



**CCH<sup>®</sup> ProSystem fx<sup>®</sup> Workpaper Manager**  
Installation Guide

2017

© 2017 CCH Incorporated and its affiliates and licensors. All rights reserved. Material in this publication may not be reproduced or transmitted, in any form or by any means, without prior written permission. Requests for that permission should be directed to:

CCH Incorporated  
20101 Hamilton Ave.  
Suite 200  
Torrance, CA 90502

The contents of this publication are believed to be accurate. However, responsibility cannot be assumed for the information contained herein, and the consequences resulting from the use thereof. Material in this publication is subject to change without notice.

This Installation Manual and the computer software it describes are designed to provide accurate and authoritative information in regard to the subject matter covered. They are distributed with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

"CCH ProSystem *fx* Workpaper Manager" is a registered trademark of CCH INCORPORATED.

"Windows" is a registered trademark of Microsoft Corporation.

All other brand, product, or company names are trademarks or registered trademarks of their respective owners.

Printed in U.S.A.

# Contents

<b>Installation</b>	<b>1</b>
Workpaper Manager 2017 System Requirements .....	2
Administrator Module .....	2
Workpaper Management Module .....	5
Terminal Services Client Module .....	9
Terminal Services Database Module .....	10
Note Regarding Adobe® Reader® 11 and DC .....	10
Installation Considerations .....	11
Deployment Planning .....	11
Compressed Drives and/or Partitions .....	11
Technical Considerations .....	12
CCH ProSystem fx Workpaper Manager Administrator Considerations ....	13
Pre-Installation Checklist .....	14
Installation Instructions .....	15
Installing Workpaper Manager for the First Time .....	15
Upgrading an Existing Version of Workpaper Manager .....	19
Post-Installation Checklist .....	20
Altering a Current Install of Workpaper Manager .....	20
Modifying a Current Install .....	20
Repairing a Current Install .....	21
Removing CCH ProSystem fx Workpaper Manager .....	22
Terminal Services Installation .....	22
Terminal Services Database Installation .....	23
Terminal Services Client Installation .....	25
Using the CCH ProSystem fx Workpaper Manager Administrator .....	26
Initial Login to the Workpaper Manager Administrator .....	26
<b>Appendix A: Installing SQL Server® 2012</b>	<b>28</b>
Installing SQL Server® 2012 .....	28
Creating a New SQL 2012 32-bit or 64-bit Instance for Workpaper Manager .....	28
Upgrading SQL 2012 .....	28
Recommended Operating Systems .....	29
Creating the SQL Server® 2012 Instance .....	29
Install SQL 2012 Express Instance Installer or Upgrade from SQL 2008 or	40

# Contents

SQL 2005 32-bit Express Instance Installer .....	
Creating a New SQL 2012 Express 64-bit Instance for Workpaper Manager .	40
<b>Appendix B: Installing SQL Server® 2014</b>	<b>42</b>
Installing SQL Server® 2014 .....	42
Creating a New SQL Server® 2014 32-bit or 64-bit Instance for Workpaper Manager .....	42
Upgrading SQL 2014 .....	42
Recommended Operating Systems .....	42
Creating a SQL Server® 2014 Instance .....	43
Creating a SQL Server® 2014 Express Instance or Upgrading a 32-bit Instance for Workpaper Manager .....	52
Creating a SQL Server® 2014 Express 64-bit Instance for Workpaper Manager .....	52
<b>Appendix C: Installing SQL Server® 2016</b>	<b>54</b>
Installing SQL Server® 2016 .....	54
Creating a New SQL Server® 2016 64-bit Instance for Workpaper Manager .....	54
Upgrading SQL 2016 .....	54
Recommended Operating Systems .....	55
Creating a SQL Server® 2016 Instance .....	55
Upgrading from a 32-bit Microsoft® SQL Server® Instance to SQL Server® 2016 .....	65
Creating a SQL Server® 2016 Express Instance or Upgrading a 64-bit Instance for Workpaper Manager .....	65
<b>Appendix D: Installing Workpaper Manager with Active Directory®</b>	<b>67</b>
Installing Workpaper Manager with Active Directory® .....	67
Requirements .....	67
Pushing CCH ProSystem fx Workpaper Manager .....	68
<b>Appendix E: Technical Considerations</b>	<b>69</b>
General Program Information .....	69
Computer Names .....	69
TCP/IP .....	69
Services .....	70
Ports .....	71

# Contents

Other SQL Applications .....	71
Installation in a Non-Windows® Environment (Linux®) .....	71
Requirement .....	72
Procedures .....	72
Other Information .....	72
User Rights .....	72
Admin Share Folder .....	72
Domain Controllers .....	73
Macro Security Settings Requirements for Excel® and Word Addins .....	73
Workpaper Location User Rights .....	73
Workpaper Location User Rights for Shared File Room .....	74
Time Synchronization .....	74
Citrix®/Terminal Services - Shared File Room .....	74
ISA (Internet Security and Acceleration) Server Connection Settings .....	75
Supported Microsoft® Windows® Operating Systems and Windows® Servers® .....	75
CCH ProSystem fx Workpaper Manager Database Backup & Restore Utility .....	75
Third Party Backup and Restore Processes .....	75
Name Resolution - Connecting to Workpaper Manager .....	76
Microsoft® Word and Gridlines with OLE Links .....	76
Support .....	76
<b>Appendix F: Database Backup and Restore .....</b>	<b>77</b>
Database Backup and Restore .....	77
Overview .....	77
Backup Considerations .....	78
Additional Files to Be Backed Up .....	78
Back Up the Database Backup File .....	79
Disable Synchronization .....	79
Close CCH ProSystem fx Workpaper Manager Administrator .....	79
Differential Backups .....	79
Running the Backup Utility (User Interface) .....	80
Running the Backup Utility (Task Scheduler) .....	85
Restore Considerations .....	93

# Contents

Additional Files to Be Restored .....	93
Disable Synchronization .....	94
Review Administrative Changes Since Last Backup .....	94
Close CCH ProSystem fx Workpaper Manager Administrator .....	94
Restoring from a Differential Backup File .....	94
Running the Restore Utility (Restore All Office Server Databases) .....	94
Running the Restore Utility (Restore Individual Binder Database Information) .....	98

## INSTALLATION

This guide provides step-by-step instructions for installing the CCH<sup>®</sup> ProSystem fx<sup>®</sup> Workpaper Manager Administrator and Workpaper Management modules. The minimum and recommended system requirements are also provided.

Before you begin, refer to the following documents:

- The *License Agreement* for information and restrictions on installation.
- The *CCH ProSystem fx Workpaper Manager Release Notes* for new product features.
- The *Administrator/Office Server Tips* document for assistance in determining how you should configure office servers for your firm.
- The Deployment Planning Guide for understanding how to properly set up and maintain your environment.

Two CCH ProSystem fx Workpaper Manager modules must be installed in order for the application to function. These modules are the Administrator module and the Workpaper Management module.

The Administrator module is an organizational tool designed to provide security and control rights for different staff levels, as well as organize and maintain your office servers and central file rooms.

The Workpaper Management module relies on the Administrator module to provide login information, central storage, and secured access to all your client data.

 **Note:** If you are installing to a multi-server Citrix<sup>®</sup> farm or to a Windows<sup>®</sup> Terminal Services environment, install CCH ProSystem fx Workpaper Manager Administrator in the standard manner, and then see *Terminal Services Installation* on page 22.

# Workpaper Manager 2017 System Requirements

## Administrator Module

System Requirements	Recommended	Minimum
Microprocessor	64-bit multi-core processor	<p><b>32-bit:</b> Pentium® 4 processor, 2 GHz</p> <p><b>64-bit:</b></p> <ul style="list-style-type: none"> <li>• Pentium® 4 processor, 3.2 GHz, or any multi-core processor</li> <li>• AMD™ Athlon 64, Intel® Pentium® 4 with Intel® EM 64T support</li> </ul>
Supported Operating Systems	<ul style="list-style-type: none"> <li>• Microsoft® Windows® 8.1, 32 and 64-bit</li> <li>• Microsoft® Windows® 10, 32 and 64-bit</li> <li>• Microsoft® Windows Server® 2012 R2</li> <li>• Microsoft® Windows Server® 2016</li> </ul> <p><b>Important:</b></p> <ul style="list-style-type: none"> <li>• Microsoft® Small Business Server®, Windows Server® Essentials, and Windows Server® Foundation are not supported.</li> <li>• Installing Workpaper Manager on a server that is also a Domain Controller is not supported.</li> <li>• Installing Workpaper Manager on a server that is also the firm's Exchange Server is not supported.</li> <li>• Linux® is supported for workpaper storage only.</li> <li>• Microsoft® Windows® 8.1 Pro and Enterprise Editions are supported.</li> <li>• Microsoft® Windows® 8 is not supported; we recommend upgrading to Windows® 8.1 or Windows® 10.</li> <li>• Microsoft® Windows® 7 is supported; however, Microsoft® ended mainstream support for this operating system on January 13, 2015. We recommend upgrading to Windows® 8.1 or Windows® 10 as soon as possible.</li> <li>• All Microsoft® Windows® Home Editions are not supported.</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® Windows® 7, SP 1</li> <li>• Microsoft® Windows Server® 2012 (64-bit)</li> </ul>

