER] /p:[PORT] /c:[CONNECTION_NAME]
```

Silent Installation, Upgrade, or Removal

Use command prompts or Microsoft System Center Configuration Manager (SCCM) to run a silent installation, silent upgrade, or silent removal of PROPRICER. A silent installation can be helpful when PROPRICER is needed on multiple machines.

Before any action can be taken, the Files for Silent Install must be downloaded from the PROPRICER Support Portal and extracted to a known location that can be easily accessed.

Run a Silent Installation

Find the extracted files that were downloaded from the PROPRICER Support Portal, and make sure the file *SetupInstall.iss* is included. Then run this command as an administrator:

```
9_3_108_0_pp_ce_sccm_x64.exe /s
/f1"C:\Users\QA\Desktop\9_3_108_0_pp_ce_sccm_x64\SetupInstall.iss"
```

Notice that the only spaces in the string are before and after `/s`. The `s` means that the command is being run in “silent” mode. If you would like to edit the parameters that the file installs PROPRICER with, open the file in Notepad and make your desired changes. For example, if you would like the installation to create a default .ppc connection file, change the string `CreateDefaultPPC=0` to `CreateDefaultPPC=1`. If you would like to include your own .ppc connection file in the installation, place a copy of the file in the extracted folder location prior to running the silent installation file.

Record the Installation Process

To record the installation process rather than edit the *SetupInstall.iss* file to set your parameters, begin by navigating to the folder that contains the extracted files. Then run this command as an administrator:

```
9_3_108_0_pp_ce_sccm_x64.exe /r
/f1"C:\Users\QA\Desktop\9_3_108_0_pp_ce_sccm_x64\SetupInstall.iss"
```

Notice that the only spaces in the string are before and after `/r`. The `r` means that the command is being run in “record” mode. After the .iss file has been set up to record, double-click the *9_3_108_0_pp_ce_client_sccm_x64.exe* file and install PROPRICER with your desired parameters. Make sure this is a clean installation to ensure that your parameters are recorded correctly.

Run a Silent Upgrade

Run a silent upgrade of PROPRICER with the *SetupUpdate.iss* file by running this command as an administrator:

```
9_3_108_0_pp_ce_client_sccm_x64.exe /s
/f1"C:\Users\QA\Desktop\9_3_108_0_pp_ce_client_sccm_x64\SetupUpgrade.iss"
```

- **Note: Please follow the link below for all the possible settings and parameters:**

http://helpnet.flexerasoftware.com/installshield19helplib/helplibrary/IHelpSetup_EXECmdLine.htm

Run a Silent Removal

Run a silent removal of an installation with the *SetupRemove.iss* file by running this command as an administrator:

```
9_3_108_0_pp_ce_sccm_x64.exe /s
/f1"C:\Users\QA\Desktop\9_3_108_0_pp_ce_sccm_x64\SetupRemove.iss"
```

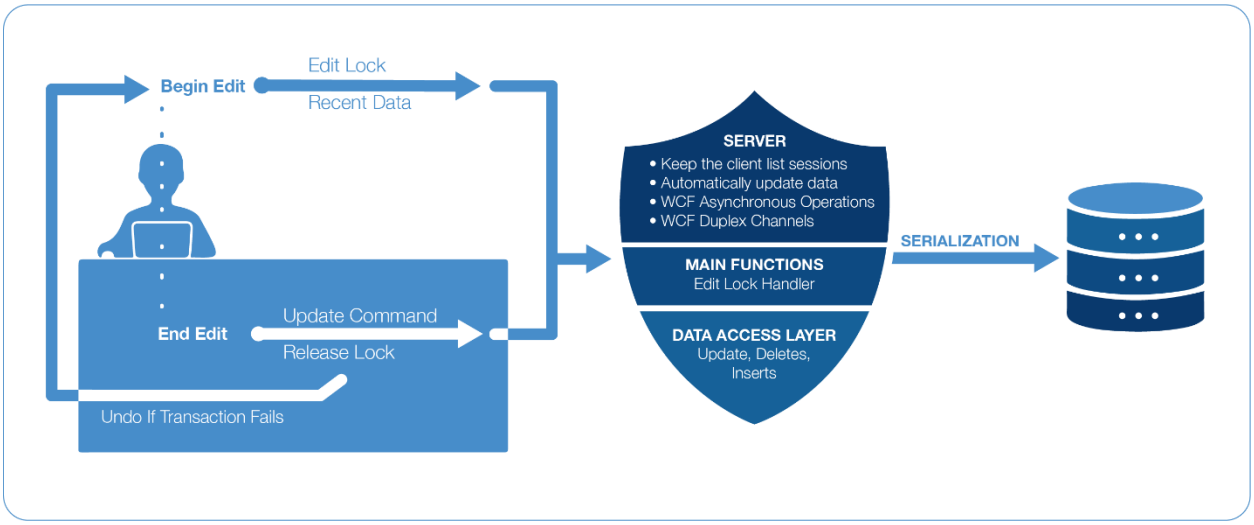
PROPRICER Architecture

This section of the installation guide is a reference for understanding the structure of the PROPRICER client, server, database, and their administrative programs.

