



Aspen Petroleum Supply Chain

Installation Guide

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1 Introduction and Overview

This document addresses the suite-level installation of the Aspen Petroleum Supply Chain suite of products. Each product-specific, suite-level, or industry-solution installation guide contains critical information about computer requirements, product dependencies, and post-installation configuration procedures.

Note: For information about the installation of an Aspen industry solution that includes the Aspen Petroleum Supply Chain suite of products, see the aspenONE Deployment Guide.

Related Documentation

In addition to this document, other documents and files are provided to help users learn and use the Aspen Petroleum Supply Chain suite of products. The documentation set consists of the following:

Help

Aspen PIMS Help

Aspen Unified Help

Aspen Petroleum Scheduler Help

Aspen Refinery Multi-Blend Optimizer Help

Aspen Petroleum Supply Chain Planner Help

Aspen Report Writer Help

Manuals

Aspen PIMS Integration – User Guide

Aspen Petroleum Scheduler Integration – User Guide

Aspen Multi-Blend Optimizer Integration – User Guide

Technical Support

AspenTech customers with a valid license and software maintenance agreement can register to access the online AspenTech Support Center at:

<http://support.aspentech.com>

This Web support site allows you to:

- Access current product documentation
- Search for tech tips, solutions and frequently asked questions (FAQs)
- Search for and download application examples
- Search for and download service packs and product updates
- Submit and track technical issues
- Send suggestions
- Report product defects
- Review lists of known deficiencies and defects
- Registered users can also subscribe to our Technical Support e-Bulletins. These e-Bulletins are used to alert users to important technical support information such as:
 - Technical advisories
 - Product updates and releases

Customer support is also available by phone, fax, and email. The most up-to-date contact information is available at the AspenTech Support Center at <https://support.aspentech.com>.

Note: To access product specific documentation directly from a Petroleum Supply Chain application, you must register with the AspenTech Support Center and obtain a user ID and password.

2 Overview

This chapter provides an overview of the aspenONE installation process, including the installation requirements and installation process. This chapter contains the following:

- aspenONE Overview
- Aspen Petroleum Supply Chain Overview
- System Requirements

aspenONE Overview

aspenONE® is AspenTech's comprehensive set of software solutions and services. aspenONE products enable process industry companies to optimize their engineering, manufacturing and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, become more energy efficient, and achieve operational excellence goals.

aspenONE solutions include the industry's leading:

- Simulation and design products in the aspenONE Engineering suite
- Plant operations products in the aspenONE Manufacturing suite
- Supply chain management products in the aspenONE Supply Chain suite.
- Predictive and prescriptive analytic products in the aspenONE Asset Performance Management suite

The token-based aspenONE Licensing Model gives customers the flexibility to access and use any aspenONE product at precisely the time it is needed. This is especially critical in the dynamic market conditions of the process industries – whether during down economies or in high-growth periods. This enables customers to lower their risk while maximizing the return on their software investment. aspenONE is the comprehensive set of software solutions and professional services provided by AspenTech; these are designed to help process companies achieve their operational excellence objectives.

Licensing

To manage your product entitlement, you will receive one of the following separately:

- A license file if you are using the SLM Server to manage the products to which you are entitled.
- A pre-configured dongle containing your customer license file if you are operating using a dongle to manage the products to which you are entitled.

Note: An invoice noting which products you are licensed for is also sent separately from the software shipment.

aspenONE Media

Unless you have specifically requested a USB drive, you will receive instructions on how to download the aspenONE V11- media.

You will have access to one or more of the following:

- **aspenONE Token Media** – Contains the media that supports the aspenONE Licensing Model token-based system. This all-inclusive token-based licensing model was introduced in July 2009. Under this licensing model, customers are entitled to install and run all of AspenTech's products as long as they have purchased sufficient tokens. To install software purchased under this commercial agreement, use this media. Software installed from the aspenONE Token media requires run-time token-based license keys.
- **aspenONE Standard Media** – Contains the media that supports perpetual and pre-aspenONE Licensing Model token-based systems. If you have perpetual license agreements or token-based license agreements by product (pre-July 2009), you should use the media labeled Standard. Software installed from the aspenONE Standard media requires older license keys that have been in use since the aspenONE 2004 release.
- **Informatica** – If you have an MSC perpetual license purchased prior to 2011 and are entitled to Informatica upgrades, you will receive both links to the Standard and a standalone Informatica media containing a new version of Informatica PowerCenter.

Note: The Getting Started brochure and the product Release Notes and Installation Guides are included under the Aspen Engineering and Aspen Manufacturing and Supply Chain folders.

Organization

The aspenONE media delivers AspenTech's Process Modeling, Exchanger Design and Rating, Economic Evaluation, Energy and Flare Analysis, Process Development and Operations Support, Plant Operations, Process Control, Supply Chain Management, and Asset Performance products and documentation.

The media organized in the following folders:

- **Aspen Engineering** (32-bit and 64-bit) – includes all Aspen Engineering products, Aspen PIMS and Aspen Administration components (Aspen SLM, Aspen SLM tools, ALC Auto Upload Tool).
- **Aspen Manufacturing and Supply Chain** – includes all Aspen Manufacturing products (Information Management, Batch, Production Management, and Advanced Process Control), Aspen Petroleum Supply Chain products, aspenONE Supply Chain Management products, and aspenONE Infrastructure products as well as Aspen Administration components (Aspen SLM, Aspen Security, Aspen SLM tools, aspenONE Diagnostics, ALC Auto Upload Tool).
- **aspenONE Asset Performance Management** – includes all APM products (Aspen Asset Analytics, Aspen Fidelis Reliability, Aspen Mtell, Aspen ProMV).
- **aspenONE Software License Manager** includes all Aspen Administration components (Aspen SLM, Aspen SLM tools, ALC Auto Upload Tool).

Installation Guides and Release Notes are included in the Documentation sub-folders under each family of products.

Notes:

- When you deploy aspenONE V11 software on client machines, the SLM server should be from the V11 release. When migrating to a new version of aspenONE, the SLM Server should always be upgraded first, followed by the SLM clients. This is done to avoid any potential incompatibility issues. During this transition period, it is possible to have clients at a lower version than the SLM Server.
- Some products previously available on CD-ROM or DVD are not included. If you do not find a product, please contact AspenTech Support at <https://support.aspentech.com>.

aspenONE Licensing Model

The aspenONE Licensing Model is a flexible token-based approach to software licensing. This unique and innovative commercial model makes it easier for customers to use software when and where they need it. Customers have access to all current and future AspenTech products with just one contract.

Upgrading to the aspenONE Licensing Model for Manufacturing and Supply Chain V8.x and above


If you have recently signed a new aspenONE Licensing Model agreement or if you have superseded an old license agreement with an aspenONE Licensing Model token-based license agreement for aspenONE Manufacturing and Supply Chain, you will receive a new token-based license file for V11. During installation of any product in Aspen Manufacturing and Supply Chain, you will get a message indicating that the newly installed software will use the token-based license key. Accepting the warning message enables you to install the software.

Note: If you do not have the updated token-based license file, please contact AspenTech Customer Support.

Accessing aspenONE Documentation

Documentation is available directly from the applications. This eliminates the need to search for the documents that you need and ensures that you can always find the most current version of the document that you are looking for.

Documentation can be found in the following ways:

- Installation Guides and Release Notes can be found by clicking the corresponding link on the Welcome page of the aspenONE Installer.
- Context-sensitive help can be accessed by:
 - Clicking the **Help** button on an application dialog box
 - Pressing F1 while in the application
 - Clicking the application's **Help** menu and selecting **Help**
- Additional documents in PDF format can be accessed by:
 - Clicking **Online Documentation** on the product's **Start** page or **Start** tab or selecting Documentation from the product's Help menu. This will open the Online Documentation Center from which you can view and/or download the product-specific documents.
 - Logging onto the AspenTech Customer Support site, clicking , which makes the left-hand navigation menu appear, clicking **Find the Answer** from that menu, and selecting **Product Documentation**. Your home page displays the **Browse for Documentation** section; you can select a Family, Product, and Version. Click **Go** and a list of the available documentation is displayed.
 - Downloading all of the available documentation (other than Help files) from the AspenTech Customer Support website via the zip file of the aspenONE Documentation.
- For Aspen Plus, HYSYS, EDR, DMC3 builder, Fidelis only, you can access additional documents by:
 - Clicking on the link to aspenONE Exchange on the File menu and then entering a search string in the search box.
 - Clicking on the documentation search shortcut on the Resources ribbon and then entering a search string in the search box or browse through the list of published training documents.

Aspen Petroleum Supply Chain Overview

The Aspen Petroleum Supply Chain Suite of products provide a comprehensive set of solutions that address the unique needs of companies involved in the planning, scheduling, refining, and transporting of crude oils, intermediates, and refined products.

Product	Description
Aspen PIMS	Aspen PIMS (Process Industry Modeling System) is a flexible planning tool used for economic planning in the process industries. PIMS includes PIMS Assay Management.
Aspen Unified	<p>Aspen Unified is a web-based application that incorporates both planning and scheduling.</p> <p>Aspen Unified PIMS (AUP) is a web-based version of PIMS that has an improved interface, interactive flowsheet and the ability to easily create and configure cases to perform what-if scenarios and analysis.</p> <p>Aspen Unified Scheduling (AUS) is a web-based scheduling application that allows you to perform many of the same basic features of Aspen Petroleum Scheduler (APS).</p>
Planning Analysis Tools	<p>These tools, by default, are automatically selected to install when Aspen PIMS or Aspen Petroleum Supply Chain Planner are installed.</p> <ul style="list-style-type: none">• Aspen PIMS Viewer• Aspen Matrix Analyzer• Aspen Matrix Comparison• Aspen SLR Viewer• Aspen Marginal Analysis Viewer
Aspen Refinery Multi-Blend Optimizer, formerly Aspen MBO	Aspen Refinery Multi-Blend Optimizer (Multi-Blend Optimizer) is a multi-blend optimization tool for refinery products.
Aspen Petroleum Scheduler, formerly Aspen Orion	Aspen Petroleum Scheduler is a petroleum refinery and petrochemicals scheduling application that supports the comprehensive scheduling of all plant activities.
Aspen Petroleum Supply Chain Planner, formerly Aspen DPO	Aspen Petroleum Supply Chain Planner is an economic planning tool used to solve multi-commodity, multi-period transshipment optimization problems. PSCP solves problems involved in optimization of distribution networks for any industry having alternate modes of transporting materials to various plants, terminals and/or customers.
Aspen Refinery Report	Aspen Refinery Report and Aspen Report Writer are Add-In features that work with Microsoft Excel® to create templates and custom reports.

System Requirements

For the most up-to-date hardware and software requirements that must be met to install AspenTech products, download the platform specification from the following website:

<https://www.aspentech.com/platform-support/>

Additional System Requirements and Notes

Microsoft Message Queue (MSMQ)

Required if using **adapters** with **PIMS**, **APS** and **MBO**.

MSMQ Active Directory Domain Services Integration (for non-server computers joined to a Domain)

MSMQ HTTP Support

.NET Components

You may need to **Turn Windows features on** from the **Control Panel** to enable the .NET requirements after installation of the components. If not already installed, download .NET 4.7.1 components from the following link:

<https://www.microsoft.com/net/download/dotnet-framework-runtime/net471>

Aspen Unified

For AU, it is advised to enable IIS settings **prior** to installing .NET Framework components to ensure .NET is registered correctly with IIS. Please see the **Note** under the Required IIS section regarding .NET Framework and enabling IIS.

Google Chrome is the recommended browser.

Important!

You **must** turn off browser pop-up blockers when trying to view HTML reports within AU. HTML reports will not appear if popup blockers are enabled.

Aspen PIMS

Note: Only a single instance of PIMS can run on any machine. This includes virtual environments. If you wish to run multiple instances of PIMS in a virtual environment, we suggest you run multiple virtual machines each with a single running instance of PIMS.

Analysis Services is required if using PIMS Analytics and running SQL; SQL Server Express is not sufficient since Analysis Services is required for PIMS analytics to function. If using SQL Express, you will need to install Analytic Services standalone.

Aspen Petroleum Supply Chain Planner

Additional requirements include the following:

Microsoft MapPoint 2006

Optional unless creating map files using MapBuilder to produce .ptm files.

User requirements

Administrative privilege is required to install all AspenTech software. Your administrative privilege must allow you to write to the registry and also to specific folders on the installation machine. Consult with your IT department if you have issues or questions.

SQL Administrative privileges are required to perform any SQL functions including creating SQL databases and assigning proper permissions to SQL database accounts.

Integration Services

If installing **Aspen Petroleum Scheduler Integration Services**, login information is required if using Microsoft SQL Server as your database. The user name you enter is the account login name used to connect to SQL.

NetworkService Accounts

For APS:

If using KPI passing or assay passing from **PIMS** to **APS**, the **NetworkService** account must have specific rights to successfully access databases.

If using SQL as the APS database, **NetworkService** on the machine where APS Integration services have been configured, must have **read-write** access to the database location.

If using Access as the APS database, the folder that contains the Access model must have **NetworkService read-write** access.

For Aspen Unified PIMS:

The **NetworkService** account must have permissions to access the directories containing the system files, model files and database files.

Aspen Unified PIMS Pre-Installation Requirements

SQL Server Express

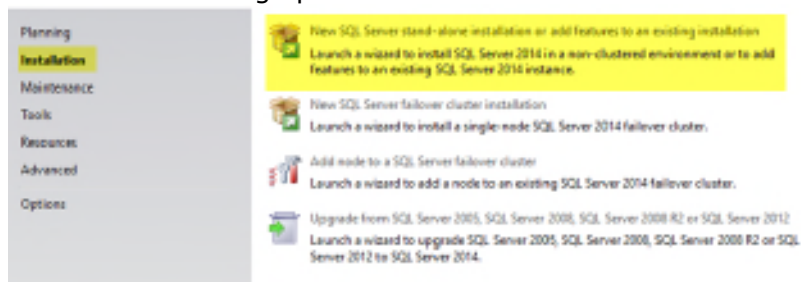
If you already have SQL installed or have access to an SQL server, you can skip this section.

Aspen Unified PIMS requires installation of either Microsoft SQL Server or Microsoft SQL Server Express. If you don't already have access to SQL, you can download SQL Server Express for free from Microsoft.

1. Access the 2014 SP2 version from the following location:
<https://www.microsoft.com/en-us/download/details.aspx?id=53167>
2. Click **Download** and select the version with tools, either 32-bit or 64-bit depending upon your OS

<input type="checkbox"/> SQLEXPRT_x64_ENU.exe	1.1 GB
<input type="checkbox"/> SQLEXPRT_x86_ENU.exe	1.1 GB

3. Once downloaded, run Setup.exe to install.
4. Select the following option:



5. During the installation, choose the following options:
 - a. On the **Setup Role** page select **SQL Server Feature Installation**
 - b. On the **Instance Configuration** page use **Default Instance**
 - c. On the **Server Configuration** page set **SQL Server Browser** to **Automatic**
 - d. On the **Database Engine Configuration** page select **Mixed Mode** and create a password. Click **Add Current User**.
6. For other options, use the default settings.

Required IIS Settings

Note: Starting with V11, the installation detects required settings and you can optionally have the installation install IIS pre-requisites for you. The descriptions below are provided if you wish to manually enable the required IIS settings.

Aspen Unified PIMS is a web application and therefore requires Internet Information Services (IIS) to properly run. The location of IIS settings will differ depending on your operating system.

Please confirm these settings prior to installing Aspen Unified PIMS.

To check IIS settings from a non-server operating system

1. Launch Control Panel.
2. Click **Programs | Programs and Features | Turn Windows Features on or off**.
3. Click **Internet Information Services | Web Management Tools**.

To access IIS settings from a server operating system

Server Manager is used to view and modify IIS settings.

1. Launch Server Manager.
2. On the menu bar click **Manage | Add Roles and Features**.
3. Click **Next** until you are on the **Server Roles** screen.
4. Click **Web Server (IIS) | Management Tools**.

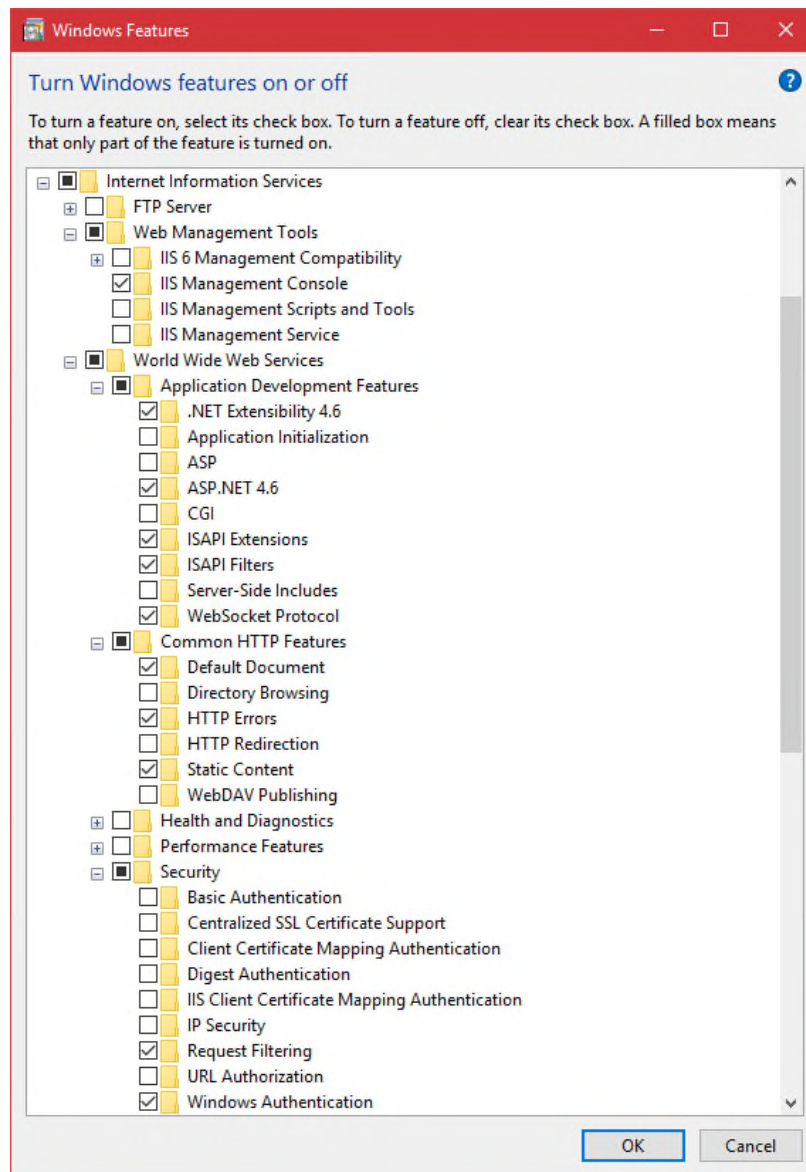
IIS settings to enable

There may be other settings enabled, but the settings below must be enabled at a minimum.

