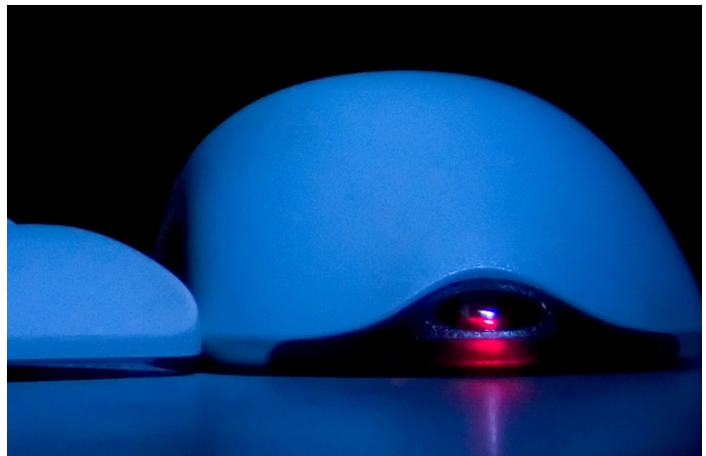




ASPEN

Full Installation Guide



Information in this procedures guide is subject to change without notice.

All brand or product names are trade names, service marks, trademarks, or registered trademarks of their respective companies or organizations.

Systems Environment

Application Development: Microsoft Visual C++ and C# 2008 (9.0), .NET 3.51 SP1, .NET 4.6.1 or later (ASE-Q only)

Desktop Database (ASE-Q only): SQL Anywhere 11

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0

Oracle Instant Client 19.18.0.0 - 32 bit

Optional System Environments

MAPI Compliant E-mail client to support e-mail transfer of survey information

Note: This document can be viewed online or printed in a duplex (two-sided) format. Blank pages have been automatically inserted as needed for correct pagination in the printed copy.

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Introduction

The ASPEN suite of software typically can be upgraded when new versions are released. Occasionally, it is necessary to perform a full installation of all software. This guide provides the steps you need to perform a complete installation of the ASPEN suite of software.

About this Installation Guide

The *ASPEN Full Installation Guide* gives you the information you need to:

- Prepare the system for installation
- Select the appropriate installation option
- Install the software
- Prepare software for use

Note: This guide assumes that you are familiar with basic Microsoft Windows operations.

View this Document Online

You must have Adobe Reader installed to view this document online. You can download the latest version from <https://get.adobe.com/reader/>.

On any page, you can click the Increase (+) or Decrease (-) button in the toolbar to adjust the page magnification to your comfort level. Use the bookmarks in the left pane of Adobe Reader to locate and go (click the bookmark) to relevant information in this installation guide.

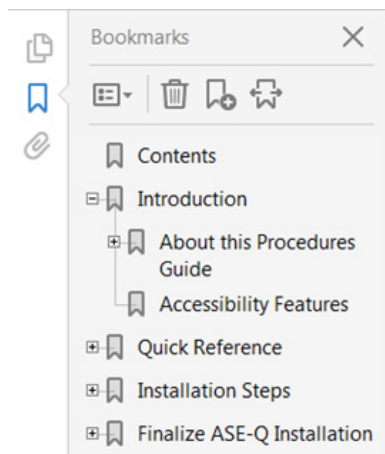


Figure 1: Bookmarks

You can also click the Contents bookmark and then click links in the table of contents to go to relevant topics.

TIP: For best viewing quality in the Adobe Reader, go to **Edit | Preferences | Page Display** (path may vary somewhat depending on version). Select the applicable Smooth Text option.

View a Printed Copy of this Document

While it is designed to be used easily online, you can print this document if you prefer. If you print this document, use the Table of Contents to locate the information you need. Links (cross-references) to additional material in this document include page numbers; simply go to the indicated page.

Conventions

This guide uses the following conventions:

Bold In procedures: names of screens, screen sections, windows you open; and buttons, menu options, keys you press.

web Generic reference to the World Wide Web.

More ... Introduces a list of “see also” cross-references.

Note: Notes give you important information that may affect how you use a function.

Tip: Tips give you useful hints, suggestions, or alternative approaches.

CAUTION! Caution statements alert you to very important information to help perform the steps successfully.

Accessibility Features

This installation guide incorporates the following 508-compliant accessibility features:

- Alternate text (alt text), which screen readers can read, is defined for all graphics. In the Screens chapter, there are links (cross-references) to the field/column descriptions for the indicated screen or section of screen.
- All graphics have captions.
- Information is not conveyed by means of color alone.
- Tables are not used for formatting, so all text is accessible to screen readers.
- Windows keyboard shortcuts are included in the Supporting Materials chapter for easy reference.
- Reading order is optimized, so content is read correctly by screen readers.

Quick Reference

The following briefly covers the basic steps necessary for most ASPEN software installations.

CAUTION! Always close all other programs before installing new software. You must have administrative privileges to perform the install.

Before beginning

- Copy the ASPEN Install DVD contents to a central location.

Identify a new folder location for your ASPEN files

- New ASPEN files should not be installed to the same folder as earlier versions of ASPEN.
- We recommend you accept the default location, C:\ASPEN.