Client-Server Communication

The communication between PROPRICER clients and the server is implemented with the Windows Communication Foundation (WCF) of the Microsoft .NET Framework.

The WCF supports a non-blocking, asynchronous operation between clients and services where a sequence of operations is executed out of time coincidence with any event. The asynchronous method uses message queues as the transport for delivery and receipt of the message of threads. WCF also supports operations that occur without a regular or predictable time relationship to a specified event.



WCF Duplex Channel

A “duplex” message exchange pattern is based on a series of one-way interactions that form a complete conversation. For example, a long running operation can be started by a single method call for which the client does not have to wait for completion. The server can then periodically notify the caller about the percentage of work that has been completed.

Security

When using Windows Authentication, the Transmission Control Protocol (TCP) channel is configured to "Transport Mode Security.” Security for the transport mode is provided by implementing Transport Layer Security (TLS) over TCP (a successor of SSL). The TLS implementation is provided by the operating system. When using PROPRICER authentication the data is encrypted using AES.

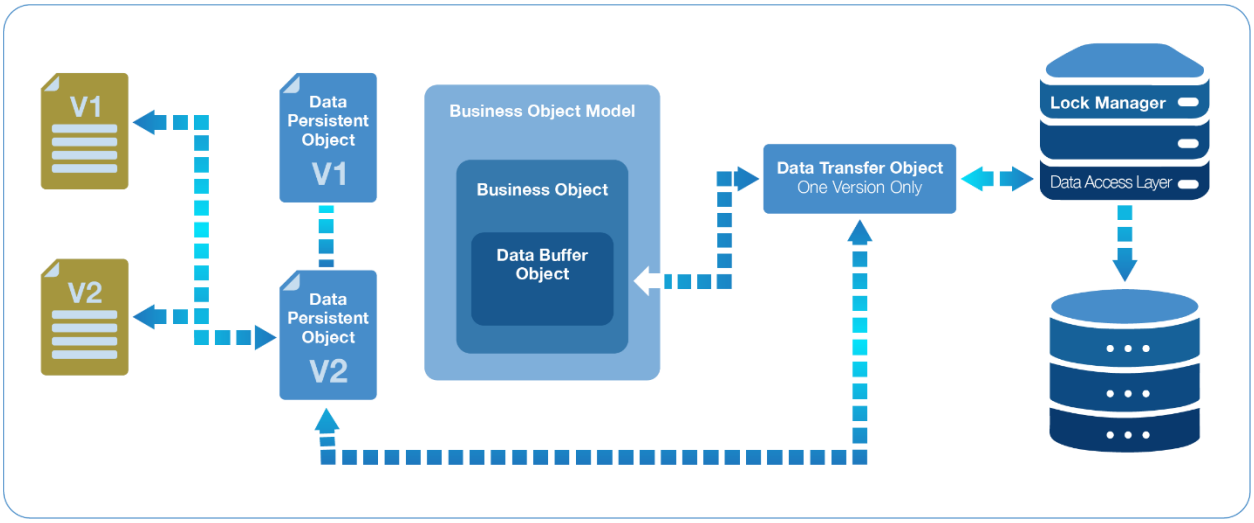
PROPRICER Data Model (API)

The PROPRICER data model can be made accessible to other applications with our Application Programming Interface (API). Our API provides access to all the data in a PROPRICER database.