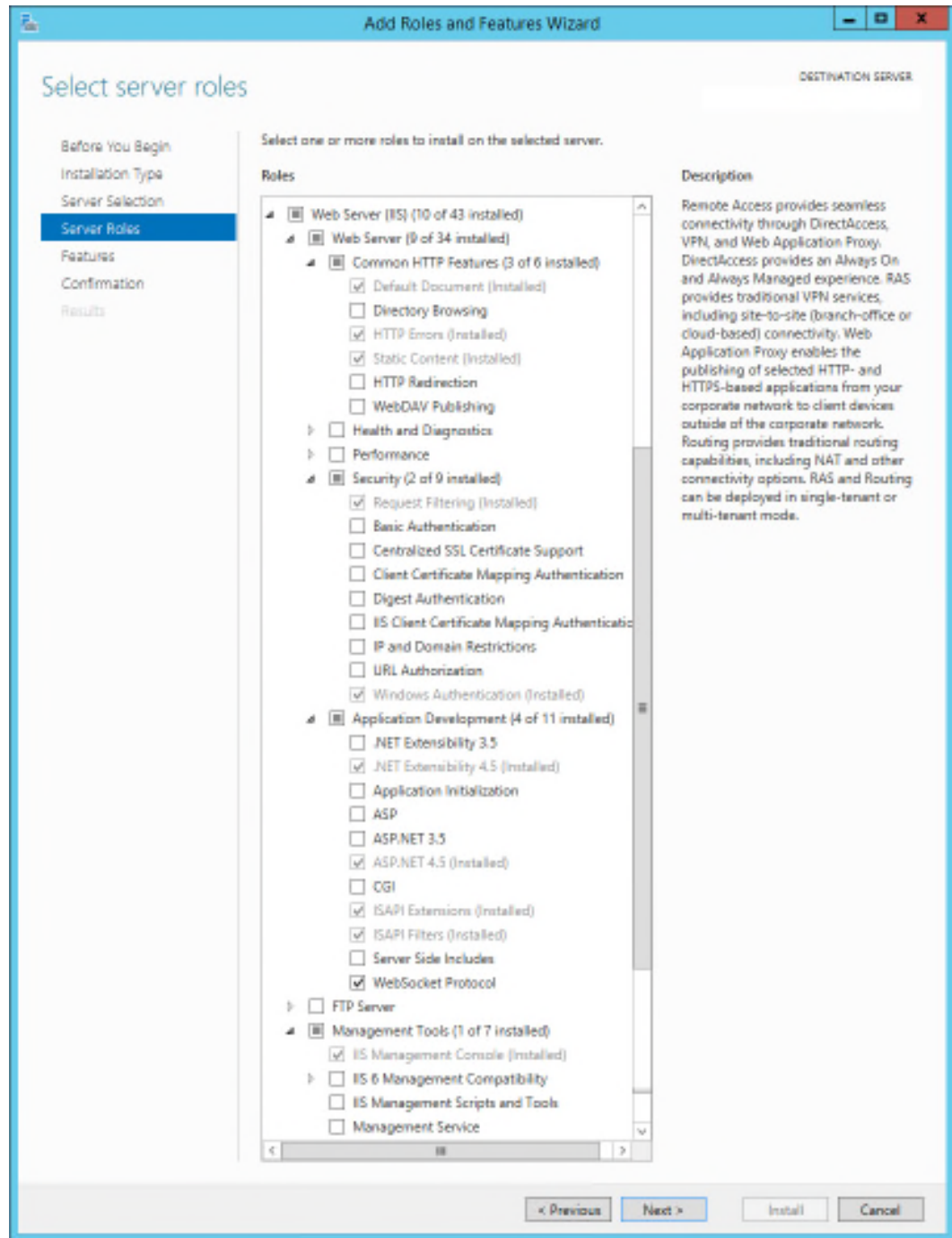
- Web Server (IIS) | Web Server
 - Application Development
 - ✓ **.NET Extensibility x.x**
Note: The **.NET Extensibility** is not visible Windows 7 or Windows Server 2008 R2 and therefore not required for those operating systems.
 - ✓ **ASP.NET x.x**
Note: The **ASP.NET** option is not visible on Windows 7 or Windows Server 2008 R2 and therefore not required for those operating systems.
 - ✓ **ISAPI Extensions**
 - ✓ **ISAPI Filters**
 - ✓ **WebSocket Protocol**
Note: The WebSocket option is not visible on Windows 7 or Windows Server 2008 R2 and therefore not required for those operating systems.
 - Common HTTP Features
 - ✓ **Default Document**
 - ✓ **HTTP Errors**
 - ✓ **Static Content**
 - Security
 - ✓ **Request Filtering**
 - ✓ **Windows Authentication**
- Management Tools
 - ✓ IIS Management Console

Note: If you installed .NET framework 4 before you enabled IIS, you may need to run **Aspnet_regiis.exe**. Doing so correctly registers the .NET Framework with IIS and creates the application pools that use the .NET Framework. If this is not performed correctly, you may see an error when trying to launch AU. See the *Troubleshooting* chapter on page 79 for more information.

Example of desktop installation settings screen:

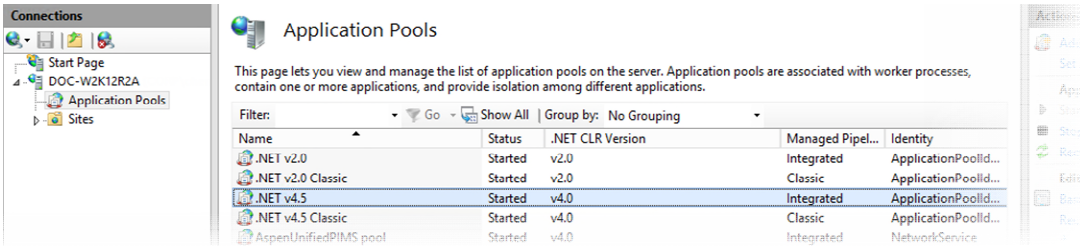


Example of server installation settings screen:



Verify IIS Application Pool Setting

Using **Internet Information Services (IIS) Manager**, verify that the Application Pools setting for **.NET V4.5** is **Started** and that the **.NET CLR Version** is set to **v4.0**.



3 Installing the Aspen Petroleum Supply Chain Suite

Overview

This chapter provides instructions for installing Aspen Petroleum Supply Chain products.

Note: Coexistence is not supported for Aspen Manufacturing and Supply Chain products (including PIMS). Those products do not support coexistence of multiple versions on any platform (including coexistence with Aspen Engineering products of a different version). Also, different patches of the same version cannot coexist.

Before You Install

Before installing, perform the following pre-installation tasks and confirmations:

- Obtain the appropriate license file(s) or obtain the I.P. address or name of the SLM server.
- Ensure that Firewall protection has been disabled. Specifically, if a Firewall blocking message appears, you should allow MPICH2 message passing to occur by permitting Smpd.exe to run.
- Ensure that the system requirements are met:

In addition to the requirements above, check the following:

- Ensure you have local administrative permissions. (See "User Requirements" section in the "Overview" chapter.)
- Install/configure required third-party software as needed (e.g., Microsoft Excel).

If you are installing Aspen Unified, determine your usage configuration:

- If you are running AU as a desktop application, you will need to install AU on each individual machine.

- If you are running AU as a client/server environment, where multiple users are accessing AU from a server, you will only need to install AU on your designated server machine.
- If you wish to perform parallel processing using multiple machines, you will need to install AU on multiple machines. See *Multi-Node Deployment* on page 50 for specific information.

Granular Downloads

V11 includes the ability to download some individual products/product families that can be used independently of a full suite. These sub-components are referred to as **granular downloads**. The granular downloads are used to provide smaller downloads in situations where customers only need a specific product/product family. If more than one granular download is needed, it is recommended that the entire suite is downloaded because it may take less time overall as opposed to downloading two or more sub-components.

V11 Engineering (ENG): In the case of the ENG media, users can download the entire suite or one of the items listed under the ENG group:

- Aspen Economic Evaluation
- Aspen Exchanger Design and Rating with Aspen Properties, Aspen Simulation Workbook and Aspen Version Comparison Assistant
- Aspen Simulation Workbook
- Aspen Cim-IO & Process Data*

*The CIM-IO & Process Data software is from the Manufacturing & Supply Chain suite and is useful for customers deploying a 3rd party historian and is included for convenience. **Note:** The Aspen Cim-IO & Process Data software **is not** a part of the overall Engineering suite download, and only available as a separate download.

V11 Manufacturing & Supply Chain (MSC): In the case of the MSC media, users can download the entire suite or one of the items listed under the MSC group:

- Aspen Supply Chain Management
- Aspen Planning, Scheduling and Blending, Supply & Distribution
- Aspen Manufacturing Execution Systems & Advanced Process Control
- Aspen Cim-IO & Process Data

V11 Asset Performance Management (APM): In the case of the APM media, there is no downloadable suite. Users can download the products listed below the APM group:

- Aspen Asset Analytics

- Aspen Fidelis Reliability
- Aspen ProMV
- Aspen Mtell
- Aspen Cloud Connect
- Aspen Edge Connect

Software License Manager (SLM): In the case of the SLM media, the only granular download is ALDA:

- aspenONE License Deployment Assistant (ALDA)

Installing the Aspen Petroleum Supply Chain Suite for the First Time

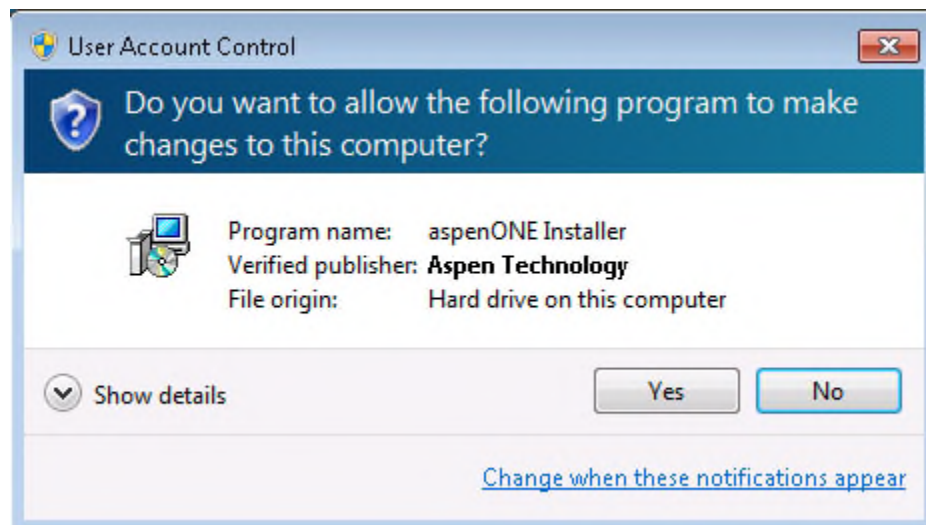
Log on using the account name and password of an account in the **Administrators** group of the target computer.

Note: Before you begin installation, you will want to review the What's New document and Release notes and print copies of the Installation Guides for products that will be installed. Those documents are included under each suite's folder.

Getting Started

1. You can begin your software installation by clicking on the media download or inserting the *aspenONE USB* into the USB drive. The **AutoPlay** dialog box is displayed.
2. Select **Run aspenONE Install Browser**.
3. User Account Control confirmation

Before you see the Welcome page, you may see the following:



You must click **Yes** to continue.

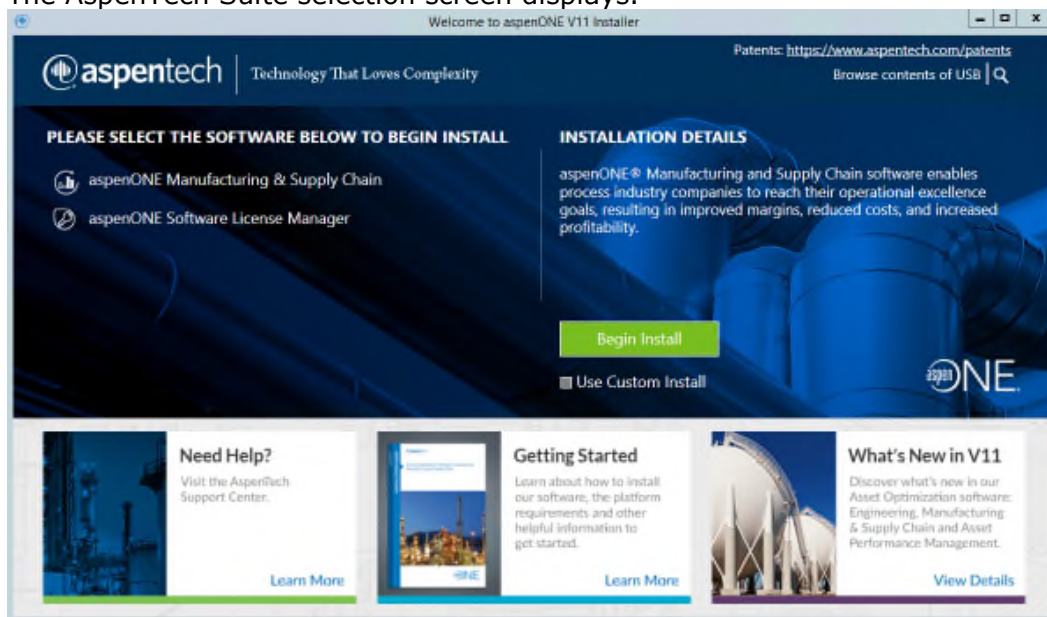
If you do not see this dialog box or something similar, you may have accessed the installation incorrectly and in doing so, appropriate settings may not occur. The consequence is that the applications may not run correctly or errors may appear even though the installation seems to complete successfully. If this dialog box does not appear, cancel the installation and re-launch **setup.exe** to start the installation again.

Carefully read the instructions, make your selections and proceed with the installation.

Note: If patches are available for the product that you are installing, a screen may appear that lets you view the patches before you install. You will also have an opportunity to view the updates after you finish the installation process.

Click **OK**.

4. The AspenTech Suite selection screen displays.



The following links are available:

- o **Patents** – Allows you to download a document with a list of recent patents.
- o **Browse contents of USB** – Allows you to browse the contents of the USB to access Installation guides and Release Notes for the products that you want to install.
- o **Custom Install checkbox** (appears after suite selection)– Most customers can use the standard installation for the V11 media. We recommend using the standard install because that is the configuration where we focus our testing.

If you cannot use the standard install (you have disk space limitations, for example) you can check **Custom Install** on the Start Install screen before beginning the install process. This simply allows a more granular selection of which elements of a suite to install or not install when selecting programs.

Note: To install **Aspen Petroleum Integration Services** without APS or MBO, you **must** install using the **Custom Installation** option. Under **aspenONE Petroleum Supply Chain and Distribution Family | Aspen Petroleum Scheduler & Aspen Refinery Multi-blend Optimizer**, select the **Aspen Petroleum Integration Services** option.

- o **Need Help?** – Connects to the AspenTech Support Web site, where you can find knowledge base articles, tips, and solutions to known problems.

- o **Getting Started** – Links to brochure containing information about prerequisites, installing and upgrading the software, documentation and translated versions.
 - o **What's new in V11** – Links to a description of new features included in V11.
5. Click on aspenONE Manufacturing & Supply Chain.
Select **Begin Install**.

Installation Welcome Page

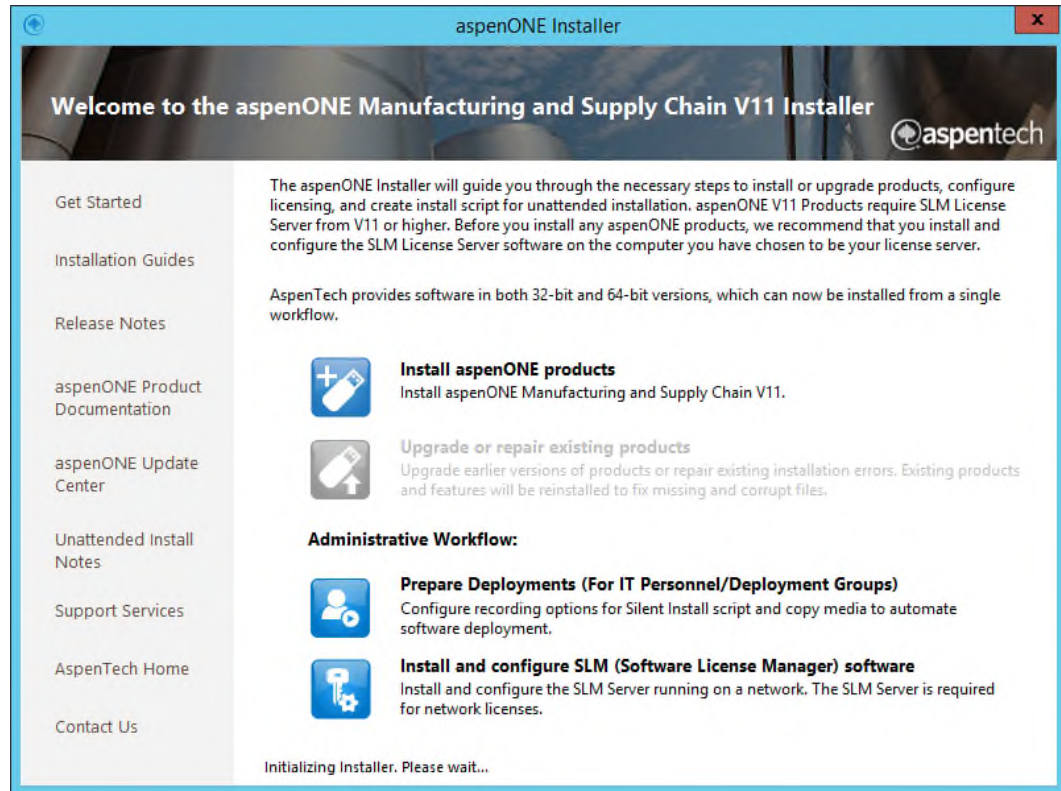
The **AspenTech Installation Welcome Page** provides options to install or upgrade aspenONE products, configure licensing, and create install scripts for unattended installations.