System Requirements	Recommended	Minimum
	4 to 8 GB RAM	<b>32-bit:</b> 2 GB RAM <b>64-bit:</b> 4 GB RAM
System Memory	<b>Notes:</b> <ul style="list-style-type: none"> <li>Additional memory improves performance and may be required to run additional applications simultaneously.</li> <li>Memory consumption varies based on usage of Microsoft® SQL Server®.</li> </ul>	
Drive Space	Administrator requires approximately 405 MB of drive space when installed with the CD image files, 3.5 GB of drive space in the Temp folder, and additional space required for data.	
Video	Super VGA at 32-bit color quality with a resolution of 1024 x 768. CCH ProSystem <i>fx</i> Workpaper Manager does not support large fonts.	
Network Environment		
Microsoft®	Client for Microsoft® Networks and Microsoft® TCP/IP.	
Other Software		
SQL	SQL Server® 2014, SP1 <ul style="list-style-type: none"> <li>SQL Server® 2014 Standard Edition (32-bit and 64-bit)</li> <li>SQL Server® 2014 Business Intelligence Edition (32-bit and 64-bit)</li> <li>SQL Server® 2014 Enterprise Edition (32-bit and 64-bit)</li> </ul> SQL Server® 2016, SP1 <ul style="list-style-type: none"> <li>SQL Server® 2016 Standard Edition (64-bit)</li> <li>SQL Server® 2016 Business Intelligence Edition (64-bit)</li> <li>SQL Server® 2016 Enterprise Edition (64-bit)</li> </ul>	SQL Server® 2012, SP2 <ul style="list-style-type: none"> <li>SQL Server® 2012 Standard Edition (32-bit and 64-bit)</li> <li>SQL Server® 2012 Business Intelligence Edition (32-bit and 64-bit)</li> <li>SQL Server® 2012 Enterprise Edition (32-bit and 64-bit)</li> </ul>

System Requirements	Recommended	Minimum
---------------------	-------------	---------

**Notes:**

- If you need to set up SQL manually, see *Appendix A: Installing SQL Server® 2012* on page 28 , *Appendix B: Installing SQL Server® 2014* on page 42, or *Appendix C: Installing SQL Server® 2016* on page 54:
  - 64-bit editions of SQL Server®
  - Standard Editions of SQL Server®
  - Enterprise Editions of SQL Server®

These sections describe how to set up SQL with Workpaper Manager manually.

- Depending on usage, Standard, Business Intelligence, or Enterprise Edition of Microsoft® SQL Server® may be necessary.

Data Access Components	<p>The following items are installed automatically with Workpaper Manager:</p> <ul style="list-style-type: none"> <li>• Microsoft® Jet Database Engine 4.0 with Service Pack 6</li> <li>• Soap Toolkit 3.0</li> <li>• MSXML 6.0, SP1</li> <li>• SQLXML 4.0 SP1</li> <li>• Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.17</li> <li>• Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.4148</li> <li>• Microsoft® Visual C++® 2010 Redistributable x86 10.0.40219</li> <li>• SQL Native Client 2008 (x86 for 32-bit; x64 for 64-bit)</li> </ul> <p>The following items are installed automatically with CCH ProSystem fx Workpaper Manager:</p> <ul style="list-style-type: none"> <li>• SQL 2016 CLR (x86 for both 32 and 64-bit), Admin only</li> <li>• SQL Server® 2016 Management Objects (SMO) (x86 for both 32-bit and 64-bit), Admin onl</li> </ul> <p>Microsoft® .NET Framework 4.6.1 Full is required by Workpaper Manager.          Adobe® Reader® 11 or DC.</p> <p><b>Note:</b> Adobe® Reader® 11 and DC are supported, but Workpaper Manager workpapers must be opened with Reader's Protected Mode turned off</p>
------------------------	---

Web Browser	<p>Microsoft® Internet Explorer® 10 or higher.          Microsoft® Edge</p>
-------------	---

System Requirements	Recommended	Minimum
Email	Microsoft® Mail, Microsoft® Exchange, Internet SMTP/POP3, or other MAPI compliant messaging software to use network or Internet email	None
Other Hardware		
Internal or External Installation Media drive, if applicable	Any internal or external Installation Media compatible drive, if applicable for reading the installation media.	

## Workpaper Management Module

System Requirements	Recommended	Minimum
Microprocessor	Multi-core processor	<p><b>32-bit:</b> Pentium® 4 processor, 2 GHz</p> <p><b>64-bit:</b></p> <ul style="list-style-type: none"> <li>• Pentium® 4 processor, 3.2 GHz (or any multi-core processor)</li> <li>• AMD™ Athlon 64, Intel® Pentium® 4 with Intel® EM 64T support</li> </ul>

System Requirements	Recommended	Minimum
Supported Operating Systems	<ul style="list-style-type: none"> <li>Microsoft® Windows® 8.1, 32 and 64-bit</li> <li>Microsoft® Windows® 10, 32 and 64-bit</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft® Windows® 7, SP 1</li> </ul>
	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Microsoft® Windows® 8.1 Pro and Enterprise Editions are supported.</li> <li>Microsoft® Windows® 7 is supported; however, Microsoft® ended mainstream support for this operating system on January 13, 2015. We recommend upgrading to Windows® 8.1 or Windows® 10 as soon as possible.</li> <li>Microsoft® Windows® 8 is not supported; we recommend upgrading to Windows® 8.1 or Windows® 10.</li> <li>All Microsoft® Windows® Home Editions are not supported.</li> </ul>	
System Memory	<p><b>32-bit:</b> 2 GB RAM</p> <p><b>64-bit:</b> 4 GB RAM</p>	<p><b>32-bit:</b> 2 GB RAM</p> <p><b>64-bit:</b> 4 GB RAM</p>
	<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Additional memory improves performance and may be required to run additional applications simultaneously.</li> <li>Memory consumption varies based on usage of Microsoft® SQL Server®.</li> </ul>	
Drive Space	<p>Workpaper Management requires approximately 621 MB of drive space, 3.5 GB of free space for the Temp folder during installation, and additional space required for data.</p>	
Video	<p>Super VGA at 32-bit color quality with a resolution of 1024 x 768.</p> <p><b>Note:</b> CCH ProSystem fx Workpaper Manager does not support large fonts.</p>	

System Requirements	Recommended	Minimum
Other Software		
Microsoft® Office	<ul style="list-style-type: none"> <li>• Microsoft® Office 365™ - Desktop version</li> <li>• Microsoft® Office 2016, 32-bit and 64-bit</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• Only Professional editions of Microsoft® Office are certified to work with Workpaper Manager.</li> <li>• Microsoft® Office 365™ Online version is not supported.</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft® Office 2013, SP1, 32-bit and 64-bit</li> </ul>
SQL	<ul style="list-style-type: none"> <li>• Microsoft® SQL Server® 2014 Express, SP1</li> <li>• Microsoft® SQL Server® 2016 Express, SP1</li> </ul> <hr/> <p><b>Notes:</b></p> <p>See <i>Appendix A: Installing SQL Server® 2012</i> on page 28 , <i>Appendix B: Installing SQL Server® 2014</i> on page 42, or <i>Appendix C: Installing SQL Server® 2016</i> on page 54:</p> <ul style="list-style-type: none"> <li>• 64-bit editions of SQL Server®</li> <li>• Standard Editions of SQL Server®</li> <li>• Enterprise Editions of SQL Server®</li> </ul> <p>These sections describe how to set up SQL with Workpaper Manager manually.</p>	<ul style="list-style-type: none"> <li>• Microsoft® SQL Server® 2012 Express, SP2</li> </ul>

System Requirements	Recommended	Minimum
Data Access Components	<p>The following items are installed automatically with CCH ProSystem fx Workpaper Manager:</p> <ul style="list-style-type: none"> <li>• Microsoft® Jet Database Engine 4.0 with Service Pack 6</li> <li>• Soap Toolkit 3.0</li> <li>• MSXML 6.0 SP1</li> <li>• SQLXML 4.0, SP 1 will be installed with Workpaper Management and Terminal Services Database</li> <li>• Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.17</li> <li>• Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.4148</li> <li>• Microsoft® Visual C++® 2010 Redistributable x86 10.0.40219</li> <li>• SQL Native Client 2008 (x86 for 32-bit; x64 for 64-bit)</li> </ul> <p>Microsoft® .NET Framework 4.6.1 is required by Workpaper Management. If Office 2013 or 2016 is installed, the following item is installed automatically:</p> <ul style="list-style-type: none"> <li>• Visual Studio® Tools for the Office System 4.0 Runtime</li> </ul> <p>Adobe® Reader® 11 or DC.</p> <p><b>Note:</b> Adobe® Reader® 11 and DC are supported, but Workpaper Manager workpapers must be opened with Reader's Protected Mode turned off.</p>	
Web Browser	<p>Microsoft® Internet Explorer® 10 or higher. Microsoft® Edge</p>	
Email	<p>Microsoft® Mail, Microsoft® Exchange, Internet SMTP/POP3, or other MAPI compliant messaging software to use network or Internet email</p>	None
<b>Other Hardware</b>		
Internal or External Installation Media drive, if applicable	<p>Any internal or external Installation Media compatible drive, if applicable for reading the installation media.</p>	