Install ACO/ACTS shared files on the network

- Browse to the folder you created in the preliminary setup and click **Setup.exe** to launch ASPEN setup.

Note: You must have administrative privileges to run setup.exe.

- In the Select Features window select **ACO Shared** and **ACTS Shared**.
- Click **Next** and follow the on-screen instructions through the remainder of the install process.

Install ACO/ACTS client files on workstations

- From each workstation any user with administrative privileges can browse to the folder created in the preliminary setup and launch **Setup.exe**.
- In the Select Features window, select **ACO Client** and **ACTS Client**.

Note: If appropriate, you can choose to install ASE-Q and the Sybase database at the same time.

- Click **Next** and follow the on-screen instructions through the remainder of the install process.

This installation is fully described in [“Installing ACO and ACTS Client Files on a Workstation” on page 15](#).

Install standalone ASE-Q on a laptop

- Insert the ASPEN Install DVD or USB Drive.
If the laptop has access to the central location from the Preliminary Setup section, you can install from that location instead.
- Right-click **Start**, then select **Run**; browse to and select **Setup.exe**; then click **OK**.

Note: You must have administrative privileges to run setup.exe.

- In the Select Features window select **ASEq**. All ASE-Q installs are full installs.
- Click **Next** and follow the on-screen instructions through the remainder of the install process.

This installation is described in [“Installing ASE-Q” on page 17](#).

Install ACO, ACTS, and/or ASE-Q on a new workstation

- The procedure to install ASPEN on a new workstation is the same as the installs on existing workstations. See [“Installing ACO and ACTS Client Files on a Workstation” on page 15](#).

CAUTION! Anytime you use the ASPEN Installer, select *ALL* the components that you want installed on the current machine. Any component that is not selected will be uninstalled.

For example, if you have already installed the latest version of ACO Shared and now need to add the latest version of ACTS Shared, select BOTH ACO Shared and ACTS Shared, or ACO will be uninstalled.

Installation Steps

CAUTION! Always close all other programs before installing new software. You must have administrative privileges to perform the install.

Choose your Installation Options

The first action you take each time you install ASPEN is to select your install options in the **Select Features** window. Select from the following options:

- ASE-Q
- ACO
 - ACO Client
 - ACO Shared
- ACTS
 - ACTS Client
 - ACTS Shared

CAUTION! When installing, always select *ALL* ASPEN software you are currently operating on this machine. If you install ACO then later want to install ACTS, select both ACO and ACTS during the second install. You can install ASE-Q with ACO/ACTS client files.

ASE-Q

Select this box when you are installing ASE-Q. You can choose it in addition to the ACO/ACTS installs.

ASPEN allows a single type of ASE-Q install. The default location puts the files in the C:\ASPEN\ASEQ folder.

ACO Shared/ACTS Shared

These options install ASPEN shared files to a network location.

ACO Client/ACTS Client

This option installs the workstation client files for ACO and/or ACTS. The install default location is the C:\ASPEN folder. The process takes only a few minutes, and the need for user input is minimal. This installation is described in detail [“Installing ACO and ACTS Shared Files on a Network” on page 13](#).

Install the Software

ASPEN requires a full install, with ACO/ACTS shared files on the network and client files on each workstation.

Some installation considerations:

Due to its size, the ASPEN full installer is distributed on DVD. If some of your machines do not have a DVD drive, you can copy the install files to any USB drive, and perform the install from there.

Note: Installing ASPEN from a network drive is not recommended. However, you can map a drive to install over a network. Do not install to a drive that has been mapped using SUBST or NET USE. The ASE-Q Sybase database cannot connect to these mapped drives.

The default installation places the latest ASPEN files into a new ASPEN folder on your hard drive (C:\ASPEN) that may co-exist with the obsolete ASPEN files on the same machine. If you have an existing C:\ASPEN folder, you may want to re-name it so you can accept the default location during the install procedure.

Once you have selected the type of installation, the on-screen instructions guide you through the process. This document covers a typical installation for each of the three options:

- Installing ASPEN Shared Files on a Network
- Installing ASPEN Client Files on Workstations
- Installing ASE-Q standalone

CAUTION! Always close all other programs before installing new software.

Installing ACO and ACTS Shared Files on a Network

This procedure describes installing the shared components of ACO and ACTS on a network.

To install ACO and ACTS shared files on a network:

- 1 On the desktop, right-click **Start**, then select **Run**, and navigate to the folder containing your ASPEN install files. Setup.exe is in the root directory.
- 2 Double-click **Setup.exe** to launch the ASPEN Installer.

Note: You must have administrative privileges to run setup.exe.

Prerequisite Installs

The ASPEN Installer first checks your system for prerequisite programs. It searches for the Windows Installer, .NET and the Microsoft Report Viewer. If any of these programs are not present, you will need to install before continuing. Follow the on-screen prompts for any necessary installations.

- Click **Install** for each program the installer prompts you to install.

Depending on the programs that are installed, you may be asked to reboot your system to continue. The install automatically continues after reboot.

- 3 On the Welcome screen, click **Next**.
- 4 On the Select Features screen, click the plus sign (+) next to both **ACO** and **ACTS** to expand the tree.
- 5 Then select **ACO Shared** and **ACTS Shared**; click **Next**.