The following links are available on the left side of the aspenONE Installer Welcome Page:

- **Get Started.** Opens the AspenTech Deployment Solutions Web site.
- **Installation Guides.** Opens a folder that contains all the Installation Guides for the products.
- **Release Notes.** Opens a folder that contains all the Release Notes for the products.
- **aspenONE Product Documentation.** Opens the AspenTech Support Web site.
- **aspenONE Update Center.** Connects to the Aspen Support Update Center so that you can check to see if there are patches available for the product(s) that you are installing. You must be a registered user on the Support Web site to access the Update Center.
- **Unattended Install Notes.** Provides instruction on creating an unattended installation.
- **Support Services.** Connects to the AspenTech Support Web site, where you can find knowledge base articles, tips, and solutions to known problems.
- **AspenTech Home.** Connects to the AspenTech Web site.
- **Contact Us.** Connects to the AspenTech Support Web site, where you can obtain the latest e-mail and telephone contact information and find the AspenTech Support location closest to you. You can see hours of operation for global support and submit your support issues.

The following options are available on the aspenONE Installer Welcome Page:

- **Install aspenONE products.** Launches the installation process during which you will select new products to be installed on this computer.
- **Upgrade or repair existing products.** Upgrade earlier versions of products or repair existing installation errors.
- **Prepare Deployments.** Create install scripts and copy media to automate software deployment.
- **Install and configure SLM** (Software License manager) software. Install and configure the SLM server running on a network.



Notes:

- Aspen Petroleum Supply Chain applications are developed as 32-bit applications. Though 32-bit applications, they can run on a 64-bit machine. The installation automatically detects your operating system and displays allowable applications to install.
- Be sure that the SLM license server or standalone license is available prior to installation. SLM tools are automatically install when installing aspenONE products.

License Terms and Conditions

Read the aspenONE Software License Terms

aspentech

Welcome

▸ **Software terms**

Prerequisites

Product selection

Licensing & security

Product configuration

Summary

Progress

To continue, you must accept the terms of this agreement. If you do not accept the aspenONE Software License Terms, cancel the installation.

BY SELECTING THE "I **ACCEPT**" BUTTON AFTER REVIEWING THE STATEMENTS BELOW, YOU WARRANT AND REPRESENT THAT THESE STATEMENTS ARE TRUE AND CORRECT AND CONFIRM YOUR AGREEMENT WITH THESE STATEMENTS.

1. You are either (a) an employee of an Aspen Technology, Inc. ("AspenTech") customer that is duly-licensed to use this software ("Licensee") in accordance with a written, fully-executed license agreement between Licensee and AspenTech ("Agreement"); (b) a contractor or consultant authorized by Licensee to access the software in accordance with the Agreement; or (c) an employee or authorized contractor or consultant of an affiliate of Licensee that is authorized to access the software in accordance with the Agreement. You acknowledge and agree that you may use the software solely as explicitly authorized by AspenTech in the Agreement.

2. You acknowledge and agree that title to, ownership of, and all rights in patents, copyrights, trade secrets and other intellectual property rights in the software shall remain in AspenTech and/or AspenTech's third party vendors and licensors.

3. You will not make any modifications or enhancements to the software, create any derivative works of the software, or merge or separate the software or any component thereof.

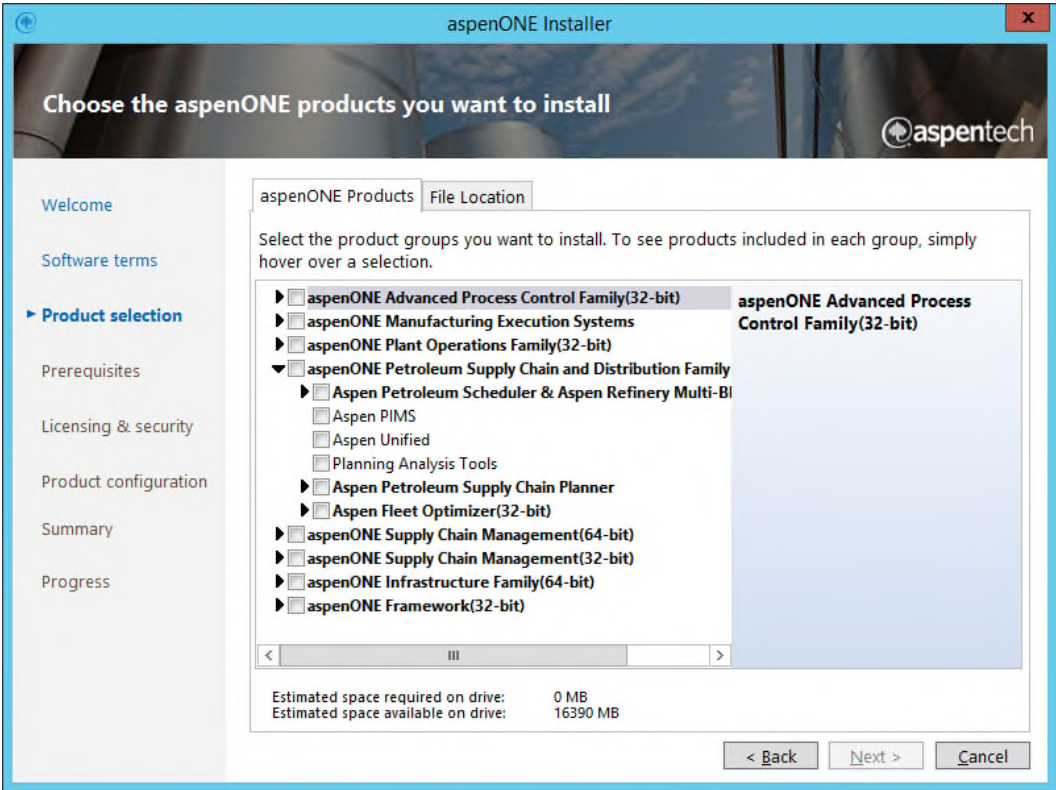
☒ I accept the terms of this agreement

< Back Next > Cancel

Select **I accept the terms of the agreement** to continue.

Choose the aspenONE products you want to install and the location

Below is a representation of the products screen.



Installation Notes

Options

aspenONE Petroleum Supply Chain and Distribution Family

Aspen Petroleum Scheduler and Aspen Refinery Multi-Blend Optimizer

Description

Select this checkbox to install all the family products.

Integration options EIF and mMDM Adapters, are automatically selected when selecting these products. Without these components, integration between products cannot occur. Installation of these products also automatically installs:

- Aspen Report Writer
- Excel Integration Utilities (EIU)
- Reporting Wizard

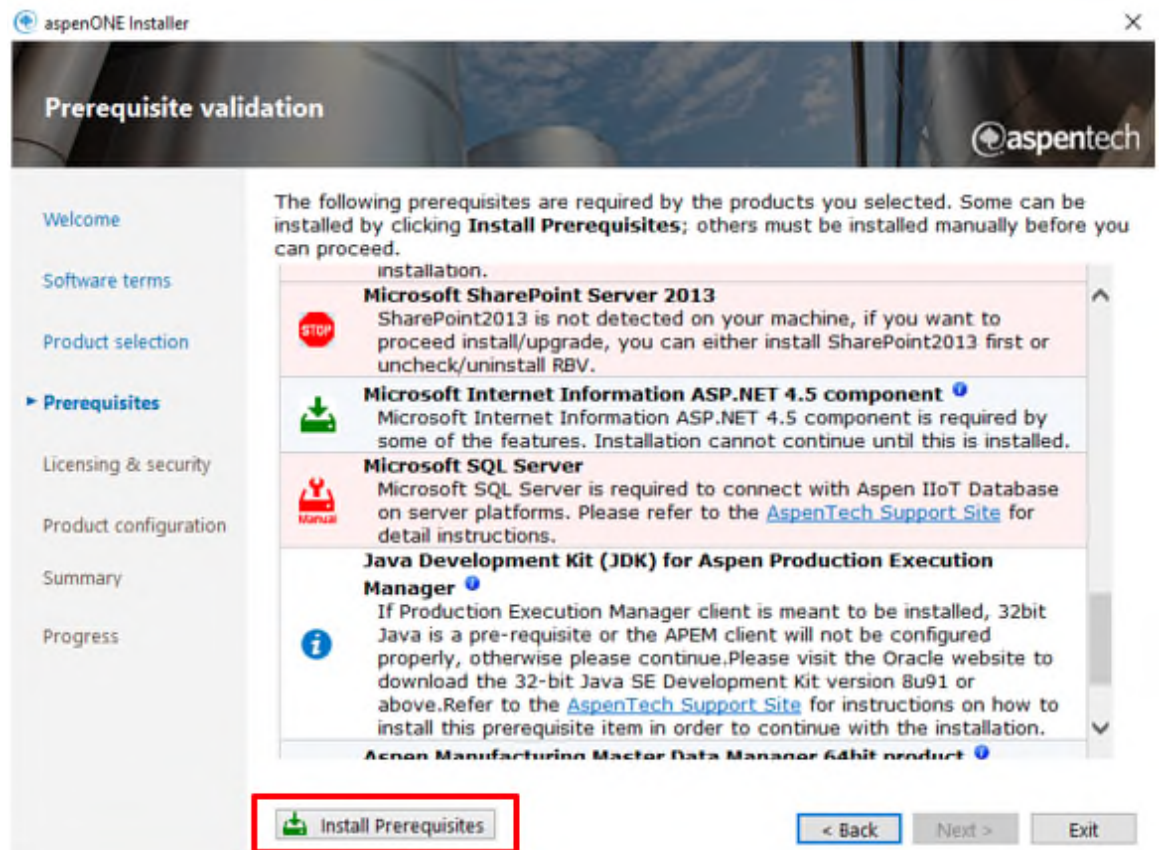
If you do not wish to install the above, you can use the **Custom Installation** option control installed products and utilities.

<u>Options</u>	<u>Description</u>
Aspen PIMS	<p>Installs on a local machine. You do not need any specific privileges to install these options.</p> <p>Installing PIMS automatically selects the Planning Analysis Tools to install.</p>
Aspen Unified	<p>The AU Administrator role is automatically granted to anyone with local machine administrator rights.</p> <p>Aspen Unified is a server application but can be installed for standalone use. AU allows you to assign roles and responsibilities for each model. A website is created where users can access a common server interface when working with AU. AU data can be housed on multiple SQL servers. Result databases are accessible to all.</p> <p>You will need administrator rights to install IIS prior to proceeding with the installation.</p>
Planning Analysis Tools	<p>Planning Analysis tools are automatically selected to install when Aspen PIMS or Aspen Petroleum Supply Chain Planner are selected.</p>
Aspen Petroleum Supply Chain Planner	<p>Integration options EIF and mMDM Adapters, are automatically selected when selecting these products. Without these components, integration between products cannot occur.</p>
Aspen Fleet Optimizer	<p>Select the specific products associated with AFO that you wish to install.</p>

Additional Notes:





- Once the installation of any AspenTech product to the default folder has been completed, this folder cannot be changed. Any further AspenTech installations on the computer are made to that folder by default.
- Common features are always installed in the Program files\Common Files\AspenTech Shared folder regardless of the destination location selected.

Prerequisite Validation



This screen will only appear if prerequisites are missing.

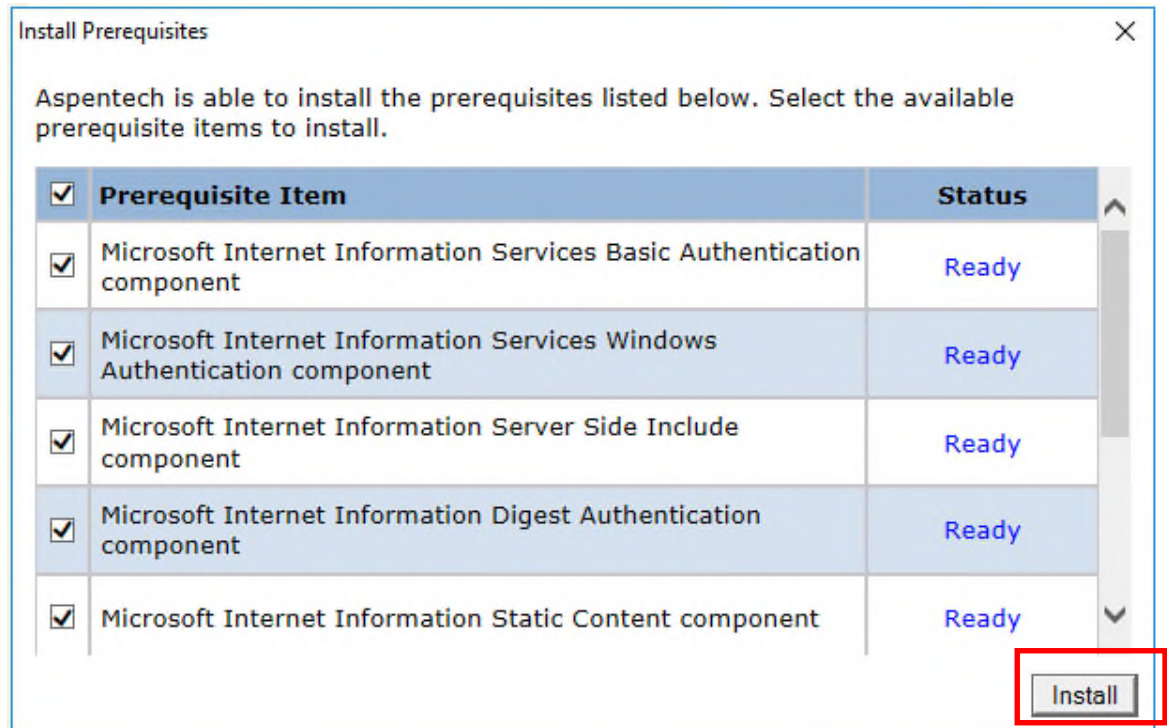
In V11 the capability to install and/or configure some of the product pre-requisites during the Aspen software installation process – mostly Microsoft Internet Information Services (IIS) was added. If the prerequisites window appears, you will see the “**Install Prerequisites**” option at the bottom of the screen. Here is a description of the icons related to installing pre-requisites. (These must be installed before the AspenTech installation can proceed). You may also encounter other icons that are informational only.

-  This item can be installed automatically by selecting “**Install Prerequisites**”
-  or  This item cannot be installed automatically by selecting “**Install Prerequisites**”. Select the link in the item’s description to open an AspenTech support site link that describes how to install this item.
-  This item is informational

To install the prerequisites:

1. Click **Install Prerequisites** if you want to install or configure the relevant prerequisites.

- When the **Install Prerequisites** option is selected, the Install Prerequisites screen appears. This will identify which prerequisites can be installed and/or configured.



- All options will be checked by default - unselect any that you do not want installed automatically and then click **Install**.

When **Install** is selected, PowerShell windows will appear that perform the install and/or configuration for the specified prerequisites. When the install and/or configuration steps are done, you will see the **Install Prerequisites** window again.

- Click "X" to close the window and return to the installation process.

Specify licensing & security

aspensONE Installer

Specify licensing & security

Please provide the licensing and Security server information below.

Licensing

AspenTech controls the use of aspenONE Products through the Software License Manager (SLM). This step allows you to set up the SLM information on this machine. SLM allows two types of licensing: Network and Standalone. Network licensing obtains the aspenONE Product licenses across a network connection from a network-license-server computer. Standalone licensing obtains licenses from the same computer on which the aspenONE Products are installed. For more information, please see the SLM Installation and Reference guide.

For network configurations, please provide a list of license servers for AspenTech products. Install will keep the server names and bucket numbers already configured on this machine. Additional buckets can be added through the SLM Configuration Wizard.

License server:

☒ Resolve server name

For a standalone license file that is local on this computer, browse to the location.

License file:

Security

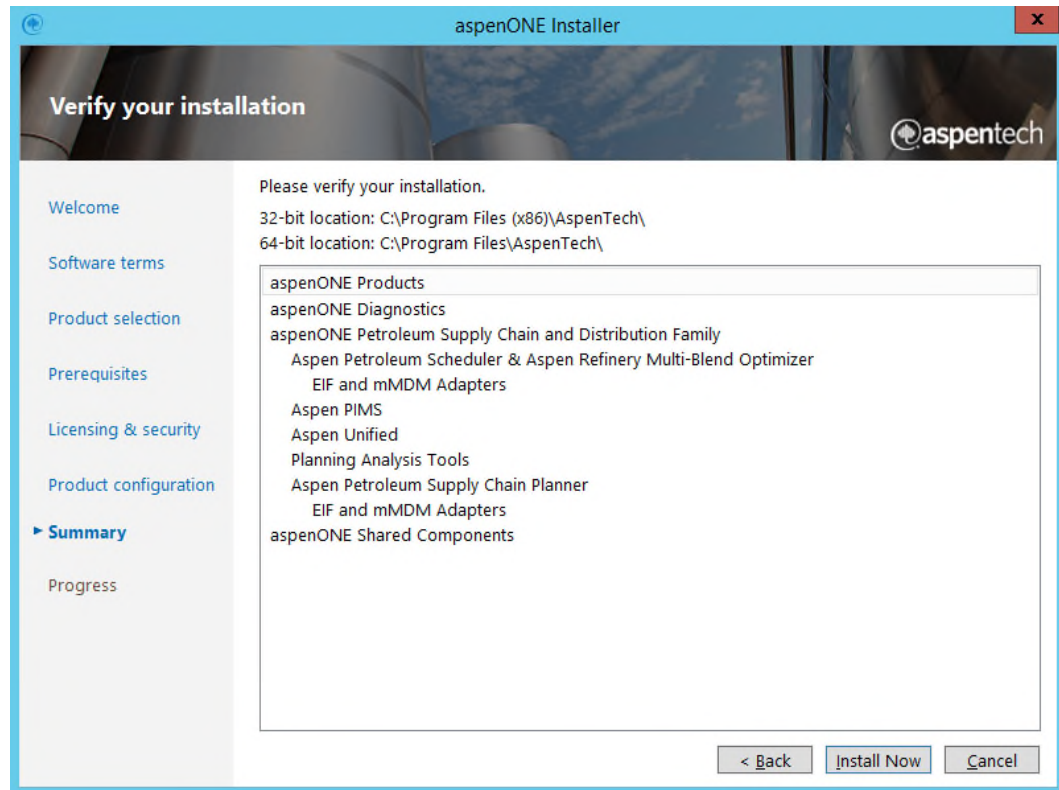
aspensONE products can use either Framework Security Server or Local Security Server for role-based security. Please provide the server name.