## Terminal Services Client Module

System Requirements	Recommended	Minimum
Number of Peak Users	Varies based on hardware; maximum is 20 users per server.	
Processor	64-bit multi-core processor	
	<ul style="list-style-type: none"> <li>Microsoft® Windows Server® 2012 R2</li> <li>Microsoft® Windows Server® 2016</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft® Windows Server® 2012 64-bit</li> </ul>
Supported Operating Systems	<p><b>Important:</b></p> <ul style="list-style-type: none"> <li>Microsoft® Small Business Server®, Windows Server® Essentials, and Windows® Server Foundation are not supported.</li> <li>Installing Workpaper Manager on a server that is also a Domain Controller is not supported.</li> <li>Installing Workpaper Manager on a server that is also the firm's Exchange Server is not supported.</li> <li>Linux® is supported for workpaper storage only.</li> </ul>	
Memory	8 GB RAM or more <b>Note:</b> Memory consumption varies based on usage. More memory may be necessary for improved performance.	
Microsoft® Office	<ul style="list-style-type: none"> <li>Microsoft® Office 365™ - Desktop version</li> <li>Microsoft® Office 2016, 32-bit and 64-bit</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Only Professional editions of Microsoft® Office are certified to work with Workpaper Manager.</li> <li>Microsoft® Office 365™ Online version is not supported.</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft® Office 2013, SP1, 32-bit and 64-bit</li> </ul>
Citrix®	<ul style="list-style-type: none"> <li>Citrix® XenApp® 7.7</li> <li>Citrix® XenApp® 7.12</li> </ul>	<ul style="list-style-type: none"> <li>Citrix® XenApp® 7.5</li> <li>Citrix® XenApp® 7.6</li> </ul>

## Terminal Services Database Module

System Requirements	Recommended	Minimum
Processor	64-bit multi-core processor	
Supported Operating Systems	<ul style="list-style-type: none"> <li>Microsoft® Windows Server® 2012 R2</li> <li>Microsoft® Windows Server® 2016</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft® Windows Server® 2012 64-bit</li> </ul>
	<p><b>Important:</b></p> <ul style="list-style-type: none"> <li>Microsoft® Small Business Server®, Windows Server® Essentials, and Windows Server® Foundation are not supported.</li> <li>Installing Workpaper Manager on a server that is also a Domain Controller is not supported.</li> <li>Installing Workpaper Manager on a server that is also the firm's Exchange Server is not supported.</li> <li>Linux® is supported for workpaper storage only.</li> </ul>	
Memory	4 GB RAM or more	
	<p><b>Note:</b> Memory consumption varies based on usage. More memory may be necessary for improved performance.</p>	
SQL	<ul style="list-style-type: none"> <li>Microsoft® SQL Server® 2014, SP1 (Standard, Enterprise, or Business Intelligence)</li> <li>Microsoft® SQL Server® 2016 SP1 (Standard or Enterprise)</li> </ul>	<ul style="list-style-type: none"> <li>Microsoft® SQL Server® 2012 Express</li> <li>Microsoft® SQL Server® 2012, SP2 (Standard or Enterprise)</li> </ul>

### Note Regarding Adobe® Reader® 11 and DC

CCH ProSystem fx Workpaper Manager 2017 supports Adobe® Reader® 11 and DC.

The "Protected Mode" must be turned off in Acrobat® Reader® to use Workpaper Manager functionality, such as: tickmark definitions, workpaper notes, and workpaper references. By default, "Protected Mode" is on. Workpaper Manager will detect this setting and prompt you to disable it.

- If you select **Yes**, Protected Mode is turned off and the workpaper is opened with Workpaper Manager functionality in place.
- If you select **No**, the workpaper opens in Protected Mode, and Workpaper Manager functionality is disabled.

To manually set Adobe® Acrobat® Reader® 11 or DC to always open with Protected Mode turned off, do the following:

1. Open Adobe® Acrobat® Reader® 11 or DC.
2. Select **Edit > Preferences > General**. (In Adobe® Acrobat® Reader® DC, select **Edit > Preferences > Security (Enhanced)**).
3. Uncheck the **Enable Protected Mode** at startup option.
4. Click **OK**.
5. Restart Adobe® Acrobat® Reader® 11 or DC.

## Installation Considerations

---

We recommend that you update your video card driver to the latest driver available and install Microsoft® Direct X 9.x or higher.

## Deployment Planning

Before installing CCH ProSystem *fx* Workpaper Manager, it is important to understand how to properly set up and maintain the environment. The *CCH ProSystem fx Workpaper Manager Deployment Planning Guide*, located in the Documents folder of the Installation Media, helps administrators and managers identify the key factors that influence the performance, reliability, and functionality of the CCH ProSystem *fx* Workpaper Manager application. The *Deployment Planning Guide* can help you make key decisions regarding your necessary hardware capacity, data distribution, Terminal Services, SQL servers®, and other issues.

## Compressed Drives and/or Partitions

CCH ProSystem *fx* Workpaper Manager does not support the storage of workpapers or databases on compressed drives, volumes, or partitions. CCH ProSystem *fx* Workpaper Manager uses SQL Server® databases, and Microsoft® has determined that having SQL Server® databases on compressed volumes may cause performance and database recovery issues. Additionally, storing Workpaper Manager databases and/or workpapers on compressed volumes may cause installation failures, synchronization issues and data loss.

For Workpaper Management and/or Admin Module/Workpaper Management installations, the CCH ProSystem *fx* Workpaper Manager 2017 installer will now automatically decompress any compressed files found in Admin\Data, WM\Data, or TB\Data folders at the beginning of the upgrade process.

 **Note:** The automatic decompression of compressed files only occurs if there is enough space on the drive to allow for decompression, which is typically a minimum of 100 MB.

Alternatively, any compressed files in a user-specified bin location at the time of upgrade, which are not in the locations previously mentioned, will also be checked. A log file will be written to X:\PfxEngagement\Common\PfxEngCompressedFiles.log (where X represents the drive where Workpaper Manager is installed) listing the name and size of any compressed files found. For all other installs, such as TSDatabase or stand-alone Admin, a log will be written to PfxEngCompressedFiles.log naming any compressed files found. Due to potential size and time constraints, these files will need to be manually decompressed using the CCH ProSystem *fx* Workpaper Manager *Detect Compressed Database Utility*.

In addition, the CCH ProSystem *fx* Workpaper Manager, SQL 2016 Instance Installer, SQL 2014 Instance Installer and the CCH ProSystem *fx* Workpaper Manager SQL 2012 Instance Installer will perform the same decompression process described above when upgrading.

For new installations of Workpaper Manager, please refer to the CCH ProSystem *fx* Workpaper Manager *Detect Compressed Database Utility* to identify compressed database files prior to installation. Additionally the utility will detect a Microsoft® SQL Server® start-up parameter that will prevent the SQL upgrade. This utility is located in the Utilities folder on the CCH ProSystem *fx* Workpaper Manager Installation Media.

For more information on compressed drives, please see the following Microsoft® Knowledge Base article ID 231347:

<https://support.microsoft.com/en-us/kb/231347>.

## Technical Considerations

For in-depth networking instructions and technical considerations, please see *Appendix E: Technical Considerations* on page 69.

These appendices cover the following network issues:

- Windows® and Linux® servers
- LAN, WAN, and VPN topologies
- Port configuration
- Information on SQL services and memory usage
- Communication across networks and subnets
- Static versus dynamic IP addresses on office servers

These appendices also address the following topics in detail:

- CCH ProSystem *fx* Workpaper Manager allows users to store their workpapers on a different server than where the binder database is located (Office Server). In these cases, the CCH ProSystem *fx* Workpaper Manager Synchronization service needs to be configured to run under an account with rights to the location where the workpapers are being stored. The workpapers can reside on a non-Windows® server.

For more information, see *Appendix D: Installing Workpaper Manager with Active Directory®* on page 67.

- Time synchronization plays an important part in CCH ProSystem *fx* Workpaper Manager. All servers and workstations running Workpaper Manager (in the office and in the field) should

maintain time clock synchronization to ensure that you do not lose data and to ensure that the latest changes to data and server are properly synchronized. For more information, see *Time Synchronization* on page 74.