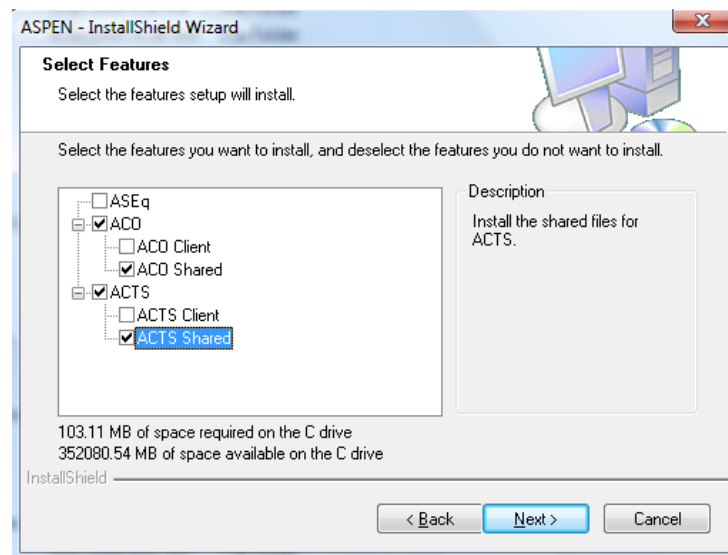


Figure 2: Selections expanded in Select Features screen

CAUTION! Anytime you use the ASPEN Installer, select *ALL* the components that you want installed on the current machine. Any component that is not selected will be uninstalled.

For example, if you have already installed the latest version of ACO Shared and now need to add the same version of ACTS Shared, select *BOTH* ACO Shared and ACTS Shared, or ACO will be uninstalled.

- 6 Click **Next** to install ACO to the default location, C:\ASPEN\ACO (recommended), or browse to and select a different location, then click **Next**.
- 7 On the InstallShield Wizard Complete screen select **Yes** to have the installer restart your computer, then click **Finish**.

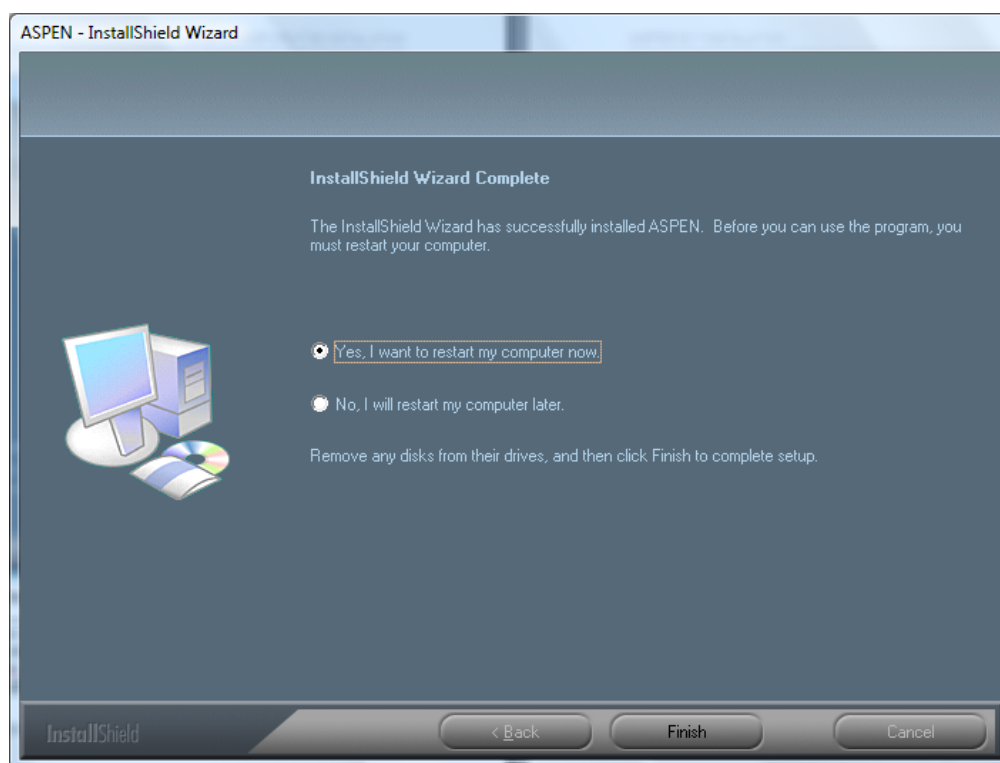


Figure 3: Installation complete screen

This completes the ACO/ACTS network installation.

Installing ACO and ACTS Client Files on a Workstation

This procedure describes installing ACO and ACTS on a workstation.

To install ACO and ACTS client files on a workstation:

- 1 On the desktop, right-click **Start**, then select **Run**, and navigate to the folder containing your ASPEN install files. Setup.exe is in the root directory.
- 2 Double-click **Setup.exe** to launch the ASPEN Installer.

Note: You must have administrative privileges to run setup.exe.