Security server name:

< Back Next > Cancel

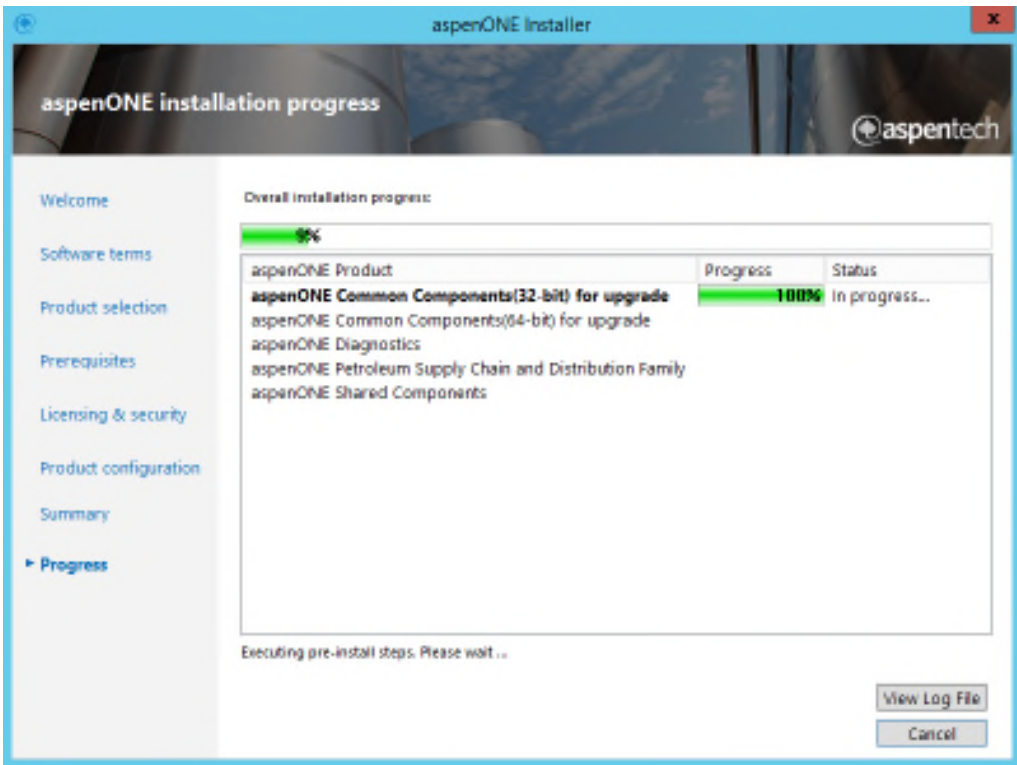
An option is available to specify buckets. If you use buckets, you can specify them during the install or later using the SLM Configuration Wizard. Also, when **Resolve server name** is checked, the fully qualified server name is used in the registry. If you use aliases, you can uncheck this setting.

Verify your installation

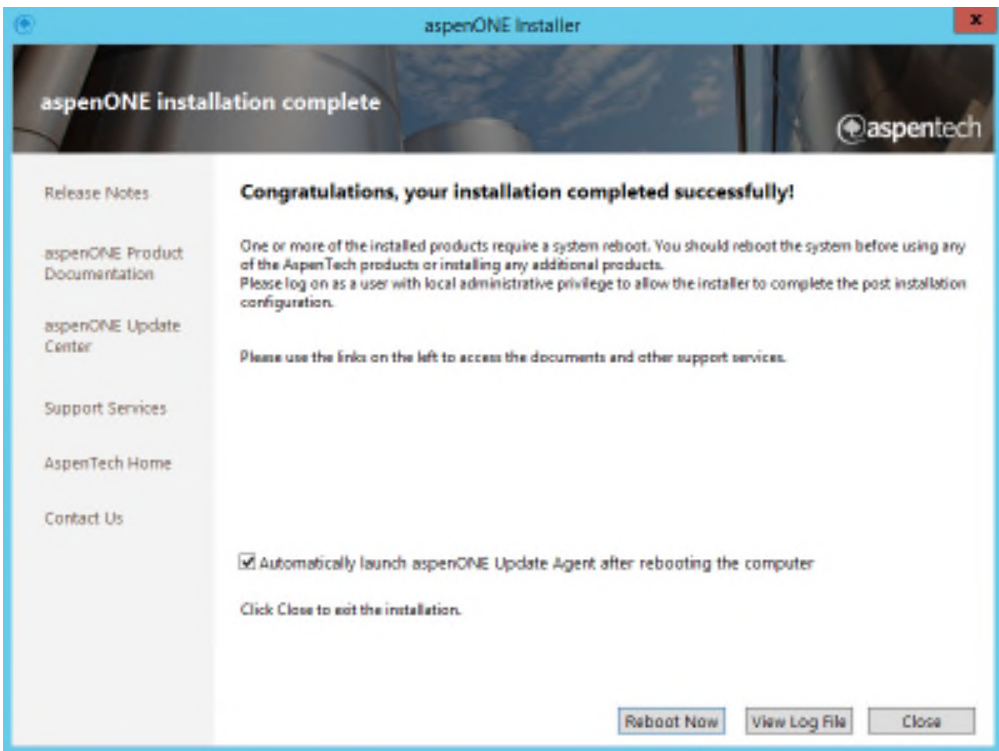


Note: If you encounter a Windows Firewall Security Alert after clicking **Install Now**, allow access to enable use of message queuing needed by the selected application to install.

aspenONE installation progress



aspenONE installation complete



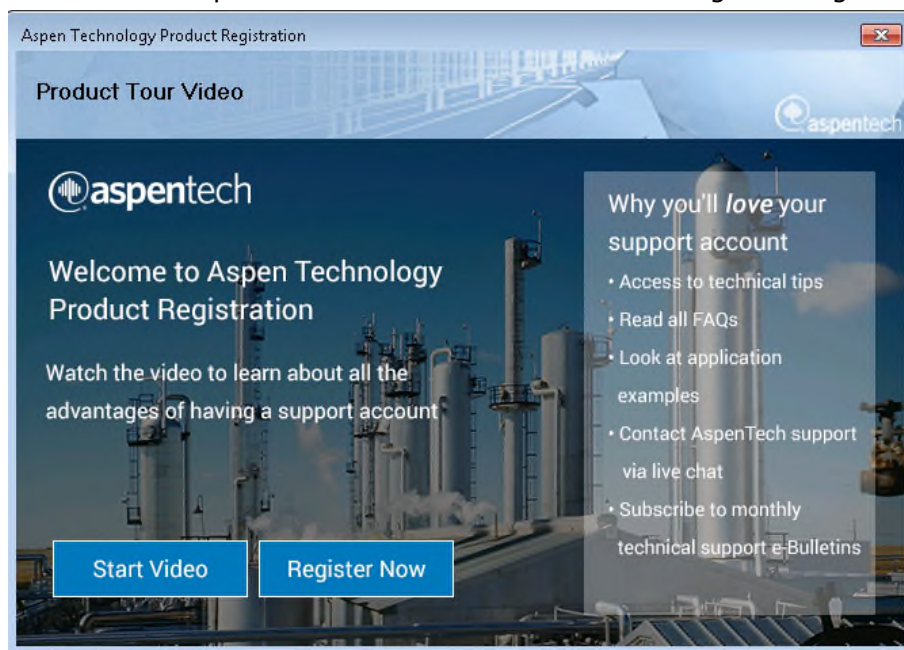
Aspen Unified Post Installation Note

Note: You will **NOT** be able to launch AU until the appropriate SQL databases have been created. Creation of databases is covered in the *Aspen Unified Post Installation* chapter on page 43.

Other Petroleum Supply Chain Verify Installation

To verify the installation of any Petroleum Supply Chain products besides Aspen Unified PIMS:

1. Click **Start | All Programs | AspenTech** and navigate to the installed product name.
2. Launch the product. You should see the following after login:



3. Click **Register Now** to complete the registration process.
4. After completing registration, you should see a product dialog box that contains the release version number. After logging in, you can also look in the title bar for the release version number to verify the correct version has been installed.

4 Aspen PIMS Post Installation

Overview

This chapter describes post installation instructions for Aspen PIMS, specifically how to use SQL as an output database.

Aspen PIMS – Using SQL as an Output Database

PIMS model execution has a unique identifier, Solution ID, associated with each run. When an execution run occurs, the solution data is written to an output database. All report data is obtained from the output database that is specified from the **Output Database** tab of the **General Model Settings** dialog box.

Note: PIMS does not support exporting information from multiple models into a single SQL database. Doing so may cause erroneous or unexpected results.

The following information is applicable if you plan to store PIMS model data results in a Microsoft SQL Server database.

Create the SQL Server Instance

Note: Aspen Technology recommends that a qualified Database Administrator (DBA) create and configure the SQL Server database for use with any Aspen products.

For best results, and in order to avoid disk contention, at a minimum, please install the following on different physical drives:

- Operating System
- Database
- Logs

For additional information or clarification on SQL Server installation recommendations, please consult Microsoft for the latest best practices. Also please note that during SQL role setup, to enable the **Grant Connect** option for **TSQL Default TCP** found under **SQL Security | Server Roles | Public | Permissions**.

After installing SQL Server, perform the following related to your server:

1. Enable Allow Remote Connections.
2. Enable TCP/IP.
3. Check the default SQL Server port; 1433 should be automatically added to the Windows Firewall exceptions list. This is a troubleshooting tip.
4. Check with your IT department for specific details related to your organization.

Create the SQL Server Database

If you are a SQL database administrator, you may already have a procedure to create a new SQL database. If a database creation procedure is not available, we have provided a script to help create a blank database, the description of which is found below.

Once the initial SQL database is created, go to the **Create the database objects using the provided schema** section to create the appropriate tables.

Create the database using the provided SQL script

Complete the following procedures on the computer where SQL Server is installed to create the target PIMS results database.

1. On the machine where PIMS is installed, go to:
C:\Program Files\AspenTech\Aspen PIMS\Enterprise Configuration\Database.
2. Using SQL Server Management Studio or a text editor, open the **PimsDbCreationScript.sql** script. This script is used to create the database.
3. Replace all instances of **%databaseName%** with the name of the database that is being created, e.g. ResultsPIMS.
4. Replace all instances of **%databasepath%** with the path of where the database will be created, e.g., "C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\DATA." Please also notice that the path does not contain a final backslash.
5. Replace all instances of **%logfilepath%** with the path of where the log file will be created, e.g., "C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\DATA." Please also notice that the path does not contain the final backslash.
6. Replace all instances of **%initialdatabasesize%** with the initial size for the database, e.g., "2048KB."

7. Replace all instances of **%initiallogfilesize%** with the initial size for the log file, e.g., "1024KB."
8. In summary, these are the items that should have been replaced in the script, **%databaseName%**, **%databasepath%** (without the final backslash), **%logfilepath%** (without the final backslash), **%initialdatabasesize%**, **%initiallogfilesize%**.
9. Save the file.
10. Execute the script.

Create the database objects using the provided schema (i.e. script)

The referenced script creates the necessary database objects or tables.

If you know how to apply an SQL script to an existing blank database, use the **PimsTableCreationScript.sql** script to do so, after commenting out the **%databaseName%** at the top.

If you do not know how to automatically apply a script, follow the steps below:

1. In the same directory as the database creation script, for example, C:\Program Files\AspenTech\Aspen PIMS\Enterprise Configuration\Database, use SQL Server Management Studio or a text editor to open **PimsTableCreationScript.sql**.
2. Replace all instances of **%databaseName%** with the name of the database that is being created, e.g., **ResultsPIMS**.
3. Save the file.
4. Execute the script.

The database scripts should run without error. If there are any errors, make sure you have sufficient privileges to execute the scripts and create objects.

Create Database User Accounts

Create database login accounts and users and assign them to their appropriate database roles based on your local IT security policy.

For the associated **SQL Security | Login** you will need to enable the **sysadmin Server role** option.

The minimum database **User Mapping | Database role membership** options for PIMS users is **db_datawriter** and **db_datareader** for each database login.

To be able to truncate a database, the **db_ddladmin** role is also required.

Test SQL Server Setup and User Access from PIMS

Use the following procedure to test SQL Server login credentials and to test the connection to your results database.

1. Test the login by logging onto SQL Server with SQL Server authentication mode using SQL Server Management Studio from the same machine on which SQL Server is installed.
2. Test the connection has been set up correctly by launching PIMS.
3. Go to the **General Model Settings** dialog box.
4. Click the **Output Database** tab.
5. Select **SQL Server** from the **Database Type** list dropdown.
6. Click the "..." associated with the **Connection String** field to open the **Data Link Properties** dialog box.
7. Complete the SQL Server data connection information using the SQL database name you created.
8. Click **Test Connection** to verify connection to the database is successful.

Database Management Tool

Starting with V11, the **Database Management Tool** is available to assist in creating and managing SQL databases from *within* PIMS. After SQL has been set up for the first time, this tool eliminates the need to run the **PimsDbCreationScript.sql** script to create new PIMS results databases. It also eliminates the need to modify and run the **PimsTableCreationScript.sql** used to apply the correct database schema.

Daily PIMS users can use this tool to access, create, delete, clear and view database details, including PIMS case and solution information, directly from PIMS.

From PIMS, launch the tool by doing the following:

- Select **Tools | Data Management Tool**. The **PIMS Database Management Tool** dialog appears.

See the PIMS online help topic **Database Management Tool** for specific information and instructions.

5 Aspen Unified Post Installation

Overview

This chapter describes post installation instructions for Aspen Unified (AU). It describes the following that only needs to be performed once:

- [Using Microsoft SQL 2017 or TLS](#)
- [Configuring SQL for AU](#)
- [Installing AU to utilize multi-node deployment](#)
- [Adding UBML Correlations](#)
- [Migrating Existing PIMS Models](#)
- [Deploying AU Excel Add-in](#)

Using Microsoft SQL 2017 or TLS

If you are using SQL 2017 or running Transport Layer Security (TLS) with elevated security, you will need to manually download the MSOLEDBSql.dll from the following location:

<https://www.microsoft.com/en-us/download/details.aspx?id=56730>

On the download page, choose either 32 or 64 bit. You will need to register the .dll prior to use.

Without this dll, you will not be able to run cases and other errors may occur.

Please consult with your IT department or AspenTech Support if you have questions.

Configuring SQL

Note: If you are setting up your system to use multi-node processing, be sure to read that section prior to performing the steps to configure SQL.

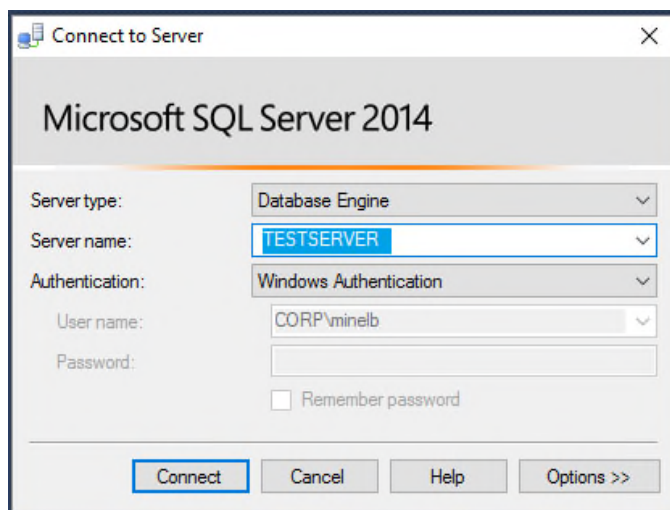
Prior to launching Aspen Unified, you must create the appropriate databases that are used to store AU data. This section details the steps below associated with creating the required AU SQL databases and only need to be executed once.

1. Obtain the SQL Server Name
2. Create SQL databases
3. Setup SQL Server Logins

Obtain SQL Server Name

You will need the SQL Server Name that was created when SQL was installed. If you open SQL, the name you need is displayed in the **Server name** field. By default, it is the machine name.

Note: Databases can reside on different SQL Servers if needed/desired. In that situation, you would need the Server Name for each.



Create the SQL Databases

Creating the required databases requires using a command prompt utility called **PSCAdmin.exe**. You will be creating three SQL databases. You **must** create these databases in the following order:

1. Master
2. Input
3. Results


Optionally, you will need to create a site catalog database if you wish to use this feature in AU.

4. Site catalog

You can name these databases as desired. For this example, we will call them AUMaster, AUInput, AUMResults and AUSiteCatalog.

If you have installed AU to a different location than the default, you will need to replace the start of the command with the correct path.

1. Open a Command line prompt.

 **Command Prompt**


2. Navigate to the location of the PSCAdmin utility by entering or copying and pasting the following into your Command Prompt window:

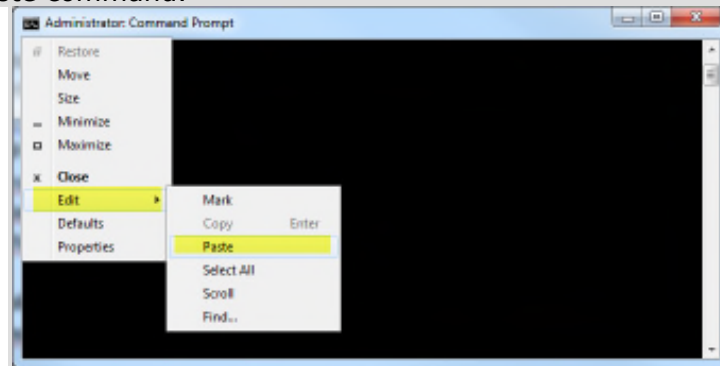
cd C:\Program Files (x86)\AspenTech\Aspen Unified\Admin\bin

3. Press **Enter**.

Hint: To save typing time, use a text editor and type the necessary strings. Copy and then paste the command into the Command Prompt Window, modifying the string as needed.

To paste a copied string into the Command Prompt window:

- a. Copy the desired string. Be sure NOT to include a carriage return.
- b. Go to the Command window and click  **Edit | Paste** to access the paste command.