- Changing workstation or server names is not supported after CCH ProSystem *fx* Workpaper Manager has been installed. This is due to the installation of SQL. See *Appendix E: Technical Considerations* on page 69.

For additional information or for the latest update on any of these items, please contact CCH ProSystem *fx* Technical Support.

## CCH ProSystem *fx* Workpaper Manager Administrator Considerations

The CCH ProSystem *fx* Workpaper Manager Administrator module should be installed and configured on a Windows server<sup>®</sup> or a dedicated computer with a Windows<sup>®</sup> operating system, as noted above. If you plan to maintain multiple office servers, the Administrator module should be installed and configured on a Windows server<sup>®</sup> or a dedicated computer for each office.

Administrator must be installed to a location For more information on office servers, please refer to Chapter 3, Workpaper Manager Administrator, in the *User Guide*.

Administrator must be installed to a location accessible by all computers running CCH ProSystem *fx* Workpaper Manager Workpaper Management. Administrator installation must be performed at the console of the Windows server<sup>®</sup> or the dedicated computer. It cannot be installed by pushing the install from another computer to the Windows server<sup>®</sup> or dedicated computer.

The *CCH ProSystem fx Workpaper Manager Deployment Planning Guide*, located in the Documents folder of the Installation Media, helps administrators and managers identify the key factors that influence the performance, reliability, and functionality of the CCH ProSystem *fx* Workpaper Manager application.

The Administrator Workstation setup allows you to remotely access the Administrator module. The Administrator Workstation can be installed to any workstation that needs to remotely access the Administrator module.

### Notes:

- Workpaper Manager Administrator should **not** be installed on every computer in your firm.
- Administrative rights are required to install the application to the local machine.

 **Important:** Installing Workpaper Manager Administrator on a domain controller, Microsoft<sup>®</sup> Small Business Server<sup>®</sup>, Windows Server<sup>®</sup> Essentials, Windows Server<sup>®</sup> Foundation, or Exchange Server are not supported.

## Pre-Installation Checklist

Before beginning the installation, verify that all of the following tasks are completed:

- If you are upgrading to CCH ProSystem *fx* Workpaper Manager 2017 from a prior version, do the following:
  - **Back up the central databases.** Perform a full back up of all central admin and bin databases prior to upgrading. For detailed instructions on using the backup restore utility, see *Appendix F: Database Backup and Restore* on page 77.
  - **Back up the workpapers.** Back up all workpapers before upgrading. To ensure that this backup contains the latest versions of all files, users should synchronize all binders to the Central File Room prior to the backup.



**Note:** The Database Backup and Restore utility does not back-up the workpapers. You will need to use your own, third party, utility to back up your workpapers.

- **Back up templates.** Back up all centrally located templates prior to upgrading to allow for a full rollback if necessary.
- **Upgrade the main office server.** We recommend that you upgrade the main office server first, then upgrade the workstations in order of priority to begin using the software.



**Important:** All machines running Workpaper Manager in a network environment must be on the same version of Workpaper Manager within the same office.

- Close Microsoft® Word, Excel®, and Outlook®.
- We strongly recommend that you close any additional programs.
- Disable virus-checking programs.
- If you are installing on a computer that currently has another application using SQL, stop that instance.



**Note:** Do not stop instances of SQL Server® (PROFXENGAGEMENT).

- If the computer is already running Microsoft® SQL Server® 2012, 2014, or 2016, Enterprise or Standard Edition, we recommend that you continue to use that version and configure a named instance of SQL Server® for CCH ProSystem *fx* Workpaper Manager prior to installation. This allows CCH ProSystem *fx* Workpaper Manager to run optimally. If an Engagement SQL Instance already exists on the computer, you do not need to install SQL again.
- If the computer is not already running Microsoft® SQL Server®, we recommend installing Microsoft® SQL Server® 2012, 2014, or SQL 2016 Enterprise, Standard Edition or Express editions of SQL Server®.



**Notes:**

- If you need to install the Standard or Enterprise Editions of SQL Server® see *Appendix A: Installing SQL Server® 2012* on page 28, *Appendix B: Installing SQL Server® 2014* on page 42, or *Appendix C: Installing SQL Server® 2016* on page 54.
- SQL Express 2012, 2014, or 2016 installers are available on the Engagement Installation Media. Choose only one of the installers. You do not need to install both.

- If SQL Agent is currently running on the system for any purpose, verify if “Local System Account” is used as its Startup Account. If it is not, then follow the *Pre-* and *Post-Installation Steps* in the SQL Agent chapter of the “Deployment Guide.”
- Ensure that the operating system, Microsoft® Internet Explorer®, and Microsoft® Office are all installed with the required service packs. See *Workpaper Manager 2017 System Requirements* on page 2 for details.
- Ensure that all Windows® updates have been installed.

## Installation Instructions

---

This section provides standard procedures for installing or upgrading the Workpaper Manager Administrator module and Workpaper Management module.

 **Warning!** Publishing installation Group Policy Objects through Active Directory® is not recommended due to possible conflicts among versions (for example, Canadian CCH Engagement Administrator and United States Engagement Workpaper Management on the same workstation).

### Installing Workpaper Manager for the First Time

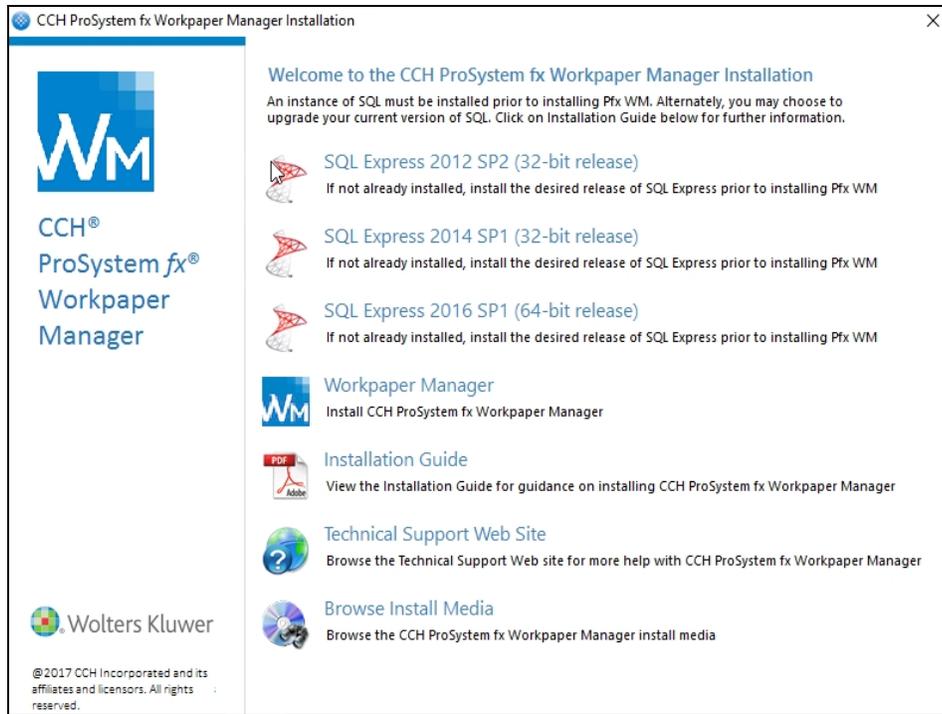
To install CCH ProSystem *fx* Workpaper Manager for the first time, do the following:

1. Complete all tasks in *Pre-Installation Checklist* on the previous page.



**Notes:** Administrative rights are required to install the application to the local machine.

2. If you are installing directly from the downloaded install files, then please follow the instructions provided on that Web site. Otherwise, insert the Workpaper Manager installation media created. If autorun is enabled, the *CCH ProSystem fx Workpaper Manager Installation* screen displays. If autorun is not enabled, select **Start > Run**. In the *Open* field, enter the path to the file **X:\launchscreen.exe** and click **OK**.