Prerequisite Installs

The ASPEN Installer first checks your system for prerequisite programs. It searches for the Windows Installer, .NET and the Microsoft Report Viewer. If any of these programs are not present, you will need to install before continuing. Follow the on-screen prompts for any necessary installations.

- Click **Install** for each program the installer prompts you to install.

Depending on the programs that are installed, you may need to reboot your system to continue. The install automatically continues after reboot.

- 3 On the Welcome screen, click **Next**.
- 4 On the Select Features screen click the plus sign (+) next to both **ACO** and **ACTS** to expand the tree.
- 5 Then select **ACO Client** and **ACTS Client**; click **Next**.

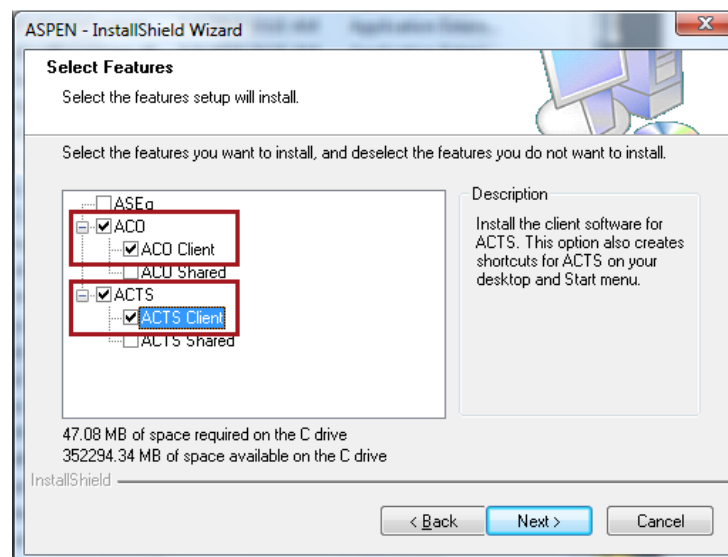


Figure 4: Selections expanded in Select Features screen

CAUTION! Anytime you use the ASPEN Installer, select *ALL* the components that you want installed on the current machine. Any component that is not selected will be uninstalled.

For example, if you have already installed the latest version of ACO Client and now need to add the same version of ACTS Client, select *BOTH* ACO Client and ACTS Client, or ACO will be uninstalled.

- 6 Click **Next** to install ACO to the default location, C:\ASPEN\ACO (recommended), or browse to and select a different location, then click **Next**.
- 7 Click **Next** to install ACTS to the default location (recommended), or browse to and select a different location, then click **Next**.
- 8 On the InstallShield Wizard Complete screen select **Yes** to have the installer restart your computer, then click **Finish**.

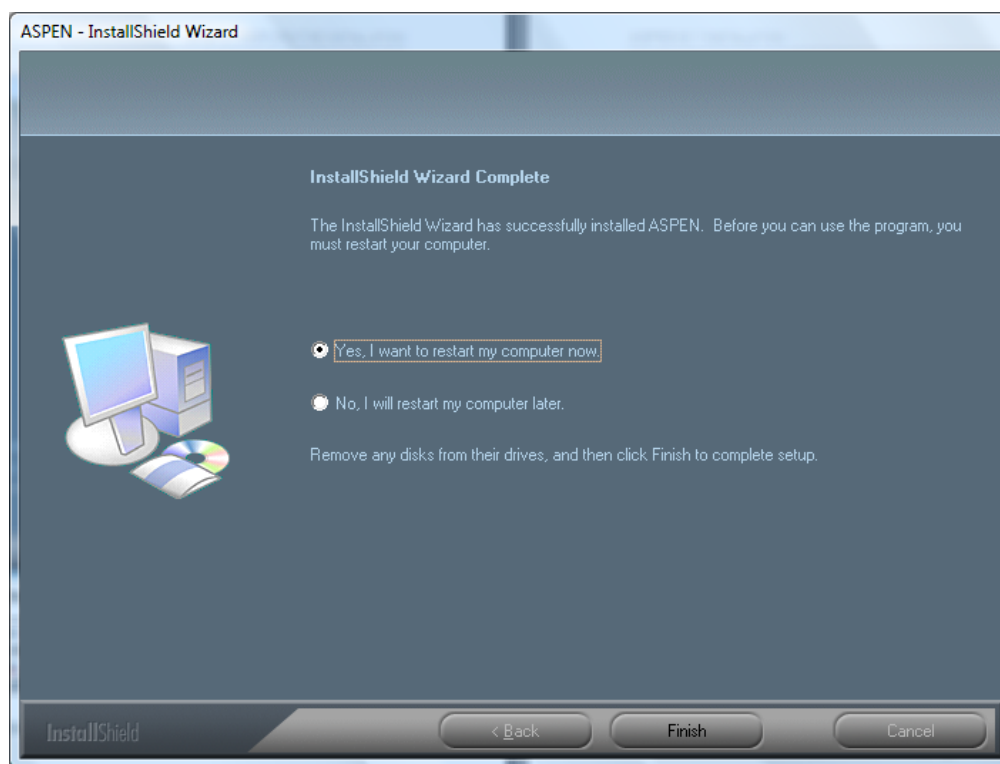


Figure 5: Installation complete screen

This completes the ACO/ACTS client installation.