4. Create the master database by modifying the command below to include your Server Name and master database name. Enter the modified command or copy and paste the command into your Command Prompt window and press **Enter**:

```
PscAdmin.exe create-master-db --databaseServer <ServerName> --  
databaseName <NewMasterDBName>
```

Example-

Using ServerName **testserver** and database name **AUMaster**:

```
PscAdmin.exe create-master-db --databaseServer testserver --  
databaseName AUMaster
```

After entering the command, press **Enter**. After the database is created, you will see a message in the Command Window that says "**Database registered**"

5. Create the input database using the following command:

```
PscAdmin.exe create-input-db --databaseServer <ServerName> --  
databaseName <NewInputDBName>
```

Example:

```
PscAdmin.exe create-input-db --databaseServer testserver --  
databaseName AUInput
```

After entering the command, press **Enter**. After the database is created, you will see a message that says "**Database registered**"

6. Create the results database using the following command:

```
PscAdmin.exe create-results-db --databaseServer <ServerName> -  
-databaseName <NewResultsDBName>
```

Example:

```
PscAdmin.exe create-results-db --databaseServer testserver --  
databaseName AUResults
```

After entering the command, press **Enter**. After the database is created, you will see a message that says "**Database registered**"

7. Optionally create a site catalog database using the following command. A site catalog allows assets to be shared between planning and scheduling models.

```
pscadmin.exe create-catalog-db -- databaseServer <ServerName> --  
databaseName <NewResultsDBName>
```

Example:

```
PscAdmin.exe create-catalog-db --databaseServer testserver --databaseName  
AUSiteCatalog
```

After entering the command, press **Enter**. After the database is created, you will see the following message: "**Database registered**"

8. If you are using the Historian feature in AUS, you will need to run an additional command. The Historian retrieves data from an external server to use as actual plant data.

Note: Registration of data servers should not be performed when an AU model is open. Please be sure to close all models prior to performing this procedure.

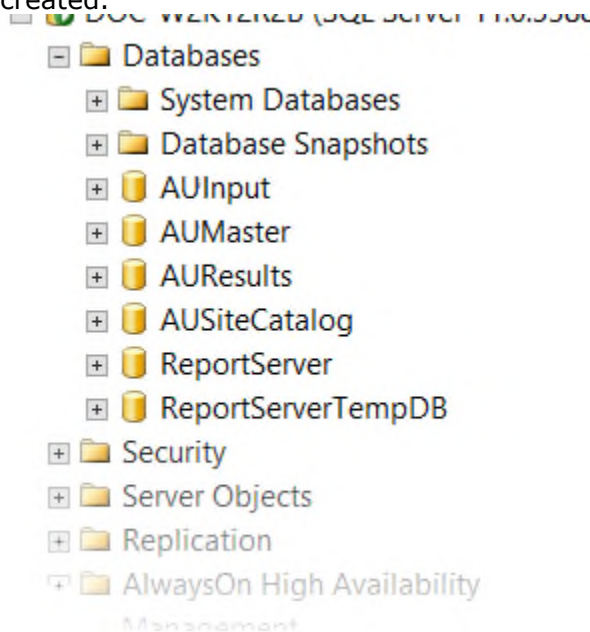
The following command is necessary to register the process data server to establish communications.

```
pscadmin.exe register-process-data-server --serverName  
<ProcessServerName> --serverUrl <ProcessServerURL>
```

After entering the command, press **Enter**. After the data server is registered, you will see a message indicating success.

For information on the proper server URL, refer to instructions regarding accessing data associated with your data server.

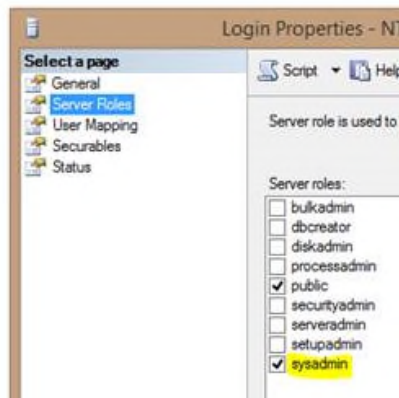
9. Open SQL Server Management Studio and verify the databases were created.



Setup SQL Logins

You will need to create three SQL login accounts and then assign the correct server roles.

1. Using Object Explorer in SQL Server Management Studio, click **Security | Logins**.
2. Right click on **Logins** and click **New Login**. You will be creating two login accounts:
NT AUTHORITY\NETWORK SERVICE
NT AUTHORITY\AUTHENTICATED USERS
3. Enter one of the account names from step 2 as the **Login Name**.
4. Click **Server Roles** and add **sysadmin** (keep public) as a server role.





5. Click OK to add the new login.
Repeat steps 2-5 the other Login Account you need to create.

This completes the steps to create your required SQL databases. Exit SQL and proceed to verify that databases have been created successfully.

Verify Creation of AU Databases and Creation of AU Website

After creating your SQL databases, you will be able to launch AU.

1. Go to the location that displays Programs or Applications and click on the Aspen Unified icon . The Quick Reference guide appears if this is the first time you have created the website.
 - a. Alternatively enter the following URL in a browser:
`http://localhost/AspenTech/AspenUnified/UnifiedHome.html`
 - b. If you have installed as a server environment, replace **localhost** with the computer name and this will be the URL need for others to access AU as clients.
2. Launch Aspen Unified.
3. If this is the first time to launch AU, you will see a **Quick Reference** guide. We recommend you study this guide carefully for information about navigating the AU applications.
4. Click  to close the guide.

The Aspen Unified **Home Screen** appears. This is the screen where models display and is the launch point to working with models.



If you do not see this screen or see an error, refer to the *Troubleshooting* chapter for possible solutions or contact Technical Support for assistance.

Hint: You may wish to create a shortcut to AU on your desktop for easy access or add the URL as a browser favorite.

Assign User Roles

By default, the person installing AU is automatically assigned the **Site Administrator** role that allows full editing and creation rights associated with all models. This includes the ability to migrate existing PIMS modules. If more than one user will be accessing AU or if the person installing AU is different from the primary user, each user must be granted **Administrator** rights to allow full access to AU features.

To grant administrator rights to the site

1. From the AU **Home Screen**, click the **Roles** icon .
2. On the **Site** tab and click  and select **Administrator**. The **Select Domain User/Group** dialog appears.
3. Set the options to search for a user or group.
4. Select the desired domains.

5. Click **Search** to begin looking for matches. A table appears with possible matches.
6. Click to select the desired person/group.
7. Click **Add Administrator**. Your selection appears on the **Site** tab.
8. Repeat steps 2-7 for each user.

Proceed to creating new models or migrating existing models found on page 56.

Multi-Node Deployment

Multi-node deployment allows the system to more quickly find solutions involving large models with many cases by performing parallel processing using multiple machines or nodes.

Note: Multi-node deployment requires communication between multiple machines and therefore may involve modifying firewall settings. We recommend consulting with your IT department regarding setup and policies on security settings.

Before performing specific configuration for a multi-node environment, you will need to do the following.

Preliminary Setup

- Install AU on each machine you wish to use. One of the machines needs to be designated as the **supervisor** machine. It is on this machine that you will migrate your models to your SQL Server database. Other machines are termed **members**.

Supervisor Machine Setup

The following sections are performed on your **supervisor** designated machine

1. Follow the normal steps to [configure your SQL databases](#) on your supervisor machine. This includes creating three SQL AU specific databases and two SQL logins.
2. Create three specific folders that will be used for multi-node deployment. We recommend creating a parent folder to more easily set permissions for all the child folders as well as to organize data.

C:\<parentfoldername>**DistributedFilesFolder**

C:\<parentfoldername>**AssayLibraryFolder**

C:\<parentfoldername>**ReportsFolder**

Setup Sharing and Permissions

Set sharing permissions for the folders you just created so they can be accessed by member machines. If you have not organized the required folders for multi-node deployment under a parent folder, you will need to set sharing and permissions for each folder.

1. Right click the <parentfoldername> and select **Properties**. The **Properties** dialog box appears.
2. Click the **Sharing** tab and then the **Advanced Sharing** button. The **Advanced Sharing** dialog box appears.
3. Select the **Share this folder** option.

4. Click **Permissions** and **Add** the following four user names if not already present in the **Permissions** dialog box:
 - NETWORK SERVICE
 - AUTHENTICATED USERS
 - Everyone
 - SYSTEM
5. For **each** user you added, click the checkbox to **Allow - Full Control**.
6. Click **OK** until you are back to the original **Properties** dialog box.
7. After adding users and setting permissions, set the **Security** options for the users.
 - a. On the **Properties** dialog box, click the **Security** tab.
 - b. Click **Advanced**. The **Advanced Security Settings** dialog appears.
 - c. On the **Permissions** tab, click **Add** to add the following user:
 - AUTHENTICATED USERS
Depending on the OS, you may need to click **Select a principal** to add a user.
 - d. After clicking **OK**, the **Permission Entry** dialog appears.
 - e. Set the **Permissions** to **Allow - Full control** then click **OK** to return to the Advanced Security Settings dialog box.
 - f. For the entry you just added, click the **Include inheritable permissions from this object's parent** option.
 - g. Repeat steps **7a-f** for the following entries.
 - SYSTEM
 - NETWORK SERVICE
 - Administrators
 - Users
8. Save all changes and close the **Properties** dialog box.

Register Folders

Using the **PscAdmin.exe** utility, register each of the folders you previously created so they can be accessed by your SQL databases. You will need to know the **IP address** to your **Supervisor** machine and the location of the folders you previously created.

1. Using a **Command prompt** with **Admin** privileges, go to the directory where the PscAdmin.exe application resides. You can use the following command to navigate to the correct folder.

```
Cd C:\Program Files (x86)\AspenTech\Aspen Unified\Admin\bin
```

2. Execute the following commands to register the folders you created. For each, provide the IP address for your supervisor machine and path to the specific folder you created.

```
PscAdmin config --setting DistributedFilesFolder --value  
"\\<supervisorMachineIPAddress>\<parentfoldername>\DistributedFilesFolder"
```

For example, if the supervisor machine IP address was 12.34.56.789 and the name of the parent folder was AIData, you would enter the following:

```
PscAdmin config --setting DistributedFilesFolder --value  
"\\12.34.56.789\AIData\DistributedFilesFolder"
```

3. Repeat step 2 for the other two folders, **AssayLibraryFolder** and **ReportsFolder** with the correct IP address and folder name.

For example:

```
PscAdmin config --setting AssayLibraryFolder --value  
"\\12.34.56.789\AIData\AssayLibraryFolder"
```

```
PscAdmin config --setting ReportsFolder --value  
"\\12.34.56.789\AIData\ReportsFolder"
```

Designate Host Machine

The next step designates the machine you designated as the supervisor machine as the host machine. You will need to know the following:

- o Supervisor machine name OR IP address of supervisor machine
- o Port number - You can specify **any** port number that is not currently being used. You can access **Control Panel | System and Security | Windows Firewall | Advanced Settings | Inbound Rules** to view ports that are currently used. We recommend checking with your IT department before modifying any settings.

Using the PscAdmin.exe utility, type the following command:

```
PscAdmin config --setting PrimarySupervisorHost --value  
<supervisorComputerNameOrIPAddress>:<portnumber>
```

For example:

```
PscAdmin config --setting PrimarySupervisorHost --value  
12.34.56.789:9750
```

Register Member Machines to the Master Database

This section provides information on how to connect member machines to the SQL AU master database. The steps below must be performed on **each** member machine.

Prior to performing the following steps, you will need the following:

- o IP address of the machine where SQL resides
 - o Name of your **SQL AU master database** that you [created earlier](#).
1. On your member machine, using a **Command prompt** with **Admin** privileges, go to the directory where the **PscAdmin.exe** application resides. You can use the following command to navigate to the correct folder.

```
Cd C:\Program Files (x86)\AspenTech\Aspen Unified\Admin\bin
```

2. Execute the following command line command to register a member machine to the AU master database, providing the correct IP address to your SQL server as well as the name of your AU master database.

```
PscAdmin register-master-db --databaseServer  
<IPAddressOfSQLServer> --databaseName <AUMasterDatabaseName>
```

For example:

```
PscAdmin register-master-db --databaseServer 12.34.89.765 --  
databaseName AUDBMaster
```

Check Configuration Files

On **all** member machines, check to be sure the master database settings are correct in the **AspenUnified.config** file. To do this, you need the following:

- o IP address of the machine where SQL resides
 - o Name of your **SQL AU master database** that you [created earlier](#)
1. On your member machine, go to C:\ProgramData\AspenTech\UnifiedPIMS and locate the **AspenUnified.config** file.
 2. Open the file using a text editor and enter the IP address of the SQL server and name of the master AU database. See the highlighted values below:

```
<?xml version="1.0" encoding="utf-8"?>  
<configuration>  
  <appSettings>  
    <add key="MasterDatabaseServer" value="IPAddressOfSQLServer" />  
    <add key="MasterDatabaseName" value="NameOfAUMasterDB" />  
  </appSettings>  
</configuration>
```

Configure Firewall settings:

Note: We recommend you consult with your IT department before modifying any firewall settings. Also, please note that the rule names in the commands below may be localized on systems with primary language set as non-English.

The following commands must be executed from a command prompt with elevated security on your **supervisor** machine.

Unified communication

Create the appropriate firewall inbound rule to allow for open communications to the Supervisor machine. Using a **Command prompt** with **Admin** privileges, execute the following command.

```
netsh advfirewall firewall add rule name="Aspen Unified PIMS"  
dir=in action=allow protocol=TCP  
program="%ProgramFiles(x86)%\AspenTech\Aspen  
Unified\ApplicationGrid\bin\AspenTech.Psc.Agents.SupervisorServic  
e.exe" localport=<portnumber>
```

The <portnumber> **must** match the port number you entered when [designating a machine as the Master machine](#).

Enable File and Printer Sharing to communicate through the computer's firewall

The following two commands create the appropriate firewall inbound rules for file and printer sharing. Using a **Command prompt** with **Admin** privileges, execute the following commands.

```
netsh advfirewall firewall set rule group="File and Printer  
Sharing (NB-Session-In)" dir=in new enable=Yes
```

```
netsh advfirewall firewall set rule group="File and Printer  
Sharing (SMB-In)" dir=in new enable=Yes
```

Enable WWW Services

Using a **Command prompt** with **Admin** privileges, execute the following command.

```
netsh advfirewall firewall set rule group="World Wide Web Services (HTTP  
Traffic-In)" dir=in new enable=Yes
```

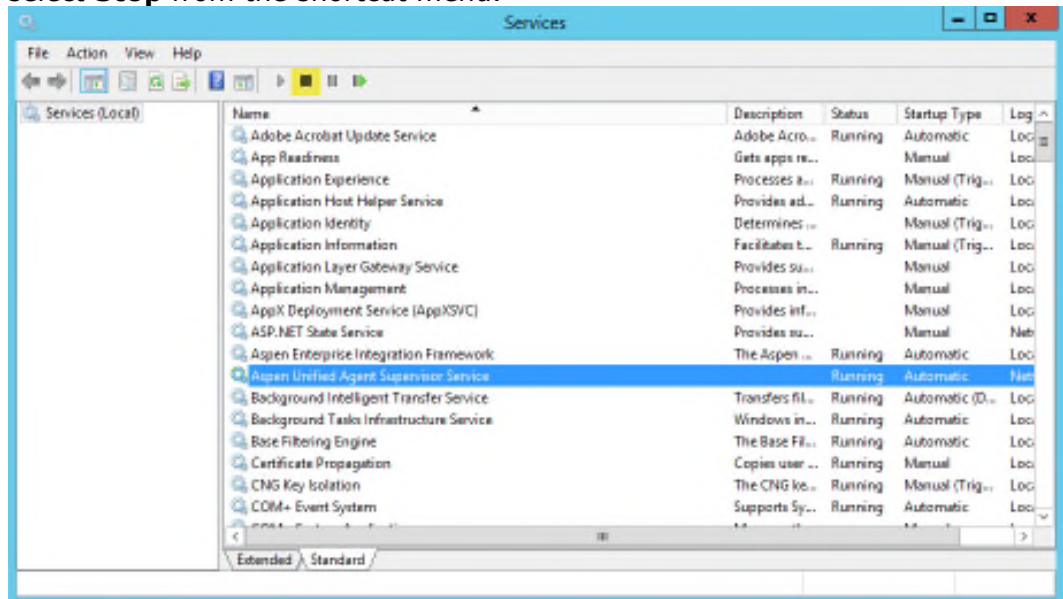
Start and Restart Services

After executing the firewall commands, you must do the following on the supervisor and all member machines.

Start and restart the Aspen Unified Agent Supervisor Service

1. Launch the Services application by opening a **Run** window and typing **services.msc**. The **Services** application displays.
2. Click to select the service called **Aspen Unified Agent Supervisor Service**.

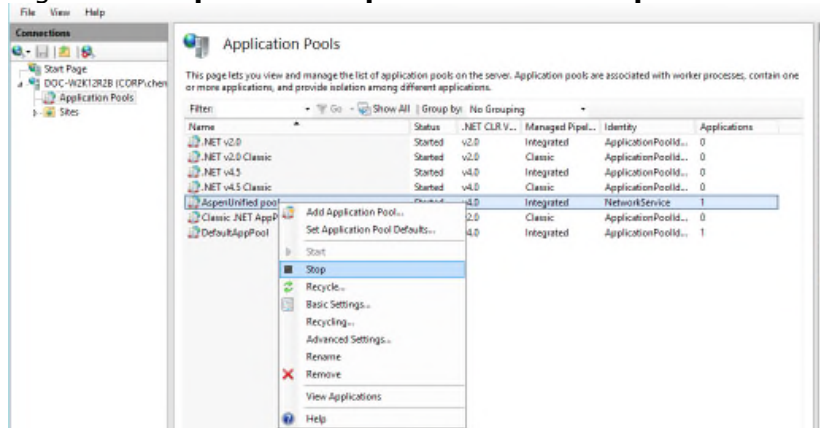
- Click the **Stop Service** button at the top of the screen or right-click and select **Stop** from the shortcut menu.



- After the service stops, click **Start the service**.
- Close the **Services** application.

Start and restart IIS Application Pool

- Launch **Internet Information Services (IIS) Manager**.
- Click the **Application Pools** node to view application pools.
- Right-click **AspenUnified pool** and select **Stop**.




- Right-click **AspenUnified pool** again and select **Start**.
- Close the IIS Manager.


Migrating Existing PIMS Models

After SQL databases are created, you can launch AU and begin creating models or migrating existing Aspen PIMS models as desired. Below are quick steps to start the migration process. See *AU Online Help* for detailed instructions.

NOTE: You must have the AU **administrator** or **creator** role assigned to migrate models. This role is automatically assigned to the person installing AU. If you did not install AU, be sure to refer to the *Assign User Roles* section on page 48 for additional information.