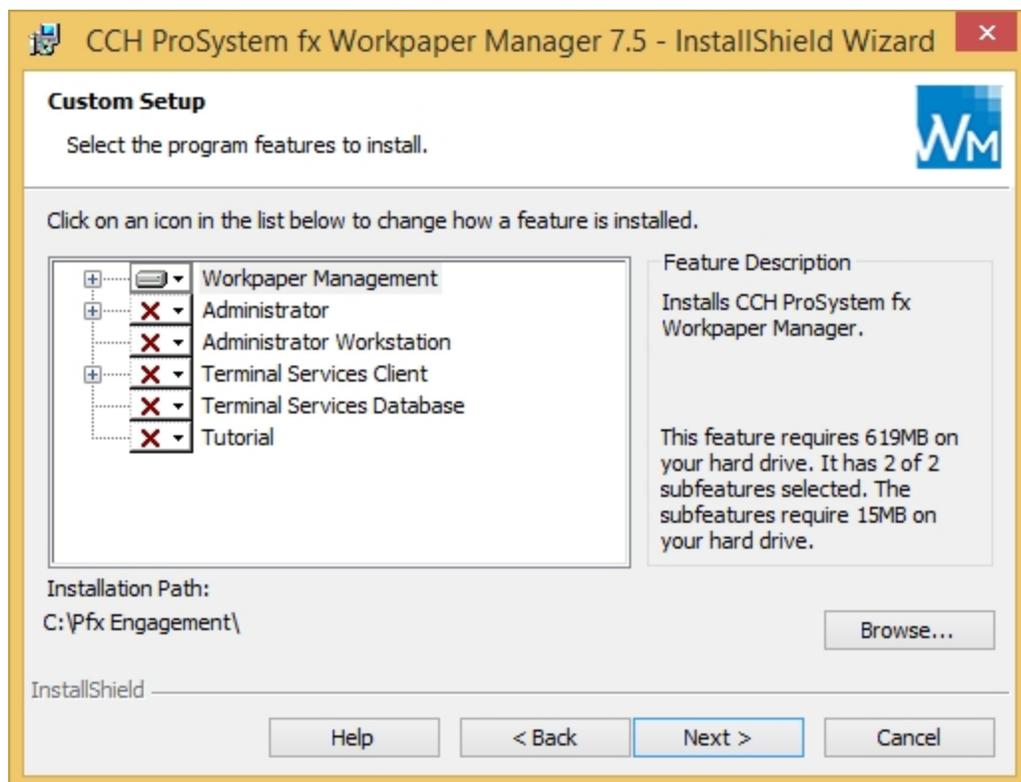


The following options are available from the launch screen:

- **SQL Express 2012 SP2**. Installs the Workpaper Manager SQL database instance using SQL Express 2012. This option should be selected only if an Workpaper Manager SQL database instance does not already exist and you want to install the 2012 release of SQL Express.
- **SQL Express 2014 SP1**. Installs the Workpaper Manager SQL database instance using SQL Express 2014. This option should be selected only if an Workpaper Manager SQL database instance does not already exist and you want to install the 2014 release of SQL Express.
- **SQL Express 2016**. Installs the Workpaper Manager SQL database instance using SQL Express 2016. This option should be selected only if an Workpaper Manager SQL database instance does not already exist and you want to install the 2016 release of SQL Express. To upgrade from a 32-bit version of a SQL instance refer to [Knowledge Base](#) article.
- **EngagementWorkpaper Manager**. Installs Workpaper Manager.
- **Installation Guide**. Opens the *CCH ProSystem fx Workpaper Manager Installation Guide* PDF.
- **Technical Support Web Site**. Launches the CCH ProSystem fx Workpaper Manager Support Web site.
- **Browse Install Media**. Displays the contents of the install media in Windows® Explorer.

 **Notes:**

- When launching the installation from the contents of the install media, it is imperative that CSWMSSetup.exe is selected with Windows® 7, Windows® 8.1, and Server 2012 or higher. CSWMSSetup.exe provides elevated privileges for installations on these operating systems.
  - You need Adobe® Reader® to view the *Installation Guide* or *Release Notes*, and the *CCH ProSystem fx Workpaper Manager User Guide*. Adobe® Reader® 11 and DC is included on the Workpaper Manager Installation Media.
  - The *Install CCH ProSystem fx Workpaper Manager* launch screen uses an .ini file to customize which buttons are displayed. To remove a button from the launch screen, edit the "product.ini" file, which is located at the root of the installation disc. Remove any section from the product.ini file to remove the corresponding button from the launch screen.
3. Click **Install Workpaper Manager**. The Welcome screen displays.
  4. Click **Next**. The *License Agreement* dialog displays.
  5. Read the license agreement. If you agree to the terms, select **I accept the terms in the license agreement** and click **Next**.
  6. Click **Next**. The *Custom Setup* page displays.



7. Select the module or modules to install. Click the appropriate icon and select **This feature will be installed on local hard drive** to install the module or **This feature, and all subfeatures**,

**will be installed on local hard drive** to install the module and all subfeatures (for example, Workpaper Manager CD Image for Administrator, or Templates and Sample Binder for Workpaper Management).

- **Workpaper Management.** Workpaper Management should be installed on computers that will be accessed by Workpaper Manager staff members.



**Note:** If you would like to change the installation path, click the Browse button and navigate to the desired location.

- **Administrator.** The Administrator module should be installed on a dedicated computer that is designated as the main office server. Computers with the Workpaper Management module installed need access to this main office server computer.



**Notes:**

- If you plan to create a secondary office server or servers, install the CCH ProSystem *fx* Workpaper Manager Administrator module on a separate dedicated computer. When more than one office server exists, workstations with Workpaper Management installed do not necessarily need a network connection to both office servers. Some can connect to the main office server while others connect to a secondary office server.
- It is not mandatory to have a network connection between the main and secondary office servers. Data can be passed between the two using *Create and Receive Admin Packages*. For more information, see the topics *Creating an Admin Package* and *Receiving an Admin Package* in Chapter 3 of the *User Guide*.

- **Administrator Workstation.** The Administrator Workstation setup allows you to access the Administrator module remotely.

8. If you selected *Administrator* in step 11 (with or without Workpaper Management) the *Administrator Bin Database Path* dialog displays. The system creates the database in the default folder on your local computer unless you click **Browse** and specify a different location.
9. Click **Next**. The *Ready to Install* dialog displays.



**Notes:**

- If you attempt to install conflicting applications, such as Administrator and Administrator Workstation, InstallShield displays a conflict message specifying the conflicting applications. Click **Back** to make the necessary changes.
- If your system does not meet the requirements for the application you are installing, InstallShield displays a message listing the missing components. Click **Cancel** to install the necessary components. Click **Back** to install a different application. For detailed information about the new bin structure of the Workpaper Manager database, see *Managing Bins, Workpaper Manager Administrator*, in the *Workpaper Manager User Guide*.

10. Click **Install**. InstallShield displays the progress screen as the necessary programs and features are installed.
11. If you are installing Administrator, read the information on the *Backup Information* dialog and select **I have read the above warning**, then click **Next**. The *InstallShield Wizard Completed* dialog displays.
12. Click **Finish**, then complete any applicable tasks in the *Post-Installation Checklist* on the facing page.

## Upgrading an Existing Version of Workpaper Manager

To upgrade a previous Workpaper Manager version, do the following:

 **Note:** Upgrades are only supported for the two previous versions of Workpaper Manager.

1. Complete all tasks in the *Pre-Installation Checklist* on page 14.
2. If you are installing directly from the downloaded install files, then please follow the instructions provided on that Web site. Otherwise, insert the Workpaper Manager installation media created.
3. If Autorun is enabled, the *Welcome to the InstallShield Wizard for CCH ProSystem fx Workpaper Manager* screen displays.

If Autorun is not enabled, the *Run* dialog displays. In the *Open* field, enter the path to the file X:\ProSystem fx Engagement.exe and click **OK**. The screen displays.

 **Notes:**

- When upgrading, you do not need to install SQL Server<sup>®</sup> because Workpaper Manager is already installed and the Workpaper Manager SQL Database instance should already exist.
  - The *Welcome to the InstallShield Wizard for CCH ProSystem fx Workpaper Manager* launch screen uses an .ini file to customize which buttons are displayed. To remove a button from the launch screen, edit the "product.ini" file, which is located at the root of the installation disc. Remove any section from the product.ini file to remove the corresponding button from the launch screen.
4. Click **Install Workpaper Manager** to upgrade the currently installed features for the Workpaper Manager installation. The *Welcome* screen displays.
  5. Click **Next**. The *License Agreement* dialog displays.
  6. Read the license agreement. If you agree to the terms, select **I accept the terms in the license agreement** and click **Next**.
  7. Click **Next**. The *Upgrade to CCH ProSystem fx Workpaper Manager 2017* page displays.
  8. If you have read the warning message and have created a backup then select that option and click **Next**. The *Ready to Install* dialog displays.

 **Note:** If your system does not meet the requirements for the application you are installing, InstallShield displays a message listing the missing components. Click Cancel to install the necessary components. Click **Back** to install a different application. For detailed information about the new bin structure of the Workpaper Manager database, see Chapter 3 of the *User Guide*.

9. Click **Install**. InstallShield displays the *Progress* screen as the necessary programs and features are upgraded.
10. If Administrator is being upgraded, read the information on the *Backup Information* dialog, select **I have read the above warning**, and then click **Next**. The *InstallShield Wizard Completed* dialog displays.
11. Click **Finish**, then complete any applicable tasks in the *Post-Installation Checklist* below.