For your convenience, the installer adds ACO and ACTS shortcuts to your desktop.

Installing ASE-Q

This procedure describes installing ASE-Q as a standalone install on a workstation. Some installation considerations:

- We recommend that if you have a current version of ASE-Q installed leave it untouched.
- You can change the location of the new ASPEN folder, but do not install to a drive that has been mapped using SUBST or NET USE. The Sybase database cannot connect to these mapped drives.

TIP: We do not recommend installing ASE-Q from a network drive.

To install ASE-Q on a workstation:

- 1 On the Windows desktop, right-click **Start**, then select **Run**, and navigate to the folder containing your ASPEN install files. Setup.exe is in the root directory.
- 2 Double-click **Setup.exe** to launch the ASPEN Installer.

Note: You must have administrative privileges to run setup.exe.

Prerequisite Installs

The ASPEN Installer first checks your system for prerequisite programs. It searches for the Windows Installer, .NET and the Microsoft Report Viewer. If any of these programs are not present, you will need to install before continuing. Follow the on-screen prompts for any necessary installations.

- Click **Install** for each program the installer prompts you to install.
Depending on the programs that are installed, you may be asked to reboot your system to continue. The install automatically continues after reboot.

- 3 On the Welcome screen, click **Next**.

- 4 In the Select Features window, select **ASEq**; click **Next**.

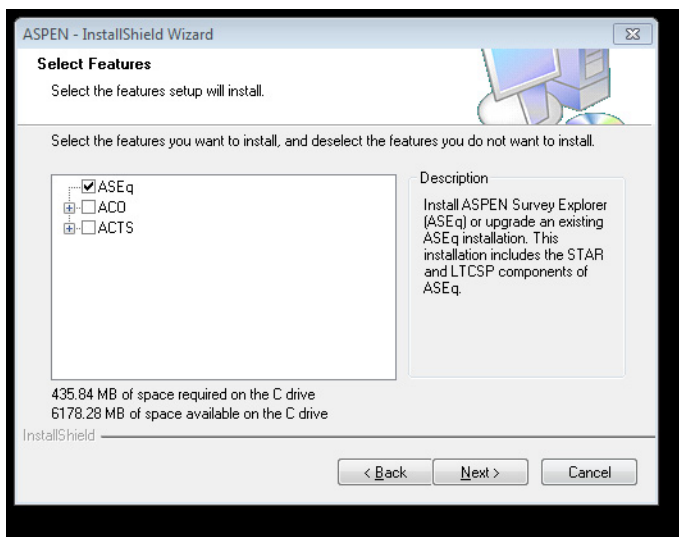


Figure 6: ASE-Q selected in Select Features screen

- 5 Click **Next** to install ASE-Q to the default location, C:\ASPEN\ASEQ (recommended), or browse to and select a different location, then click **Next**.

The following window appears when Sybase is successfully installed.

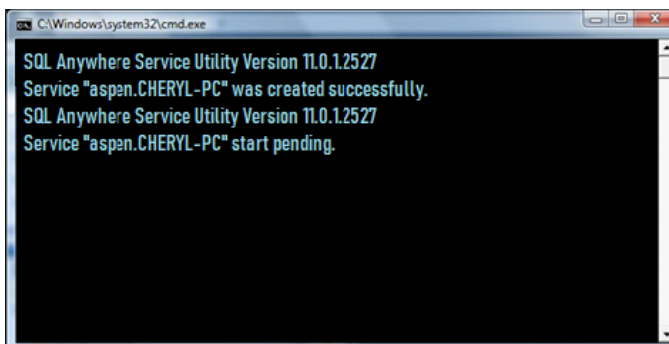


Figure 7: SQL Anywhere Installation completed screen

- 6 On the InstallShield Wizard Complete screen select **Yes** to have the installer restart your computer, then click **Finish**.