To migrate an existing Aspen PIMS model:

1. Launch AU.
2. You should now see what is termed as the **Home Screen**.
3. On the application bar at the top of the screen, click . The migration wizard appears.
4. Follow the steps to migrate your model.

Details regarding how tables are handled during migration can be found in the [Appendix](#). For additional help while in the application, click  and select **Show Help**.

Adding UBML Correlations

This section describes the necessary steps to enable inclusion of UBML (User Blend Model Library) correlations in Aspen Unified. It is assuming you have already created your custom UBML files and that you wish to integrate them into AU.

1. Copy the PUBML.dll file and any dependencies of the PUBML.dll to these locations:

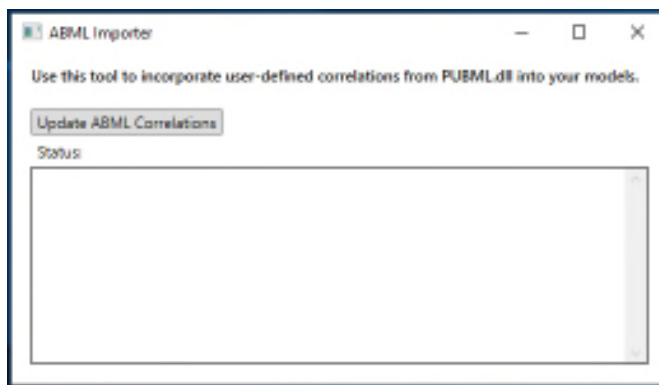
`<InstallDir>\Aspen Unified\Admin\bin`
`<InstallDir>\Aspen Unified\Agents\CaseRunnerAgent\bin`

e.g.

`C:\Program Files (x86)\AspenTech\Aspen Unified\Admin\bin`
`C:\Program Files (x86)\AspenTech\Aspen Unified\Agents\CaseRunnerAgent\bin`

Note: The file must be named PUBML.dll.

2. In `<InstallDir>\Aspen Unified\Admin\bin` start the program `AspenTech.Psc.ABMLImporter.exe`.



3. Click **Update ABML Correlations**. The process completed successfully if the **Status** pane lists the imported correlations and no errors.
The UBML correlations within your model should now be available.
Configure the imported correlations through the UI, and solve as usual.

Deploying the Aspen Unified Excel Add-in

Introduction

Aspen Unified provides the capability for users to use the same Excel file to send data to AUP as an option to downloading and uploading several Excel files to transfer data. This feature uses a custom Excel Add-in specifically designed for use with Aspen Unified.

The Aspen Unified Excel add-in uses the latest integration capabilities of Office 365 that makes it possible to use the add-in both with the Excel 2016 desktop version as well as the Office 365 Excel web version.

Note: This add-in can only be used with Excel 2016. Earlier versions of Excel are not supported.

This feature uses a custom manifest that specifies the location for the add-in and required permissions. This file needs to be registered with Microsoft Office. There are two options available to deploy this manifest and the choice will depend on your needs and constraints:

- **Register the manifest with your Office 365 tenancy**
If you wish to use the add-in with the web version of Excel you will need to enlist the help of your IS department. A pre-requisite is to enable https on the IIS service that is hosting the Aspen Unified application. You will also need an administrator of your Office 365 tenancy to register the manifest.
- **Register the manifest on a local trusted shared folder location**
If involving IS or accessing the web server version of Excel is prohibitive, the manifest can be deployed locally by creating a shared folder, placing the manifest into that folder, and then registering the folder in Excel using the **Trusted Addins Catalog** option.

Creating the add-in manifest and performing the steps to support both deployments are described below.

Creating the Excel Add-in Manifest

The manifest is needed for both types of deployment. The manifest file for the add-in can be created and then saved to a location by navigating to a special URL that can be accessed once Aspen Unified has been installed.

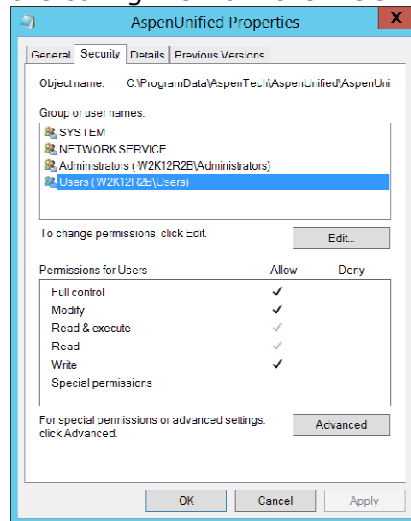
Pre-requisites

1. If you are deploying the Office 365 tenancy option, the IIS service used by Aspen Unified must first be configured to enable **https** connections on the machine hosting the Aspen Unified application. You will also need an

administrator of your Office 365 tenancy to register the manifest. Please consult with your IS department for assistance on these requirements.

2. You will need access to the **AspenUnified.config** file. This file is automatically created when AU databases are registered. The information in the config file is needed to create the manifest. The file properties must be set to allow **Full control** access for all **Users** on the local machine.

Without **Permissions for Users** set to **Full control**, you will see an error when initiating the URL step below. You can view and set permissions for the config file from the file's **Properties | Security** tab.



The **AspenUnified.config** file is found in the following location:

<AU installation directory>\ProgramData\AspenTech\AspenUnified

Note: The **ProgramData** folder is often hidden and you may need to unhide this folder to find the config file.

3. You will need the **full computer name** of the machine where AU is installed.

Generating the manifest file

You will be creating the file AddinManifest.xml by:

- navigating to a URL containing the required information
- copying manifest content and saving this information to a local file

1. Navigate to the URL

Using your browser, enter the following URL.

For Office 365 tenancy deployment enter:

https://<full computer name>/AspenTech/AspenUnified/ExcelAddin/AddinManifest.xml

For a local deployment enter:

<full computer name>/AspenTech/AspenUnified/ExcelAddin/AddinManifest.xml

EXAMPLES:

In the following examples, assume you have installed Aspen Unified on a machine called **aspenunified.abccorp.com**. The full URL address would appear as follows.

Example URL for Office 365 tenancy deployment:

`https://aspenunified.abccorp.com/AspenTech/AspenUnified/ExcelAddin/AddinManifest.xml`

Example URL for a local deployment:

`aspenunified.abccorp.com/AspenTech/AspenUnified/ExcelAddin/AddinManifest.xml`

**** Important **** Make sure that you use the URL with the fully qualified name of the computer, do not use **localhost**. The computer name you include in the URL will be embedded in the manifest that is generated.

The contents of the manifest displays in your browser when the URL is accessed.

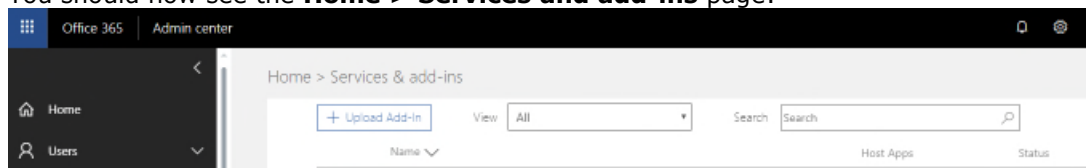
2. Copy contents and save the file

Save the contents visible in the browser window to a file named **AddinManifest.xml** or something similar with the .xml extension. If using Google Chrome you can right click and select "Save As..." to save the manifest to a local file. This file can now be used in both deployment options.

Proceed to the applicable section below as determined by your desired deployment option.

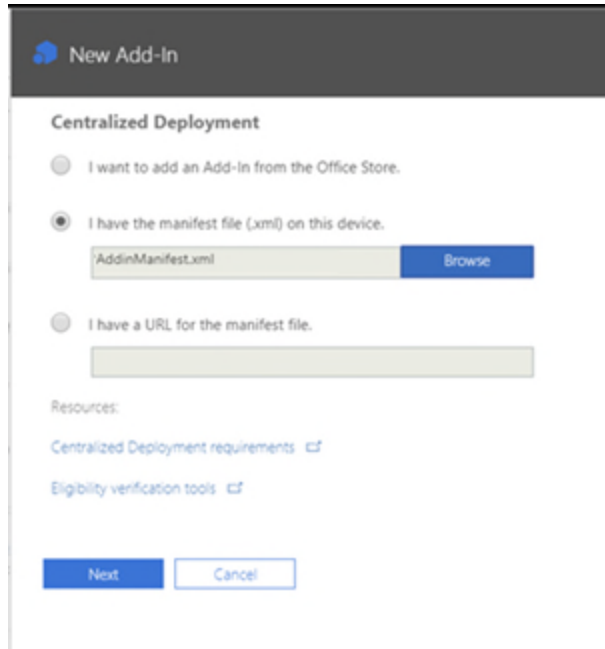
Deploying the Add-in Manifest using Office 365

1. Navigate to the Office 365 admin portal: <https://portal.office.com/adminportal>
2. On the left hand side select **Settings | Services & add-ins**.
3. You should now see the **Home > Services and add-ins** page:



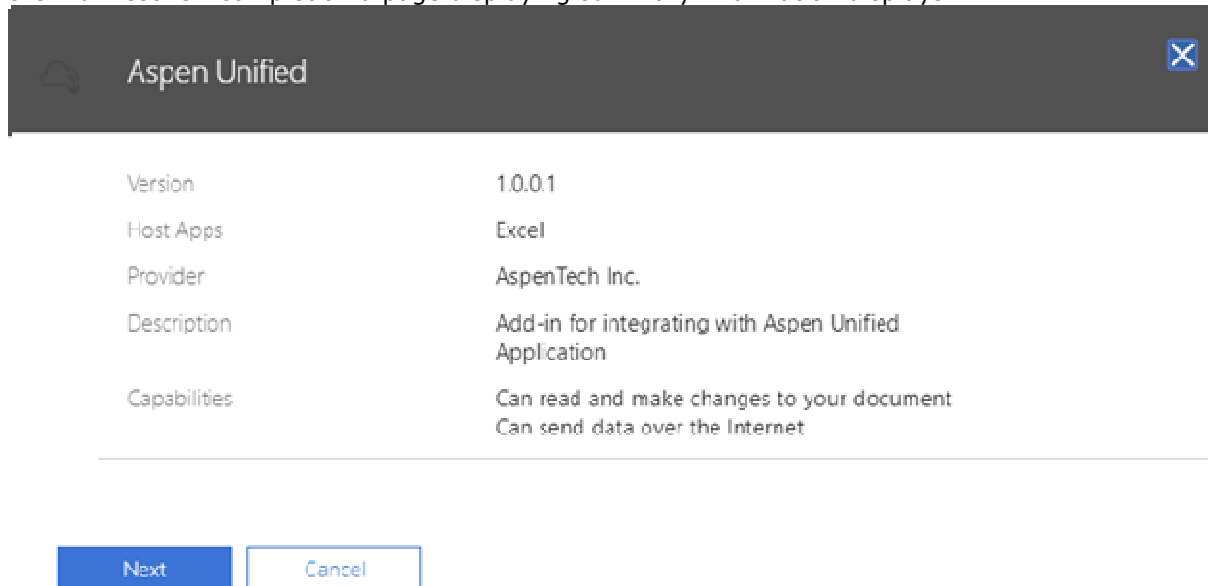
4. Click on **Upload Add-in**. The **New Add-in** wizard will display on the right.
5. Click **Next** to proceed to the next step.
6. Select the option **I have the manifest file (.xml) on this device**.

7. Browse to the location of the manifest file and select it.



The 'New Add-In' dialog box is shown. It has a title bar with a blue icon and the text 'New Add-In'. Below the title bar, the section 'Centralized Deployment' is visible. It contains three radio button options: 'I want to add an Add-In from the Office Store.' (unselected), 'I have the manifest file (.xml) on this device.' (selected), and 'I have a URL for the manifest file.' (unselected). Under the selected option, there is a text box containing 'AddinManifest.xml' and a blue 'Browse' button. Below the radio buttons, there is a text box for a URL. At the bottom, there are two buttons: 'Next' (blue) and 'Cancel' (white with blue border). Below the radio buttons, there are links for 'Resources:', 'Centralized Deployment requirements', and 'Eligibility verification tools'.

8. Click **Next** to proceed to the next step. Wait for Office 365 to finishing processing the manifest. On completion a page displaying summary information displays:



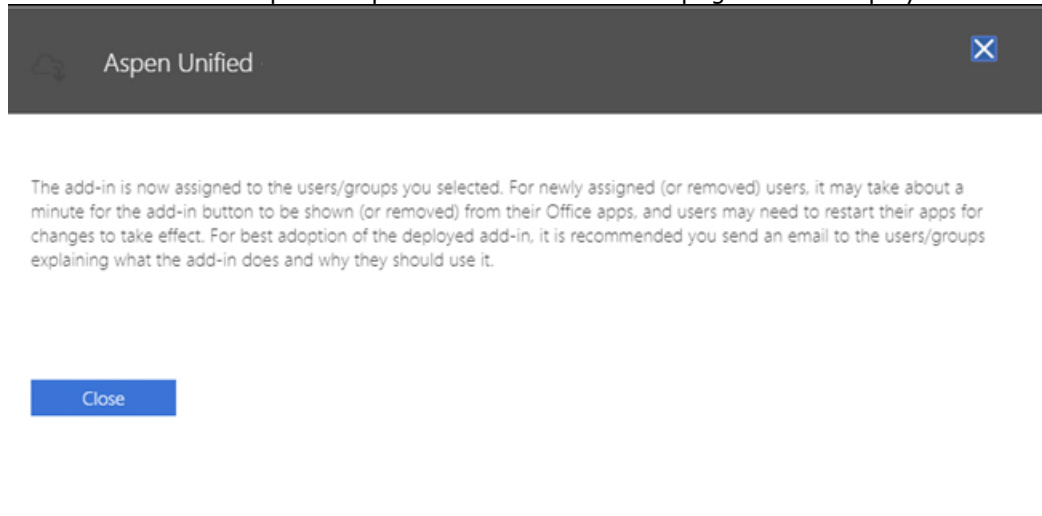
The 'Aspen Unified' summary page is shown. It has a title bar with a blue icon and the text 'Aspen Unified'. Below the title bar, there is a table with the following information:

Version	1.0.0.1
Host Apps	Excel
Provider	AspenTech Inc.
Description	Add-in for integrating with Aspen Unified Application
Capabilities	Can read and make changes to your document Can send data over the Internet

At the bottom, there are two buttons: 'Next' (blue) and 'Cancel' (white with blue border).

9. Click **Next** to proceed.
10. You can now choose to configure who has access to the add-in within your organization. Make your selection and then click **Save** to finish the setup.

11. Once the add-in set up is complete a final confirmation page will be displayed:



12. You can now close the wizard and proceed to *Test Add-in Availability*.

Deploying the Add-in Manifest to a Trusted Shared Folder

1. Create a shared folder

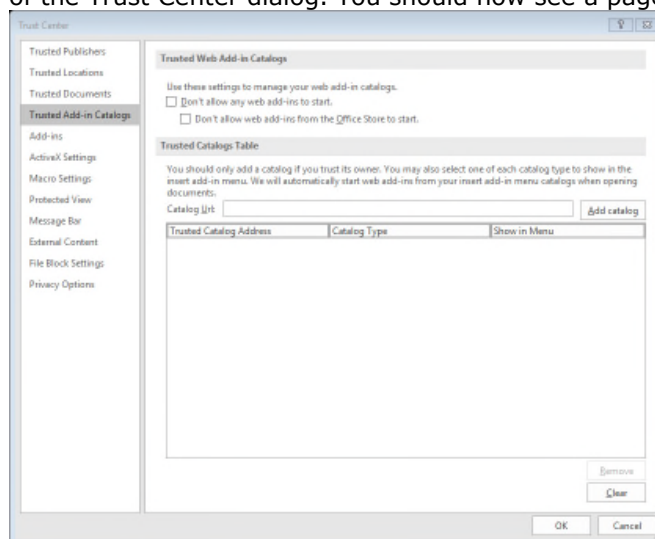
- On your machine, create a folder that all users can access. The folder can reside anywhere in any location.
- Check the folder **Properties** | **Sharing** tab to verify that **Share** has been enabled for **Everyone**.
- Move the manifest file created in the [Generating the Manifest](#) section to this folder.
- Note the folder location. You will need this location to complete registration in Excel.

2. Register the folder in Excel

You must register the folder you created with the **Trusted Add-in Catalogs** in the **Trust Center** of Excel so that Excel knows where to find the add-in information. To do this for an individual user follow these steps:

- Open an Excel document and access the **Excel Options** dialog box by clicking **File** | **Options**.
- Click **Trust Center** from the list of sections on the left-hand side of the dialog.
- Click the **Trust Center Settings...** button that is located underneath the **Microsoft Excel Trust Center** section. This displays the **Trust Center** dialog.

- d. Click **Trusted Add-in Catalogs** from the list of sections on the left-hand side of the Trust Center dialog. You should now see a page like this:



- e. Enter the path to the folder containing the manifest file in the field labelled **Catalog URL**. Be sure to include your full machine name. For example, if your machine name is **aspenunified.abccorp.com** and the folder name is **TrustedAddins**, you would enter the following:
\\aspenunified.abccorp.com\TrustedAddins
 Example if file is on another drive:
\\aspenunified.abccorp.com\f:\TrustedAddins
- f. Click **Add catalog**. You should now see the shared folder path you entered listed in the table and its catalog type set to **Network share**.
- g. Make sure the **Show in Menu** option is selected for the folder you added.
- h. Click **OK** to save changes.
- i. Close all open Excel dialogs and close and restart Excel.

Excel is now configured to trust any add-in manifests that are copied to the shared folder that you have configured. You can proceed to *Test Add-in Availability*.