## Post-Installation Checklist

After completing the installation, you should perform the following tasks, as applicable:

- If you have upgraded to CCH ProSystem *fx* Workpaper Manager 2017 from a prior version, perform a full back up of all central admin and bin databases after installation.
- Verify that all administrative users have full access to the Admin Share folder on the office server. This folder, which is created during the installation, is shared by default, but the network administrator needs to ensure that all Workpaper Manager administrative users have full rights to that location.
- The installation process sets the Workpaper Manager folder permissions automatically. These rights are needed for Workpaper Manager to function optimally. The installation gives the “Users” group all rights except Full Control. These rights are inherited by all child objects so that all folders and subfolders within Workpaper Manager receive these same rights.
- If you have never launched Microsoft® Office Excel®, Word or Outlook® on a machine with a new install of Workpaper Manager, then you must launch one of these Microsoft® Office products **prior** to launching Workpaper Manager. This allows Workpaper Manager to successfully install the add ins needed for working with Microsoft® Office.

## Altering a Current Install of Workpaper Manager

---

CCH ProSystem *fx* Workpaper Manager Program Maintenance allows you to modify, repair, or remove the current installation.

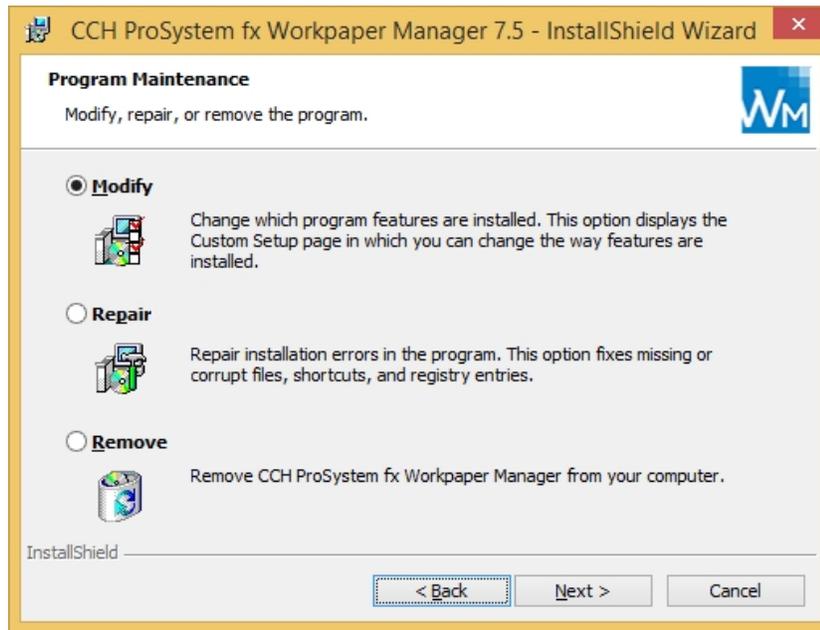
### Modifying a Current Install

To add new program features or remove currently installed features, do the following:

1. Close all programs on your computer.
2. Select **Programs and Features** (or **Add or Remove Programs**) from your computer's Control Panel.

 **Note:** Some modifications will require elevated privileges. For best results, use the executable on the Installation Media or CCH ProSystem *fx* Workpaper Manager image.

3. Select **CCH ProSystem *fx* Workpaper Manager** from the list and click **Change** to open the *Welcome* dialog.
4. Click **Next** to display the *Program Maintenance* dialog.



5. Select **Modify** and then click **Next**. The *Custom Setup* dialog displays.
6. Select applications to install and deselect applications to remove. Click the **plus sign (+)**, where available, to select individual options to install or remove. The *Custom Setup* dialog displays the amount of space required for installation.
7. Click **Next** to display the *Ready to Modify* dialog.
8. Click **Install** to begin the update process. The *InstallShield Wizard Completed* dialog displays when the process is finished.
9. Click **Finish** to exit the installation.

## Repairing a Current Install

To repair program features from a previous installation, do the following:

1. Close all programs on your computer.
2. Select **Add or Remove Programs** or **Programs and Features** from your computer's Control Panel.

 **Note:** Some repairs will require elevated privileges. For best results, use the executable on the Installation Media or CCH ProSystem *fx* Workpaper Manager image.

3. Select **CCH ProSystem fx Workpaper Manager** from the list and click **Change** to open the *Welcome* dialog.
4. Click **Next**. The *Program Maintenance* dialog displays.
5. Select **Repair** and then click **Next**. The *Ready to Repair* dialog displays.
6. Click **Install**. The *Installing CCH ProSystem fx Workpaper Manager* status bar displays while InstallShield repairs the installation(s). Once the repair process is finished, the *InstallShield Wizard Completed* dialog displays.
7. Click **Finish**.

## Removing CCH ProSystem fx Workpaper Manager

To remove all installed features, do the following:

1. Close all programs on your computer.
2. Select **Add or Remove Programs** or **Programs and Features** from your computer's Control Panel.
3. Select **CCH ProSystem fx Workpaper Manager** from the list and click **Remove** to display the *Welcome* dialog.
4. Click **Yes** on the confirmation dialog. Windows® removes all CCH ProSystem fx Workpaper Manager applications.

## Terminal Services Installation

---

The installation of Workpaper Manager can vary based on the Terminal Services and Citrix® software setup. For this reason, we strongly suggest that you consult with your network administrator prior to installing Workpaper Manager.

For detailed information on setting up Terminal Services, see the *CCH ProSystem fx Workpaper Manager Deployment Planning Guide* in the Documents folder of the Installation Media. We also advise contacting Technical Support prior to installation to address any questions you may encounter with the installation.

### **Important:**

- The Terminal Services Database and Terminal Services Client should not be installed on the same computer.
- The following instructions outline the preferred steps for installing CCH ProSystem fx Workpaper Manager Terminal Services Client; however, your configuration may require additional or alternate steps. For additional assistance, please contact Technical Support.
- Installing Terminal Services on a domain controller, Microsoft® Small Business Server®, Windows Server® Essentials, Windows Server® Foundation, or Exchange Server® are not supported.

Before beginning, install CCH ProSystem fx Workpaper Manager Administrator. Refer to the *Installation Instructions* on page 15 for instructions.

The following section contains instructions for installing the CCH ProSystem *fx* Workpaper Manager Terminal Services Client

(Workpaper Management for Terminal Services), CCH ProSystem *fx* Workpaper Manager Terminal Services Database, and CCH ProSystem *fx* Workpaper Manager Administrator Workstation.

## Terminal Services Database Installation

This section provides installation instructions for CCH ProSystem *fx* Workpaper Manager Terminal Services Database on a Windows® Terminal Services enabled server.

Keep the following in mind when installing Terminal Services Database:

- This location should be a dedicated Windows® server with enough space to store data being created in the Terminal Services Client module.
- The recommended location is the main office server where the CCH ProSystem *fx* Workpaper Manager Administrator is installed. The Terminal Services Database installation must be performed at the server console of the computer it is to reside on.
- For robust environments (for example, more than 75 users), SQL Standard Edition or SQL Enterprise Edition are recommended. For more information on choosing a SQL server®, see the *CCH ProSystem fx Workpaper Manager Deployment Planning Guide*, located in the Documents folder of your Installation Media.

To install Terminal Services Database, do the following:

1. Complete all tasks in the *Pre-Installation Checklist* on page 14.
2. Insert the CCH ProSystem *fx* Workpaper Manager Installation Media. If you are installing directly from the downloaded install files, then please follow the instructions provided on that Web site.
3. Open Control Panel and select **Install Application on Remote Desktop Server** when on Server 2012 or Server 2016.
4. **Browse** to the Installation Media and then click **Next**. The *Install Program from Floppy Disk or CD-ROM* dialog displays.
5. Click **Next**. The *Run Installation Program* dialog displays.
6. If a Workpaper Manager SQL Instance is already installed, skip to step 15.

If a Workpaper Manager SQL Instance is not already installed, do one of the following:

- Install Microsoft® SQL Server® Standard or Enterprise edition as explained in see *Appendix A: Installing SQL Server® 2012* on page 28 , *Appendix B: Installing SQL Server® 2014* on page 42, or *Appendix C: Installing SQL Server® 2016* on page 54.
- Install Microsoft® SQL Express® 2012, Microsoft® SQL Express® 2014, or Microsoft® SQL Express® 2016 which are included on the Workpaper Manager installation media. To install SQL Express® 2012 , 2014, or 2016 continue to step 8.

7. Click **Browse** and locate either the **ProSystem fx SQL 2012 Instance Installer.exe**, **ProSystem fx SQL 2014 Instance Installer.exe**, or **ProSystem fx SQL 2016 Instance Installer.exe**.



**Note:** Choose only one of the installers to install: ProSystem fx SQL 2012 , ProSystem fx SQL 2014 or ProSystem fx SQL 2016.