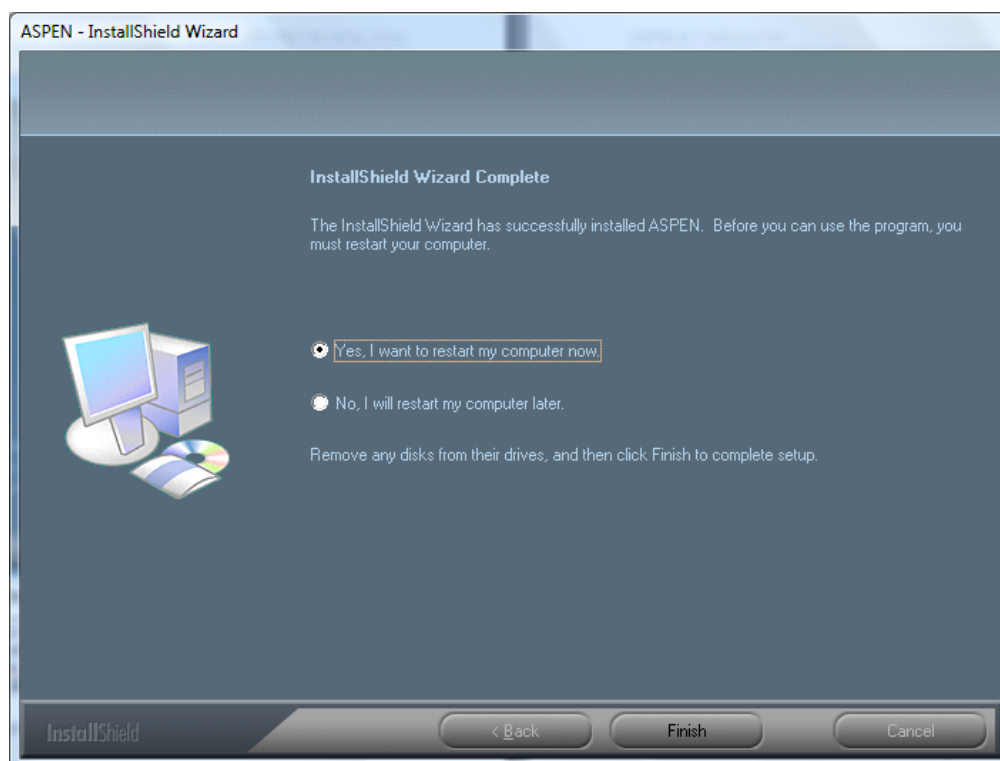


Figure 8: Installation complete screen

This completes the ASE-Q installation.

For your convenience, the installer adds an ASE-Q shortcut to your desktop.

Oracle Client Configuration

ASPEN now uses Oracle client software called the InstantClient. This client is different from Oracle client versions that ASPEN previously used. It does not require a separate installation program as it is dynamically installed when the ASPEN programs run for the first time.

To configure Oracle InstantClient:

- 1 Start ASPEN.

ASPEN looks for any existing Oracle client software and compares it to the version stored on the ASPEN update server. If no existing Oracle client is found, or if the current client is older than the version on the update server, the following message will appear.

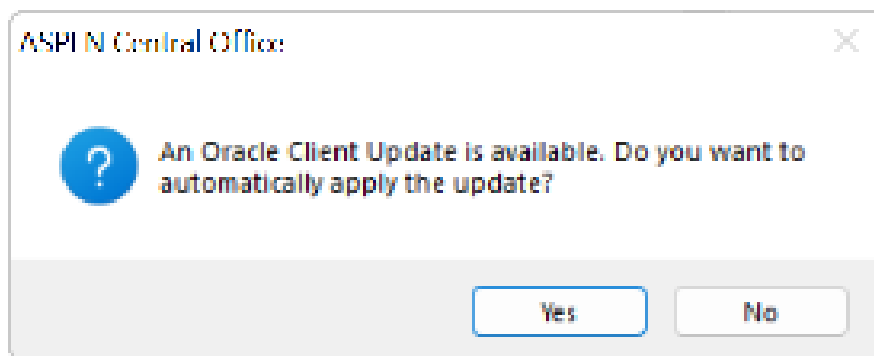


Figure 9: Oracle Client update message

- 2 Select **Yes**.

The Oracle InstantClient will automatically download and install into a new folder accessible to all ASPEN programs; by default, this folder is [C:\ASPEN\OracleInstantClient](#). This Oracle InstantClient will not interfere with any other Oracle client installed on the computer.

If ASPEN finds an existing Oracle client, it will attempt to copy the TNSNAMES.ORA and SQLNET.ORA files from the existing Oracle client. If those files cannot be located, a separate step is needed to complete the Oracle InstantClient configuration.

- ➡ The easiest way to do this is to copy TNSNAMES.ORA and SQLNET.ORA files from an existing computer with ASPEN Oracle connectivity. Assuming the default ASPEN installation location, the TNSNAMES.ORA and SQLNET.ORA files should be copied to the [C:\ASPEN\OracleInstantClient\network\admin](#) folder.

-or-

- ➡ Another option is to copy the TNSNAMES.ORA and SQLNET.ORA files into a new folder and set a Windows environment variable named TNS_ADMIN to that folder name. For example, copy the files to [C:\TNSINFO](#) and set the TNS_ADMIN environment variable to C:\TNSINFO. This is a good option to use if you have multiple Oracle home directories (multiple versions of Oracle installed on the same computer). All of the Oracle versions will look for the TNSNAMES.ORA and SQLNET.ORA in the folder identified by the TNS_ADMIN environment variable.

Finalize ASE-Q Installation

Once ASE-Q has been installed, you may need to do a few more things to ready the software for use. This chapter tells you how to:

- Export user accounts from ACO
- Open ASE-Q on a laptop for the first time
- Create a temporary password
- Transfer files using wired or wireless methods from ASE-Q to ASE-Q
- Shut down and restart the Sybase database

Export User Account Files from ACO

You can export user account files from ACO into ASE-Q. You will use this primarily to transfer user accounts to surveyor laptops for those who need to open ASE-Q for the first time. You can use this option to export data for one or multiple surveyors.

To export user account files from ACO:

- 1** In ACO, select **System, Specialty Info Transfer, Export ASE Users**.

The ASE User Export window defaults to a view of Users with ASE Accounts. You can also choose to view Users without ASE Accounts, or All Users.