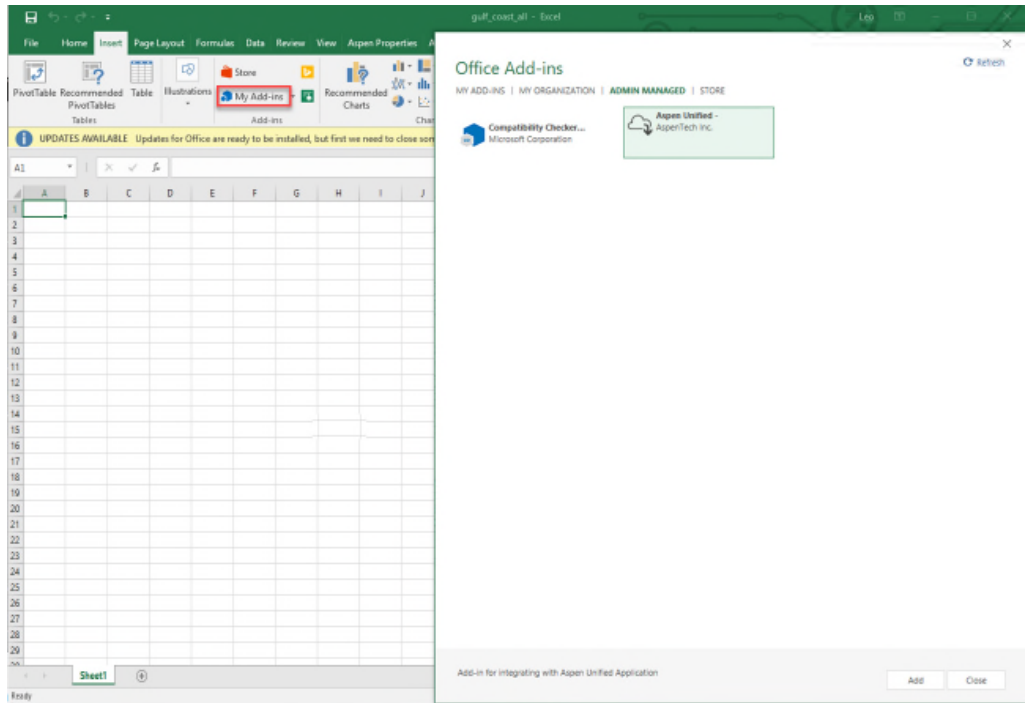
Test Add-in Availability

Regardless of the selected deployment option, follow the steps below to access the Aspen Unified Excel Add-in.

1. Restart Excel and open a blank workbook
2. Add the add-in to the toolbar.

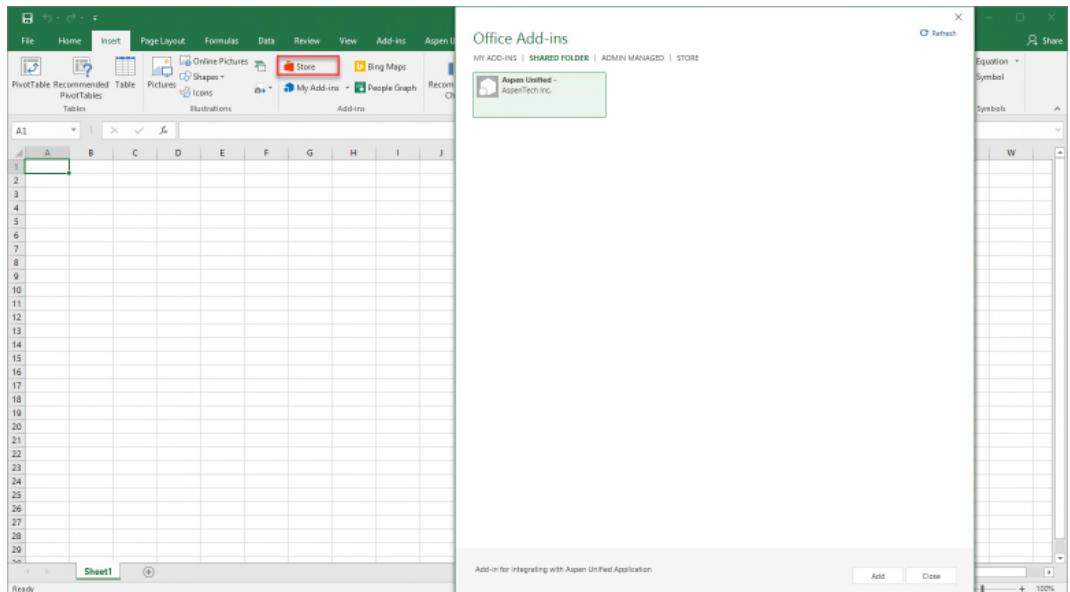
When deploying using Office 365 server, do the following:

- a. From the **Insert** tab on the ribbon click **My Add-ins** in the **Add-ins** section.
- b. On the Office Add-ins page, click the ADMIN MANAGED tab. You should see the Aspen Unified add-in.

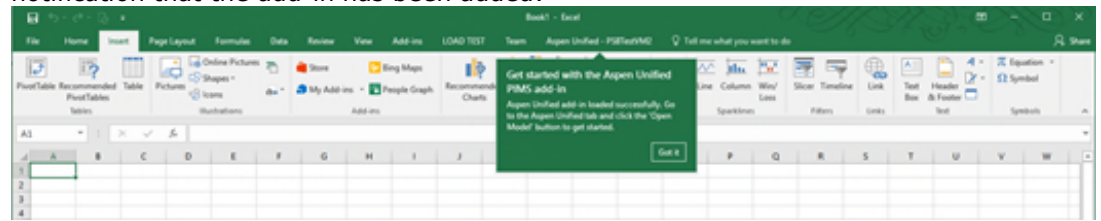


When deploying using a shared folder, do the following:

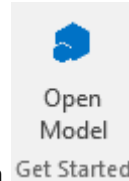
- From the **Insert** tab on the ribbon click the **Store** button in the **Add-ins** section.
- On the **Office Add-ins** page, click the **SHARED FOLDER** tab. You should see the Aspen Unified add-in.



- c. Double-click the **Aspen Unified add-in** to add it to Excel. You will see a notification that the add-in has been added:



- d. Click on the new ribbon tab **Aspen Unified - <machine name>** and then



click on the **Open Model** button to activate the Aspen Unified task pane. The pane will display and start to load the list of available models. See the AU online help on how to use the Excel Add-in.

6 Aspen Petroleum Scheduler, Aspen Multi-Blend Optimizer and Aspen Report Writer Post Installation

Overview

This chapter describes post installation instructions for Aspen Petroleum Scheduler, Aspen Multi-Blend Optimizer, Aspen Report Writer and Excel Add-ins.

Excel Trust Center Macro Settings

To ensure simulation/optimization, use of the Excel Multi-Event Editor and other features that use Excel perform correctly, you will need to verify a **Trust Center** option prior to running your Aspen application. If the option described below is not set, you will receive a Microsoft Visual Basic run-time error or erratic behavior when the application attempts to access Excel.

1. Launch **Excel** and access **Excel Options**.
2. Click **Trust Center**.
3. On the main **Trust Center** screen, click **Trust Center Options**.
4. Click **Macro Settings**.
5. Locate the **Developer Macro Settings** section and enable the **Trust access to the VBA project object model**.

Note: Depending on your version of Excel, the specific steps to access this option may vary, but you must have the **Trust access to the VBA project object model** option selected to ensure proper application operation.

Adapter Configuration

If you are not using adapters, be sure to set the **CONFIG** table keyword **USEADAPTER** to **N**. The default is **Y**, indicating you will be using adapters.

Please refer to the specific application integration user guides for pre-requisites and specific instructions on how to setup adapters.

SQL and Oracle Database Configuration

If you plan to use an SQL Server or Oracle database to store Petroleum Scheduler or Multi-Blend Optimizer model data, you will need to perform the necessary post installation steps described in the **Appendix** of the **Petroleum Scheduler** or **Multi-Blend Optimizer Help** file that can be accessed directly from the product.

Using MS Office 365 with Aspen Petroleum Scheduler and Aspen Multi-Blend Optimizer Access Databases

There is a known compatibility issue when running Office 365 on Windows 10 or Windows 8.1 and using Access databases. Without performing the following, you will not be able to open your databases.

Note: The steps below will work for both 32 or 64 bit versions of Office 365. If running the 64 bit version of Office 365, another option is to create a DSN for each database and skip the steps below.

Please follow the steps below:

1. Download the **Microsoft Access Database Engine 2010 Re-distributable** from the following location:
<http://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=13255>
2. Click **Download** and select **AccessDatabaseEngine.exe**.
3. Click **Next** to start the download process. The executable can be found in your **Downloads** folder.
4. Once downloaded, install **AccessDatabaseEngine.exe** by right-clicking and selecting "**Run as Administrator**". Follow the instructions. You can also run the installation by double-clicking on the file.

The installation installs an associated driver that you can see under **Control Panel | Programs | Programs and Features**.

Example: Microsoft Access database engine 2010

After completing the steps above, you will be able to open .mdb databases through the application.

Aspen Report Writer, Aspen Refinery Report Wizard and Aspen Excel Integration Utilities Post-Installation Configuration

Aspen Report Writer, Aspen Refinery Report Wizard and Aspen Excel Integration Utilities are Excel add-ins. After installation, you should see these utilities either on the main Excel toolbar or under Add-ins. If you do not see these utilities, you will need to manually add the add-in to the Excel interface. These steps vary depending on your version of Excel. Please refer to the Microsoft Excel online help for the correct procedure related to add-ins.

7 Upgrading or Repairing Aspen Petroleum Supply Chain Suite Products

Overview

Upgrading or repairing products associated with the Aspen Petroleum Supply Chain, is performed from the installation application. The installation program detects what software has been installed.

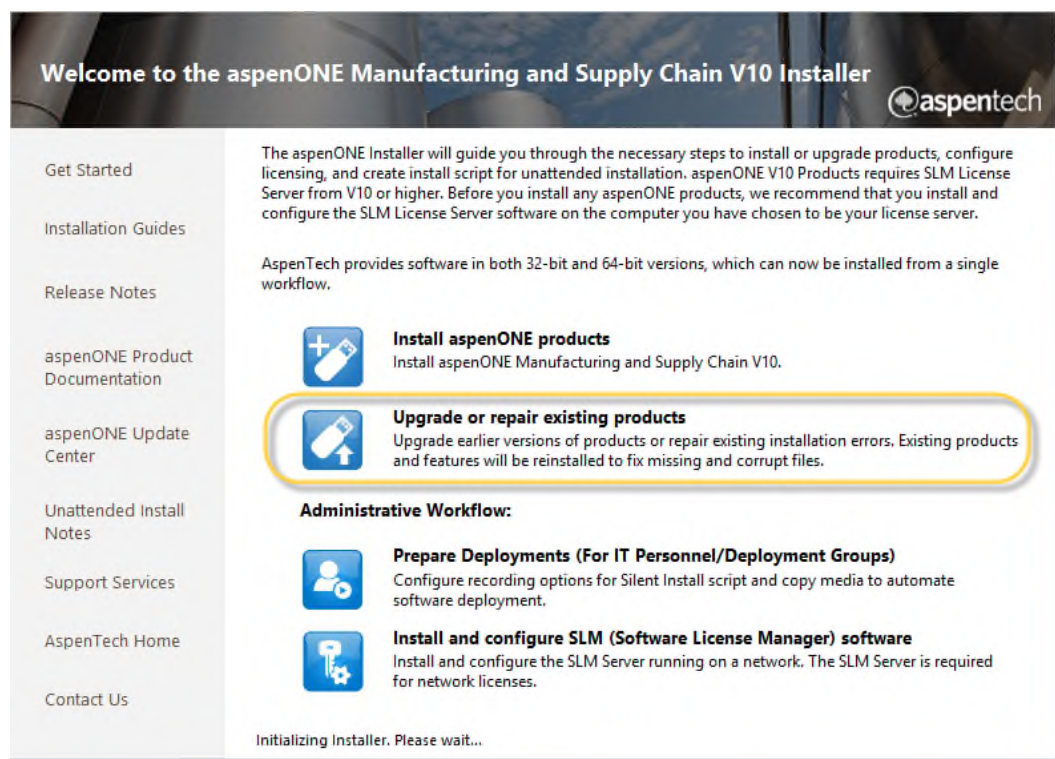
Note: If patches are available for the product that you are installing, you may see a screen that allows you to view those patches before you install. You will also have an opportunity to see the Updates when you finish the installation.

Please also note that coexistence is not supported for Aspen Manufacturing and Supply Chain products (including PIMS). Those products do not support coexistence of multiple versions on any platform (including coexistence with Aspen Engineering products of a different version). Also, different patches of the **same** version cannot coexist.

Aspen PIMS EE and Aspen Olefins Scheduler were sunset in V10 and aspenONE PIMS Platinum was subsumed into Aspen Unified PIMS. Upgrading PIMS, APS or MBO will remove AOS, PIMS EE and Platinum from your system, depending on the product you select to upgrade. You will be warned prior to software removal and will have an opportunity to cancel the upgrade request if desired.

If you are upgrading Aspen Unified PIMS, please refer to the [Upgrading to Aspen Unified](#) section prior to performing the upgrade.

When you get to the **Welcome** screen, click **Upgrade or repair existing products**. You will be prompted on how to continue.



CAUTION: Upgrades on same versions may cause some files to be overwritten. If in doubt as to whether a proper upgrade or repair will occur, please perform the appropriate database backups, uninstall and perform a full install to be sure the most current files have been replaced, registered and installed. This will ensure your application will run and perform as expected.

For **Petroleum Scheduler** or **Refinery Multi-Blend Optimizer**, if you are upgrading from V7.1, and you are using adapters, you will need to install **Aspen Manufacturing Master Data Manager (mMDM)** and **Aspen Enterprise Integration Framework (EIF)**. By default, these options are selected for you.

Localized Versions Of PSC Products

If you are using a localization kit for any PSC products and wish to upgrade to V8.4 or higher, you will first need to uninstall the localization kit.

Current localization kits are version dependent and are not compatible with V8.4 or higher versions.

Please note that your V8.4 or higher products will not be localized until the associated localization kits are available.

Upgrading Aspen Petroleum Scheduler or Aspen Multi-Blend Optimizer to the Latest Version

When upgrading to a new version, you should run DBUpdate.exe on all previous databases to acquire any changed database schemas. Also, starting with V8.7, pipeline scheduling is included that directly affects any events that include pipelines, requiring you to perform an additional upgrade step.

Please note that if your model contains pipelines, you will be required to update pipeline information, whether or not you use the pipeline scheduling feature.

To update pipeline information:

1. Ensure you have updated to the most current schemas by running DBUpdate.exe located in your application folder, on all applicable databases.
2. The **Migrate PIPELINE tables on Update** option will be available if pipelines are detected.
3. Select this option and click **Update**. The **Pipeline Configuration Wizard** launches. Follow the steps to update your database.

Upgrading to Aspen Unified

Starting with V11, Aspen Unified PIMS is now included in the Aspen Unified suite which includes Aspen Unified PIMS and Aspen Unified Scheduling. If you are upgrading from Aspen Unified PIMS to Aspen Unified V11, select the **Upgrade** option during installation. The system will automatically make the necessary changes to upgrade your system. The URL to access AU will change to the following:

<http://localhost/AspenTech/AspenUnified>

If you are uninstalling and then re-installing AU to upgrade or repair your product, please note the following.

If SQL Databases have been removed

The following step is only required if you have **deleted** your SQL databases and are now upgrading/reinstalling AU.

After you have uninstalled AU and prior to reinstalling/upgrading, check that the following file does not exist:

C:\ProgramData\AspenTech\AspenUnified**AspenUnified.config**

If the file is present, it must be deleted. This file contains connection information to AU databases. This file is automatically created when AU databases are created or registered.

If this file is NOT removed, the **Aspen Unified Agent Supervisor Service** is not automatically started during installation. An error will occur, and you will not be able to complete the installation.

After uninstalling AU, proceed with the normal installation steps as described in the previous sections.

If you are using AU V10 databases with the V11- installation

If you previously installed a V10 version of AUP and are upgrading to AU V11 please note the following.

Input Model and database:

Conversion of the input model from V10 or V10 CP1 to V11 will happen automatically when the model is opened.

Results database:

New tables have been added in V11 to support the parametric analysis results. Under normal circumstances, when a model is opened, the system will automatically check for and apply any migrations required. This may fail if the agent supervisor service has insufficient privileges to modify the database schema. If this happens, you may see error messages when solving a model that previously ran correctly.

In this situation, please try one of the following:

- Run the pscadmin register command:
`pscadmin register-database --databaseServer <serverName> --databaseName <resultsDBName>`
When a database that has results tables is registered the system will automatically check for and apply any migrations required.
- -Or-
- Run the pscadmin update command:
`pscadmin update-results-db --databaseServer <serverName> --databaseName <resultsdbName>`

Note: We do not support migration from AU V11-Beta databases to the final release. V11 Beta databases are not supported in AU V11.

Reinstall AU

Proceed with the normal installation steps.

Clear Browser Cache

To ensure what you are seeing using AU is accurate, we suggest you clear browsing data/cache from your browser after any upgrades.

8 Removing the Aspen Petroleum Supply Chain Suite

Overview

This chapter provides instructions for removing the entire Aspen Petroleum Supply Chain suite of products or individual products from your computer.

Before You Remove

Before removing any products, close all applications and all subfeature programs and save any files that you do not want to permanently lose. Pay particular attention to custom configuration files.

Removing the Aspen Petroleum Supply Chain Suite of Products

The supported method for uninstalling Aspen software is by clicking **Start | Programs | AspenTech | Uninstall AspenTech Software**. From here a dialog appears listing all installed AspenTech products. Select the products you wish to uninstall and proceed with any additional instructions as applicable.

9 Troubleshooting

This chapter contains:

- Information that may help you if you have problems installing or running the software
- Information to handle error messages
- Issues and resolutions associated with specific products

Common Problems

The following is a list of considerations to help solve installation problems.

- License file is not installed on the computer.
- Pre-requisite software has not been installed
- No local administrative rights to your computer.
- Windows Registry is corrupted.
- Insufficient rights to servers and/or various folders.
- Network inoperable.
- Incorrect license file for software being installed.
- Hard drive is full.
- Not enough space in the "temp" directory.
- Incorrect operating system.

Error Messages

Registry Settings

Errors associated with registry settings are usually due to insufficient rights for changing those settings. You must have administrative privileges on the computer you are installing on in order to change registry settings.

Firewall Settings

Messages that appear during installation related to firewall restrictions should be directed to your IT department due to individual company policies regarding application installation and security.

Aspen Unified

Aspen Unified Fails to Start

Problem

When attempting to launch Aspen Unified after installation on a Windows 7 operating system, you see a message similar to the following:

Could not load type 'System.ServiceModel.Activation.HttpModule

This is a known issue. According to MSDN:

"This error can occur when there are multiple versions of the .NET Framework on the computer that is running IIS, and IIS was installed after .NET Framework 4.0 or before the Service Model in Windows Communication Foundation was registered."

General Resolution

To resolve the issue of having multiple versions of .NET installed and running IIS, is to ensure the correct version of .NET is running with the installed version of IIS.