8. Click **Finish**. The SQL 2012, SQL 2014, or SQL 2016 Instance Installer wizard displays.
9. Click **Next**. The *Ready to Install the Program* page displays.
10. Click **Install**. Several status screens display as the SQL Instance is installed.
11. Click **Finish**.
12. Click **CD or Floppy**, and then click **Next**. The *Install Program from Floppy Disk or CD-ROM* dialog displays.
13. Click **Next**. The *Run Installation Program* dialog displays.
14. Click **Browse** and locate the *PfxEngSetup.exe* file.
15. Click **Finish**. The *Welcome* dialog displays.



**Note:** You need Adobe® Reader® to view the *Installation Guide* or *Release Notes*, and the *CCH ProSystem fx Workpaper Manager User Guide*. Adobe® Reader® 11 and DC is included on the Workpaper Manager Installation Media.

16. Click **Next**. The *License Agreement* dialog displays.
17. Read the license agreement. If you agree to the terms, select **I accept the terms in the license agreement** and click **Next**.
18. Click **Next**. The *Custom Setup* dialog displays.
19. Select **Terminal Services Database**. Click the **plus sign (+)** to select or deselect subfeatures to install, or choose *This feature, and all subfeatures, will be installed on local hard drive*. Deselect Workpaper Management, which is selected by default.
20. Click **Next**. The *Ready to Install* screen displays.



**Notes:**

- If you attempt to install conflicting applications, InstallShield displays a message specifying the conflicting applications. Click **Back** to make the necessary changes.
  - If your system does not meet the requirements for the application you are installing, InstallShield displays the *Requirements* dialog, listing the necessary components. Click **Cancel** to install the necessary components, or click **Back** to change the application to install.
21. Click **Install**. The *Installing CCH ProSystem fx Workpaper Manager* status bar displays as InstallShield completes the installation. The *InstallShield Wizard Completed* dialog displays.
  22. Click **Finish**, then complete any applicable tasks in the *Post-Installation Checklist* on page 20.

## Terminal Services Client Installation

This section provides installation instructions for CCH ProSystem *fx* Workpaper Manager Terminal Services Client on a Windows® Terminal Services enabled server.

1. Complete all tasks in the *Pre-Installation Checklist* on page 14.
2. Determine that no one is accessing the Terminal Services server.
3. Insert the CCH ProSystem *fx* Workpaper Manager Installation Media. If you are installing directly from the downloaded install files, then please follow the instructions provided on that Web site.
4. Open Control Panel and select **Install Application on Remote Desktop Server** when on Server 2012 or Server 2016.
5. **Browse** to the Installation Media, and then click **Next**. The *Install Program from Floppy Disk or CD-ROM* dialog displays.
6. Click **Next**. The *Run Installation Program* dialog displays.
7. Click **Browse** and locate the *PfxEngSetup.exe* file.
8. Click **Next**. The *Welcome* dialog displays.

 **Note:** You need Adobe® Reader® to view the *Installation Guide* or *Release Notes*, and the *CCH ProSystem fx Workpaper Manager User Guide*. Adobe® Reader® 11 and DC is included on the Workpaper Manager Installation Media.

9. Click **Next**. The *License Agreement* dialog displays.
10. Read the license agreement. If you agree to the terms, select **I accept the terms in the license agreement** and click **Next**.
11. Click **Next**. The *Custom Setup* dialog displays.
12. Select the program feature to install: Terminal Services Client only or Terminal Services Client with Administrator Workstation. Click the **plus sign (+)** to select or deselect subfeatures to install, or choose *This feature, and all subfeatures, will be installed on local hard drive*. Deselect Workpaper Management, which is selected by default.
13. Click **Next** to display the *Terminal Services Database Location* dialog. Enter the name of the server where the database is installed.
14. Click **Next**. The *Ready to Install* screen displays.

 **Notes:**

- If you attempt to install conflicting applications, InstallShield displays a message specifying the conflicting applications. Click **Back** to make the necessary changes.
- If your system does not meet the requirements for the application you are installing, InstallShield displays the *Requirements* dialog, listing the necessary components. Click **Cancel** to install the necessary components, or click **Back** to change the application to install.

15. Click **Install**. The *Installing CCH ProSystem fx Workpaper Manager* status bar displays as InstallShield completes the installation. The *InstallShield Wizard Completed* dialog displays.
16. Click **Finish**, then complete any applicable tasks in the *Post-Installation Checklist* on page 20.

## Using the CCH ProSystem fx Workpaper Manager Administrator



From the Windows® Start menu, select the program group where you installed the CCH ProSystem fx Workpaper Manager Administrator. Select **CCH ProSystem fx Workpaper Manager Administrator**, or double-click the **Administrator** icon on your desktop. The *CCH ProSystem fx Workpaper Manager Admin Login* dialog displays.

### Initial Login to the Workpaper Manager Administrator

Only staff assigned to the Administrator Staff Group can log in to the Administrator. The program provides one default staff member in the Administrator Staff Group. You can modify the password and staff information for the default user, but you cannot change the Login Name or delete this staff member. There is no limit to the number of licensed staff you can assign as administrators.

 **Note:** If you want other workstations to access the Administrator module, install Administrator Workstation to those workstations. See *Installation Instructions* on page 15.

The first time you log in, do the following:

1. Start Workpaper Manager Administrator by doing one of the following:
  - Double-click the Workpaper Manager Admin icon on your desktop.
  - Select **Start > Programs > CCH ProSystem fx Workpaper Manager > CCH ProSystem fx Workpaper Manager Admin**.

The *Workpaper Manager Admin Login* displays.

2. In the *Login Name* field, enter **ADMIN**. Leave the *Password* field blank.
3. Click **OK**. The CCH ProSystem fx Workpaper Manager Administrator program detects that a main office server has not been set up and displays a message that the computer must be configured as an office server before you can log in.
4. Click **Yes**. The *Provide Office Server Information* dialog displays.
5. Enter a label of up to 32 characters for the main office server in the *Label* field. The label is required and is used as the office server's name.
6. The *Server name* field defaults to the name of the computer to which you are logged in.
7. Enter a description for the server of up to 60 characters in the *Description* field. The description is optional.
8. Click **Next**. The *Determine the office server designation* dialog displays.
9. Select **Main office server** to establish this as the main office server.
10. If the Firm has more than one office server and this office server does not have a physical connection with the other office server(s), check the **Disable Admin Synchronization** check box.

11. Click **OK**. The *Firm Properties* dialog displays.
12. Enter the firm information and click **Next**. The *Configure Office Server Summary Report* displays.
13. Do any of the following:
  - Click **Print** to print the summary report.
  - Click **Save As** to save the report as an HTML file.
  - Click **Back** to make changes to your settings.
  - Click **Cancel** to discard your work and exit the *Configure Office Server Wizard*.
  - Click **Finish** to save your settings and open Workpaper Manager Administrator.

Once you are in the program, you can change the administrator's password and add more staff to the Admin group, if needed. See *Adding New Staff Members* in Chapter 3 of the *User Guide*.



**Important:** The CCH ProSystem *fx* Workpaper Manager Backup and Restore Utility should be used on a nightly basis. See *Appendix F: Database Backup and Restore* on page 77.



**Note:** For instructions on creating a secondary server, refer to the section *Setting up the Administrator Environment* in Chapter 3 of the *User Guide*.

### Installing SQL Server® 2012

---

#### Creating a New SQL 2012 32-bit or 64-bit Instance for Workpaper Manager

This section provides step-by-step instructions for creating a new SQL 2012 32-bit or 64-bit instance for CCH ProSystem fx Workpaper Manager.

If you need to create a new instance for SQL 2012 Express 64-bit, please see *Creating a New SQL 2012 Express 64-bit Instance for Workpaper Manager* on page 40.

 **Important:** Configure the SQL Service® to use "LocalSystem" (or NT AUTHORITY\SYSTEM) as the start-up account and the SQL Browser to use "Local Service" as the start-up account.

#### Upgrading SQL 2012

SQL Server® 2012 supports an upgrade from the following versions of SQL Server®:

- SQL Server® 2005 SP4 (9.00.5000.00) or later
- SQL Server® 2008 SP2 (10.00.4000.00) or later
- SQL Server® 2008 R2 SP1 (10.50.2500.0) or later

 **Note:** To find what version of SQL is currently installed, browse the Registry and go to the key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Microsoft SQLServer\PROFX ENGAGEMENT\MSSQLServer\CurrentVersion.