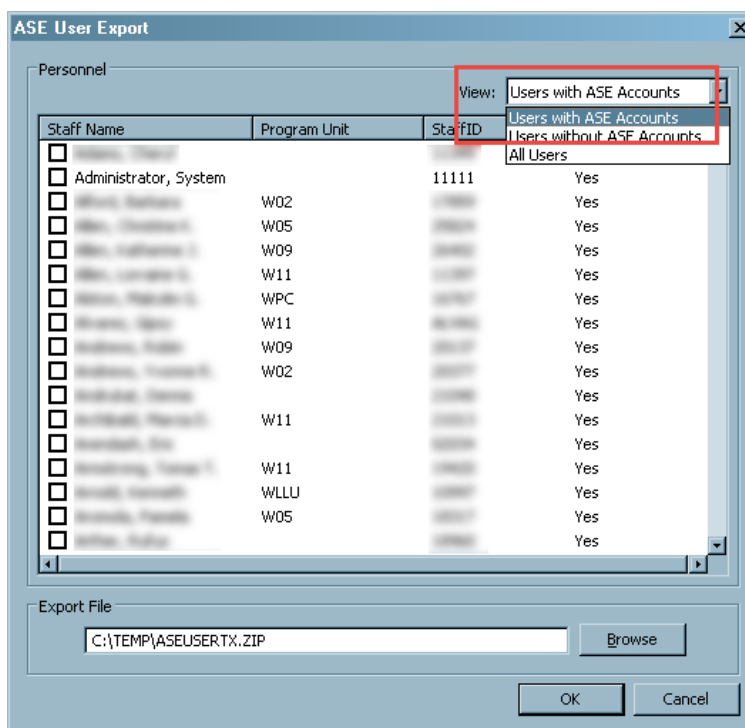


Figure 10: ASE-Q User Export window

- 2 Select the surveyors whose user account information you want to export.
- 3 Browse to or type in the location and name of the user account export file.

The default filename for user account files is ASEUSERTX.ZIP. You can change the name if, for example, you need to create different personnel files for use on different laptops. The .ZIP extension is mandatory.

On import, ASE-Q will check the file to confirm it contains personnel tables, then import the tables.

- 4 Click **OK** to transfer the user information.

Open ASE-Q on a Laptop for the First Time

The first time you use ASE-Q on a laptop, you will have to do some preliminary configuration.

To open ASE-Q on a laptop the first time:

- 1 Double-click the ASE-Q icon on your desktop.
- 2 When prompted, enter your **User Name** and **Password**.

At this point, Microsoft Windows validates the login information you provide against user information listed by the computer for its current domain. If Windows recognizes your login, ASE-Q checks to see if your user account info also exists in the ASE-Q database.

If the new Sybase database has never been opened before (and therefore contains no user accounts), you will see:

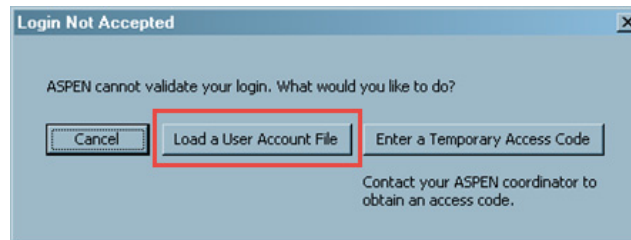


Figure 11: Unvalidated login message

- 3 Select **Load User Account File**. **Cancel** aborts opening the application.
- 4 The Select For Import window opens. Navigate to and select the **ASEUserTx.ZIP** file. If you have changed the name of the user information file, you will need to change Files of type to see All Files (*.*)).
- 5 Click **Open** to initiate the transfer.
- 6 In the Finalize Transfer dialog, click **Apply** to complete the transfer and open ASE-Q.

Note: If none of the personnel records you import have an ASE-Q login equal to the Windows login of the computer you are using, ASE-Q will not open, and you will return to the Login Not Accepted screen.

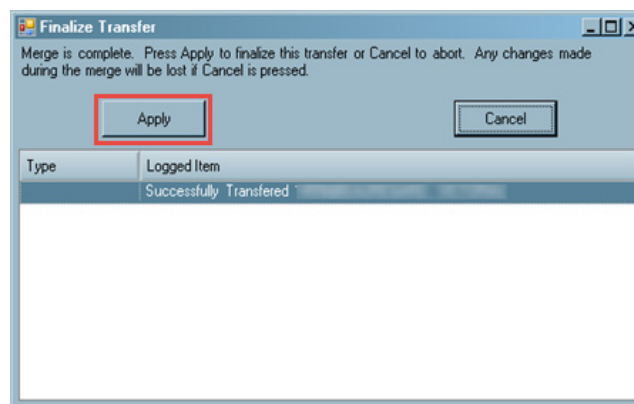


Figure 12: Finalize user record transfer

Enter a Temporary Access Code

In some instances you may need to provide access to a survey for a surveyor who has a Windows login for a machine but does not have an ASE-Q login. For temporary access to the survey, the surveyor must request a temporary access code from the QTSO Help Desk — ASPEN Hotline, 888-477-7876.