Resolution for Windows 7

1. Open a command line prompt with administrator privileges.
`Command Prompt (Admin)`
2. Navigate to the correct location by entering the following:
`cd\Windows\Microsoft.NET\Framework64\v4.0.30319`
3. Enter the following command:
`aspnet_regiis.exe -iru`
4. After enter:
`iisreset`

Resolution for Windows Server 2012 R2

Proceed to:

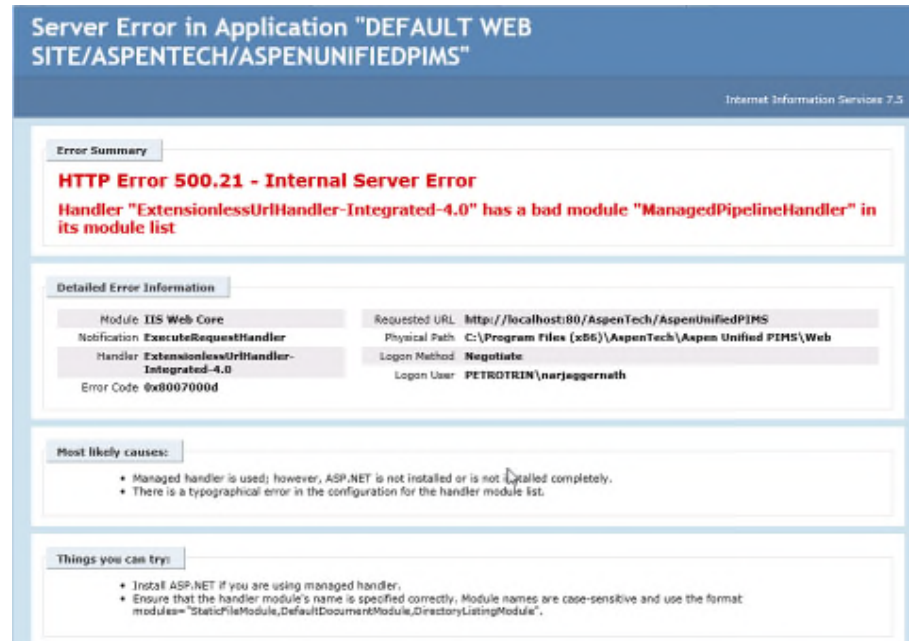
<http://go.microsoft.com/fwlink/?LinkID=216771>

Determine which situation is applicable and follow the steps to resolve the issue.

Aspen Unified Displays an Internal Server Error

Problem

When launching AU, you see the following message:



AU website is not able to correctly launch.

General Resolution 1

To resolve this issue, ensure that the necessary ASP.NET components are installed and registered properly.

Resolution for Windows 7

1. Open a command line prompt with administrator privileges.
[Command Prompt \(Admin\)](#)
2. Navigate to the correct location by entering the following:
`cd\Windows\Microsoft.NET\Framework64\v4.0.30319`
-or-
If ...\\Framework64\\v4.0.30319 is not present, try
...\\Framework\\v4.0.30319
3. Enter the following command:
`aspnet_regiis.exe -i`
Running this command installs ASP.NET 4 and updates existing applications to use the ASP.NET 4 version of the application pool.

Resolution for Windows Server 2012 R2

1. Proceed to:
<http://go.microsoft.com/fwlink/?LinkID=216771>
2. Determine which situation is applicable and follow the steps to resolve the issue.

General Resolution 2

If the ASP.NET components have been installed and correctly registered, another possible cause for this issue may be a missing MIME setting.

Check/add the MIME type for the .json files

1. Open IIS.
2. Click on the server node in the **Connections** pane. The server **Home** features appear in the server **Home** panel next to the **Connections** pane.



3. On the **Home** panel in the IIS section, double-click **MIME Types**. MIME details display.
4. Look for the **.json** entry:



MIME Types

Use this feature to manage the list of file name extensions and associated content types that are

Group by: No Grouping		
Extension^	MIME Type	Entry Type
.jpg	image/jpeg	Local
.js	application/javascript	Local
.json	application/json	Local
.jsx	text/jscript	Local
.latex	application/x-latex	Local
.lit	application/x-ms-wml	Local

5. If this entry is missing, add it by doing the following:
 - a. Right-click and click **Add**. The **Add MIME Type** dialog box appears.
 - b. Enter **.json** for the **File name extension**.
 - c. Enter **application/json** for the **MIME type**.
 - d. Click **OK** to add.
6. Exit IIS and restart the IIS service if needed.
7. Re-launch Aspen Unified.

Aspen Unified Displays a Health Check Error

Problem

When launching AU, you see the following message:

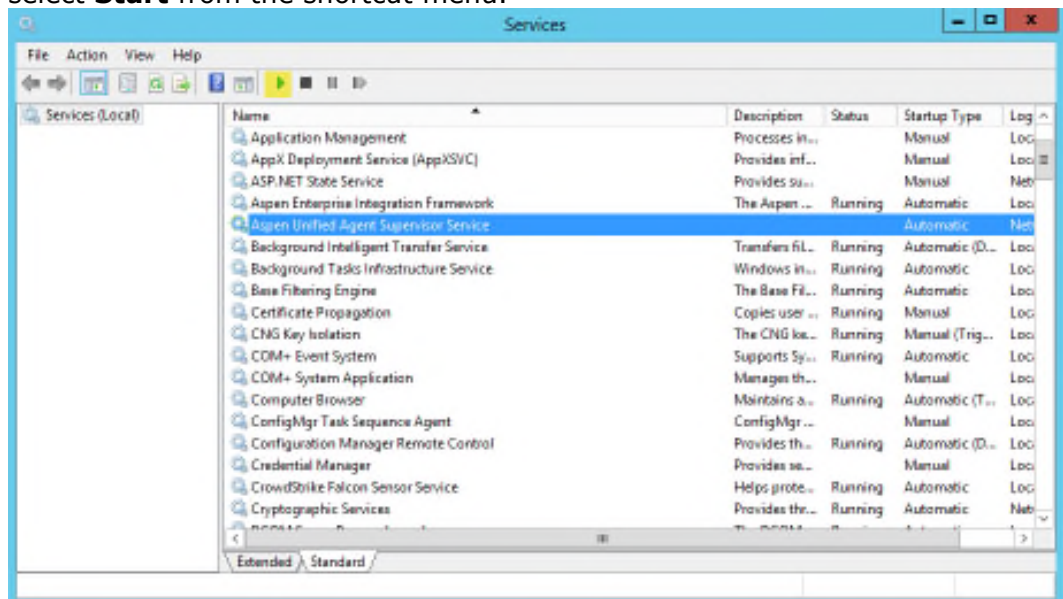
Error AgentSupervisor Service: "AgentSupervisor Service is not accessible or not running"

This may occur after you have re-installed AU. It indicates that a required service is not running.

Resolution

To resolve this issue, you will need to restart the service named:
Aspen Unified Agent Supervisor Service

1. Launch the Services application by opening a **Run** window and typing **services.msc**. The **Services** application displays.
2. Click to select the service called **Aspen Unified Agent Supervisor Service**.
3. Click the Start Service button at the top of the screen or, right-click and select **Start** from the shortcut menu.



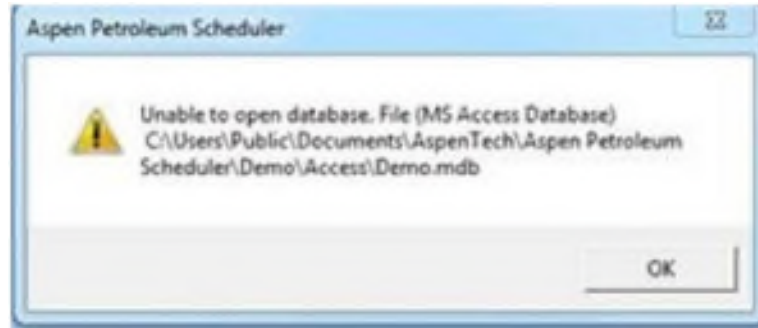
4. Close the Services application and relaunch AU.

Aspen Petroleum Scheduler

Error opening an Access database on launching Demo model

Problem

On launching the Demo model, a message appears similar to the following:



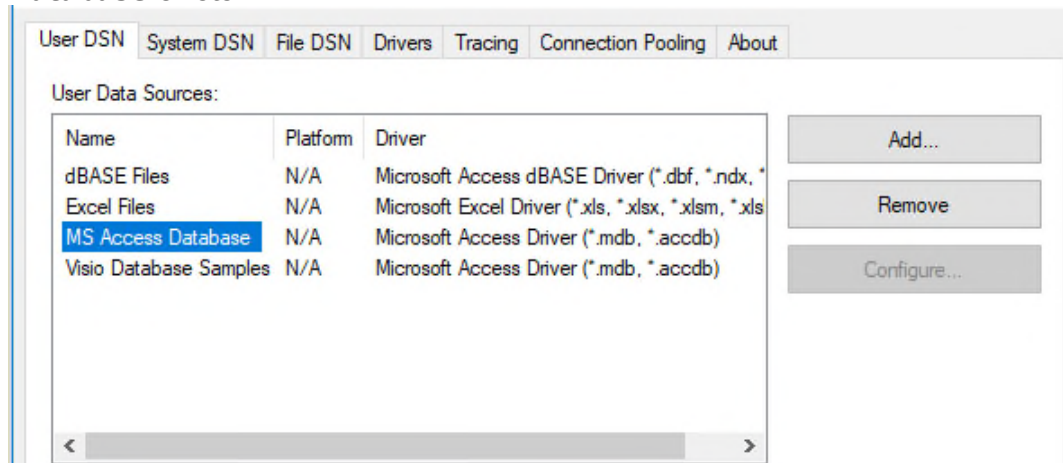
The cause of the problem can be the following:

1. You do not have MS Access driver installed
-or-
2. The default connection for the MS Access database has not been created.

Resolution for problem 1

Create a MS Access connection

1. Open the ODBC Administrator.
2. On the **User DSN** tab, verify that a data source called **MS Access Database** exists.



3. If it does not exist, click **Add** to create a new connection with that name.

Resolution for problem 2

Default connection for MS Access database was not created

In case you cannot locate the MS Access driver in the ODBC window, you need to install the ODBC driver.

1. Download the 32-bit version of the Microsoft Access Database Engine 2010 re-distributable from the following location:

<https://www.microsoft.com/en-us/download/details.aspx?id=13255>

2. Download **AccessDatabaseEngine.exe**.
3. Once downloaded, install AccessDatabaseEngine.exe by opening a **Command** prompt, with **Admin privileges**, and then typing AccessDatabaseEngine /passive.

After installation, you will be able to open any .mdb file without any issues.

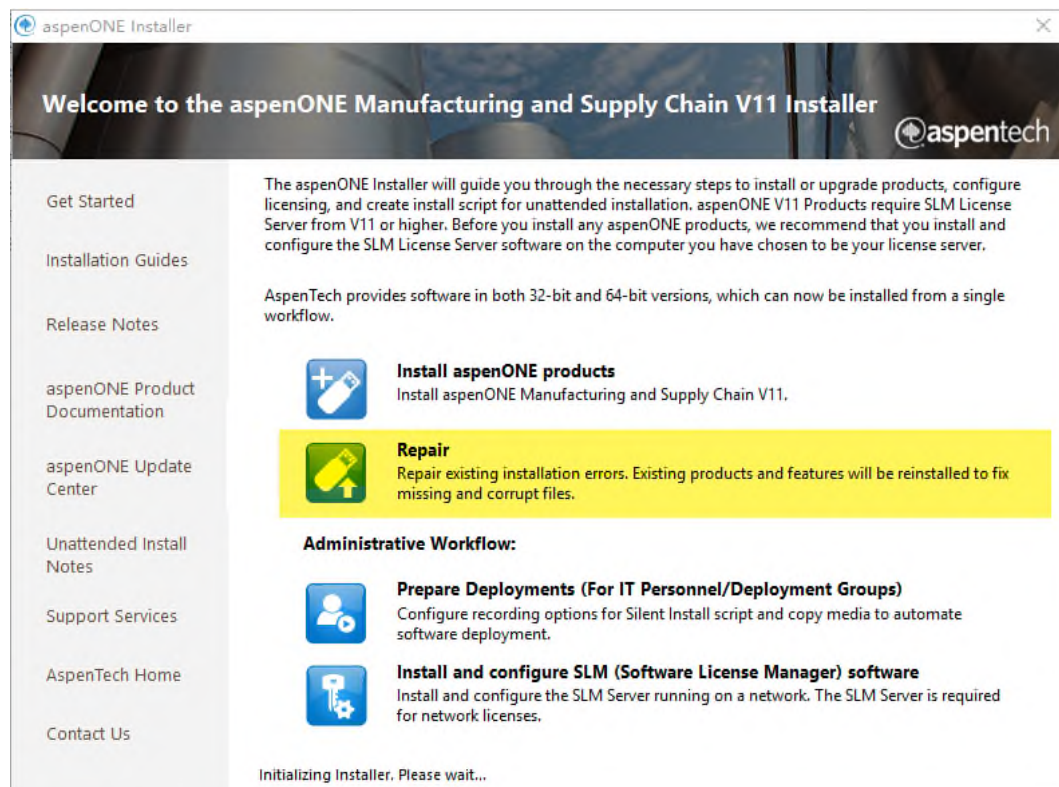
Aspen Excel Utilities

Problem

After performing any uninstall and reinstall of Microsoft Office (e.g., upgrading, downgrading or repairing), the AspenTech Excel utilities are no longer visible or will not launch from Excel.

Resolution

Obtain the matching installation media associated with the current version of installed AspenTech products. Run the AspenTech Repair option.



10 Appendix – Aspen Unified PIMS Model Migration Details

This chapter contains additional information regarding migrating Aspen PIMS models to Aspen Unified PIMS and other configuration details.

Notes on Aspen Unified PIMS Migration

Prior to migrating your PIMS models, please review the following sections for specifics on how model migration from PIMS to Aspen Unified PIMS (AUP) is handled. This information is also available in the *AU Online Help*.

General Notes

- Prior to migrating PIMS models, be sure that your model runs successfully as a PIMS AO (Advanced Optimization) model.
- **CCAP** rows in Table **ASSAYS** are not supported.
- For **ALTTAGS**:
 - They are not supported in model structures (e.g., PCALC and Submodels) other than **Purchases** and **Sales**.
 - If a material with an ALTTAG is included in a group, then all the ALTTAGS will be in the group as well.
 - If the PIMS model has the AO model setting enabled, the **Model level** setting will be automatically set to **Advanced**.
 - If the model has an undisposed deferred cut, then it will not be allowed to use the built in assay system in AUP. An error appears and you will not be allowed to use the Built-in Assay System option. AUP will successfully migrate the model, and the undisposed deferred cut will be added to the model Materials and can have associated properties.In addition:

- The undisposed deferred cuts will be visible on the distillation mode diagram in a separate block from any towers or splitter submodels.
- The deferred cuts will also be visible on the Assay Cutting Data screen.

Unsupported Tables in AUP

The following tables are not supported in the current release. Information from the following tables will not be migrated.

PIMS Model Tree Section	PIMS Table
Blending	PROPRNG
	ABMLSUBF
	NLPROP
Distillation	NEWCUT
	SWING
	CRDPCALC
	CRDQUAL
	CRDALLOC
	CRDTANKS
Supply/Demand	RECEIVE
	SHIP
	CRDMIX
Miscellaneous	EXPERT
	GOBOUNDS
	PARAOBJ
	DISPLAY
	PRNTABS
	REPORT
	MSGSUP
	RWGRPBLN
	RWGRPSTR
	RWGRPUNT
	RWXLTS
	SERVERS
	SKDSLICE
	SKEDLINK
	SOLNKPIS
	USER
	XBOUNDS

PIMS Model Tree Section	PIMS Table
	PERCASE
Recursion	PDIST
Periodic	PSPAN
	PBLNSPEC
	PBLNPER
	ACCUQUAL

Use of Replace/ReplaceAll

The following tables support the REPLACE/REPLACEALL Table CASE keyword functions when migrated to AUP.

PIMS Table	AUP Table 1	AUP Table 2
BUY	Material Purchases	Material Group Purchases
SELL	Material Sales	Material Group Sales
UTILBUY	Utility Purchases	Utility Group Purchases
UTILSELL	Utility Sales	Utility Group Sales
BLNSPEC	Blends Specifications	Single Blend Specifications
CAPS	Capacities	Limits Summary
PROCLIM	Process Limits	Limits Summary
PINV	Material Inventories	Inventory Groups
BOUNDS	Bounds Data	
ROWS	Rows Data	

Table RFG Migration Support

AUP does not have a UI to support the PIMS table RFG. Instead, the same information is modeled through the ABML correlations and the property definitions. When migrating a model that has regulatory blends defined in the blending specifications (i.e., TYPE value defined), the migration logic automatically creates the needed correlation in the ABML structures and use all the relevant information from table RFG.

A brief summary of RFG migration is as follows:

1. In PIMS table BLNSPEC, for any value of TYPE, a correlation to ABML is automatically added if it is not already there:
 - a. TYPE 1, 2, 11 → EPA added
 - b. TYPE 3, 10 → CARB added
 - c. TYPE 4-9 → CARB3 added
 - d. TYPE 12-14 → CARB3M added
2. For the input tags, the names in column TEXT in ABML are matched to ROWNAME from table RFG.

3. The entries in column SCALE in Table RFG are added to the particular input tag in table ABML. The entries in column CARB are set as an OPTION for correlations CARB, CARB3, CARB3M. The option name is the same as the default input tag name.
4. The entries in column INDEX in Table RFG are added as a flag to the appropriate quality tag in AUP.
5. The output tags in ABML are mapped to the existing ABML tags, so ROWNAME equals TEXT.

PIMS CASE Keyword Support

Case stacking keywords	How AUP handles it
CASE	Cases are created through the case hierarchy or list.
EMPTY	Manually clear the value in the table
EXPERT	Table EXPERT and Keyword EXPERT are not supported in AUP
FBR	Not supported
GENERATE	Not supported
LOADSOL	The Use case-specific input solution option on Definition tab of the Case Details screen
MODEL	Not supported
MODIFIES	Implicit by where in the case hierarchy the case is positioned.
PERIOD	Not supported
REPLACE	Only supported for a limited number of tables. Specified on the "Advanced" tab of the Case Details screen.
REPLACEALL	Only supported for a limited number of tables. Specified on the "Advanced" tab of the Case Details screen.
SAVESOL	The Use case-specific input solution option on the Definition tab of the Case Details screen
SAVEXLP	Not supported
TABLE	Changes are made directly to the referenced table.