Data Model Terms

- BOM: Business Objective Model
- DAL: Data Access Layer
- BO: Business Object
- DTO: Data Transfer Object
- DBO: Data Buffer Object
- DPO: Data Persistent Object

Data Model

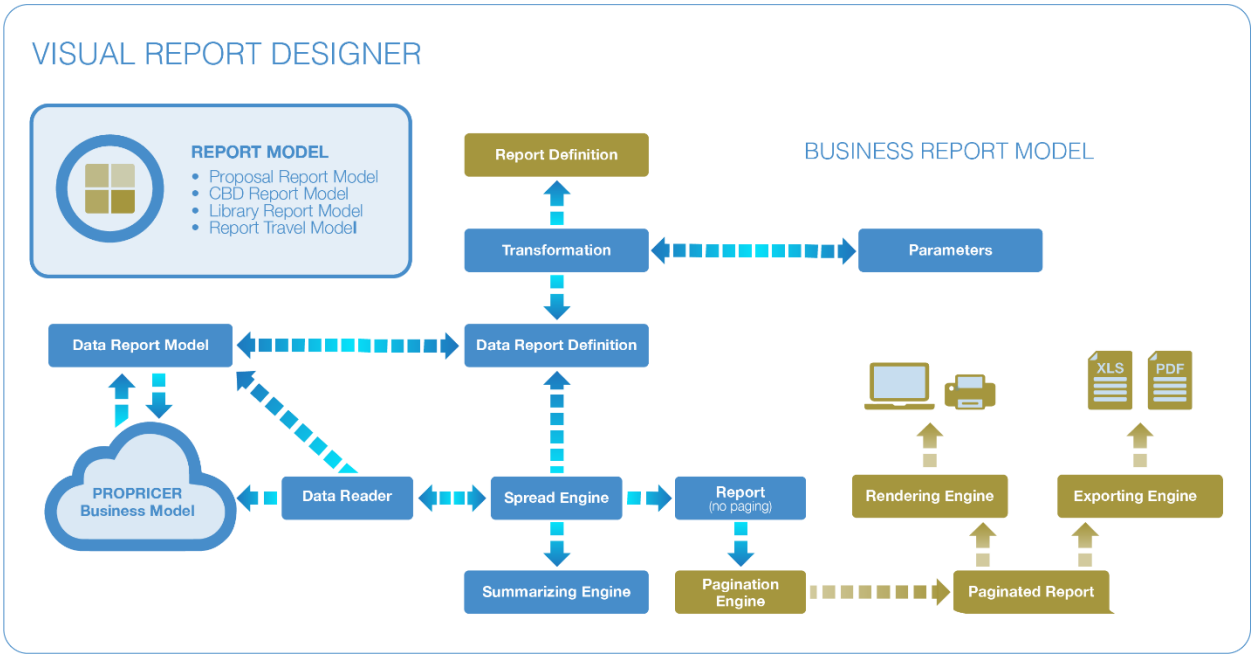


User Interface

- Standard components of the PROPRICER user interface such as tabs, forms, textboxes, labels, buttons, and grids come from the third party developer, DevExpress WinForms.
- In multi-user environments, PROPRICER data is updated automatically without the need to manually refresh.
- The user interface allows multiple tabs to be open but does not support running multiple processes at the same time.

Reports

PROPRICER 9 uses the following report engine model for its Report Designer feature.



Technical Support

Your PROPRICER maintenance plan gives you access to 24/7 emergency technical support. Please contact us if you need help installing or using PROPRICER, or if you have questions about this installation guide.

Phone: 951-693-0440

Email: support@propricer.com

Website: support.propricer.com

Address: Executive Business Services, Inc.

Attn: Technical Support Department

43398 Business Park Drive

Temecula, CA 92590