To be granted a temporary access code:

- You must request the temporary access code from the QTSO Help Desk — ASPEN Hotline.
- The request must come from a trusted source, e.g., an ASPEN Administrator with a known callback number.
- The request must include the Event ID of the survey.

The temporary access code provides full access to the specified survey event only; no other surveys will be available to the temporary user. The survey must already be contained in the ASE-Q database. The access code is valid until two weeks after the exit date of the survey.

To enter a temporary access code:

- 1 Open ASE-Q. In the Login window, enter a valid Windows **User Name** and **Password**. Click **Log In**. This user name will not be recognized by ASE-Q and the Login Not Accepted window opens.

Select **Enter a Temporary Access Code**.

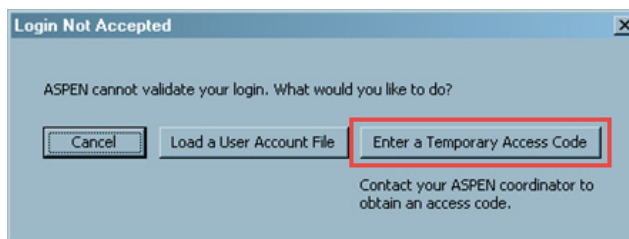


Figure 13: Enter a temporary access code

- 2 Enter the Event ID for the survey for which you need access.

Enter the temporary access code provided by the QTSO Help Desk — ASPEN Hotline. Click **OK**.

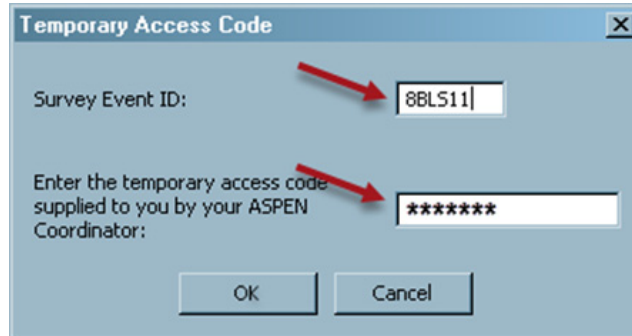


Figure 14: Enter a temporary access code

- 3 In the Welcome to ASPEN window, select **New**.
- 4 In the Enter New Staff Information window, enter the required information.
 - Federal and State IDs, Last Name, and Title Code are required.
 - Federal Surveyor ID cannot be changed after you save the record.
- 5 Click **OK** to save the record.

Requirements for Wired and Wireless ASE-Q to ASE-Q Transfers

To allow ASPEN to transfer data using other methods besides USB, all states and regions must have two ports opened in all software firewalls, including the Microsoft built-in firewall, installed on each computer. The required port numbers that must be permitted are **901** for UDP, and **2638** for TCP. These ports are used for the application to discover ASE-Q databases on the same network, and to transfer data. If they are blocked, ASE-Q will not be able to transfer data over a network.

Another requirement to allow non-USB data transfers is that all computers involved in the transfer must be on the same subnet, or use dynamic IP addresses obtained from a DHCP server. If the computers are using static IP addresses on separate networks, or the computers are a mix of static and dynamic addresses, transfers will not be able to be performed over a network.

These rules apply to direct wired transfer and wireless transfers—but not to transfer files on USB drives.

How to Shut Down/Restart the Sybase Database

Sybase SQL Anywhere is a robust database engine, with increased capability, scalability, and stability. SQL Anywhere also applies algorithms from the Federal Information Processing Standard (FIPS) Publication 140-2, securing both data-sensitive tables and data transfer.

The Sybase database runs as an automatic service wherever ASE-Q is installed. The load is minimal, but you should know that Sybase is “always on”. Some troubleshooting and backup procedures may require closing Sybase temporarily. If you close Sybase, you will need to restart Sybase manually (or reboot the computer) to be able to open ASE-Q.

To temporarily shut down the Sybase SQL Anywhere database:

- 1 Right-click **Start**, then select **Run**.
- 2 In the Run window, type **services.msc**.
- 3 In the right pane of the Services window, right-click **SQL Anywhere** and select **Stop**.

Alternatively, you can right-click the Sybase icon in the notification area of the Windows taskbar (next to the clock), and select **Shut down**.

To restart the Sybase SQL Anywhere database:

➡ Reboot the computer.

-or-

- 1 Right-click **Start**, then select **Run**.
- 2 In the Run window, type **services.msc**.
- 3 In the Services window, right-click **SQL Anywhere** and select **Start**.

Special Considerations for Image-Based Installation

Many states use an imaging process for setup of new machines—a copy of the entire hard drive from a fully configured PC is transferred to the hard drive of a new machine. For ASE-Q, with its Sybase database, a unique ASPEN database instance is needed on each ASE-Q PC. ASE-Q computers with imaged installs may share the same instance name as the source PC.

To support state imaging procedures, a database instance rename utility is available to ensure each client has a unique ASE-Q database name. This utility can be run in manual or silent (automatic) mode. Silent mode supports integration with automated imaging procedures. The rename utility must run from a user or process with privileges that allow changes to Windows services. The Administrator account typically has such privileges.

To obtain this Sybase database rename utility, please contact the QTSO Help Desk — ASPEN Hotline, 888-477-7876.