## Recommended Operating Systems

---

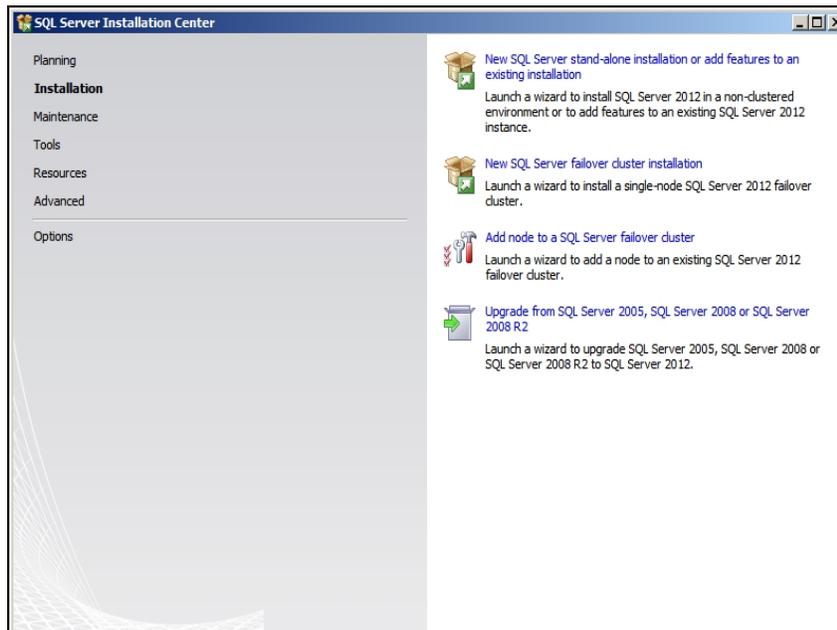
We recommend using Microsoft® Windows Server® 2012 (64-bit) with SQL Server® 2012.

## Creating the SQL Server® 2012 Instance

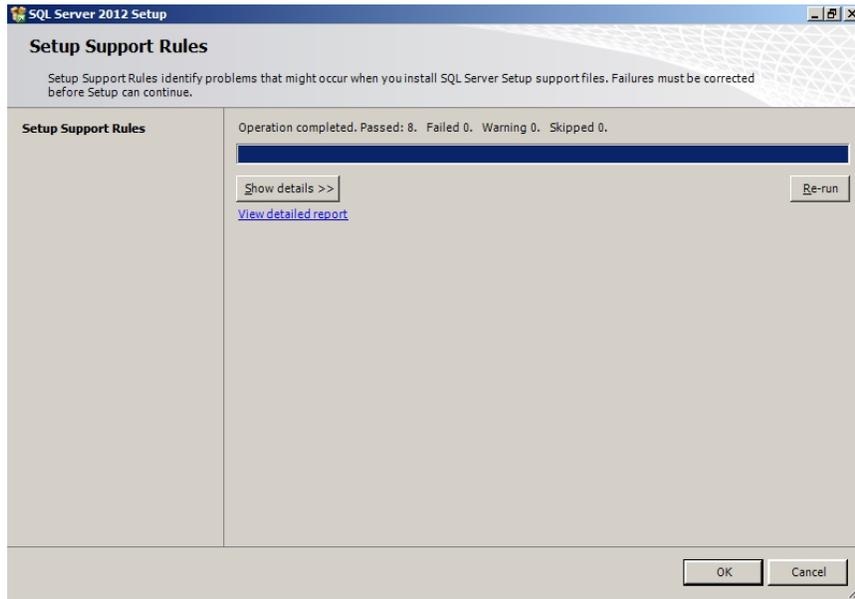
---

 **Note:** Please follow each step carefully to ensure that the SQL instance is properly created with all required settings.

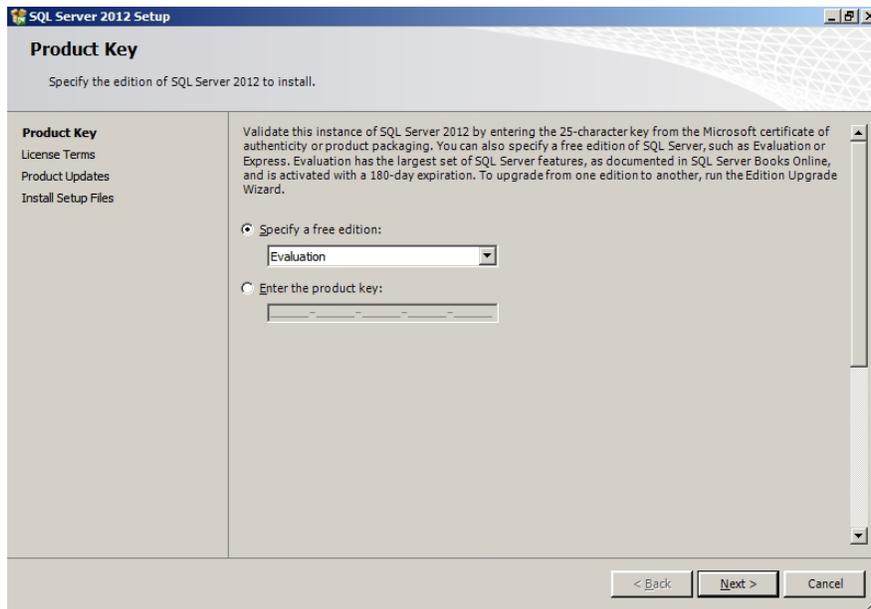
1. Insert the SQL Server® 2012 Installation Media.
2. Click **Installation**.



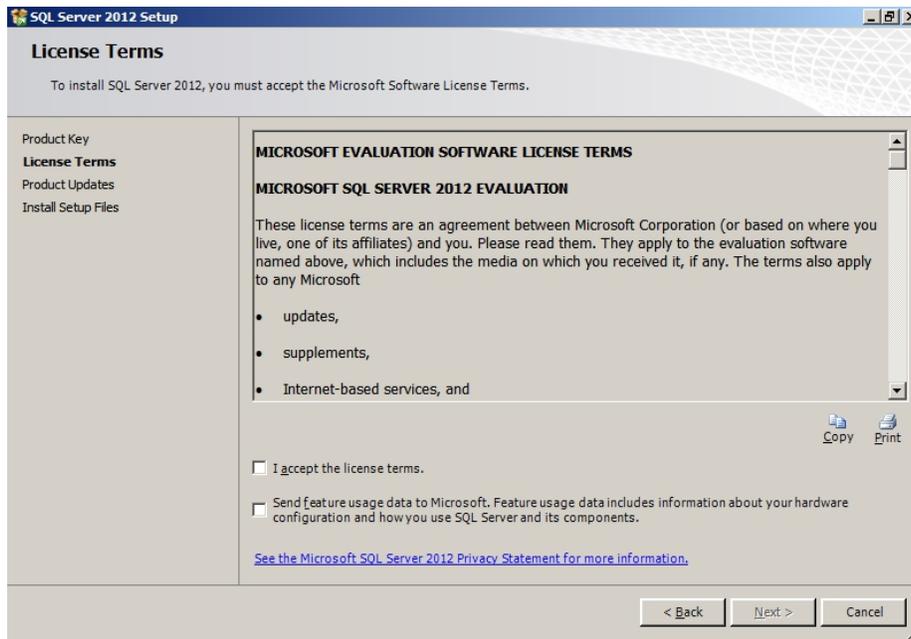
3. Select **New SQL Server stand-alone installation or add features to an existing installation**. The *Setup Support Rules* screen displays.



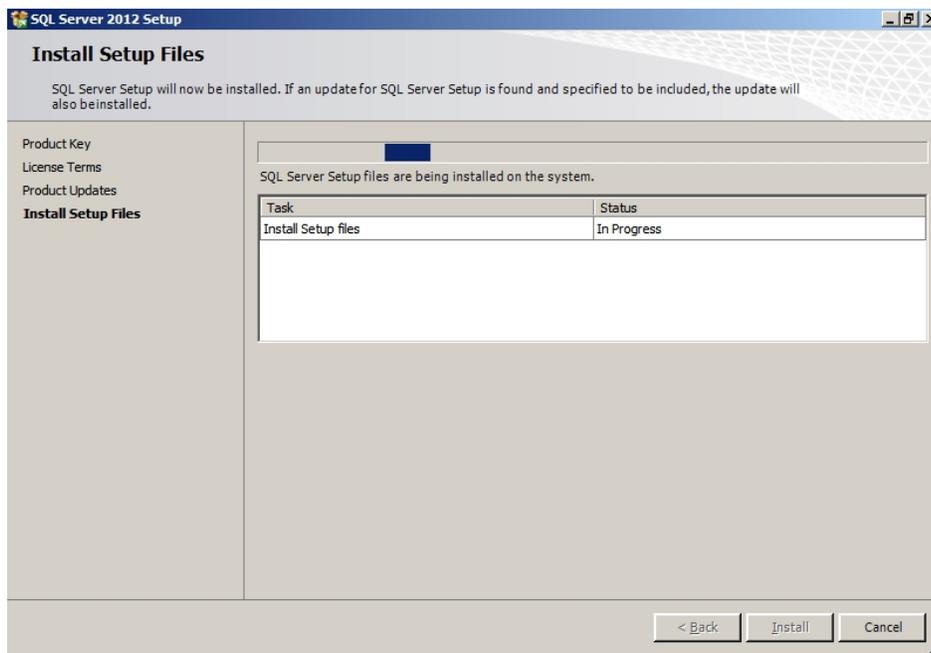
4. Click **OK** to proceed with the installation. The *Product Key* screen displays.



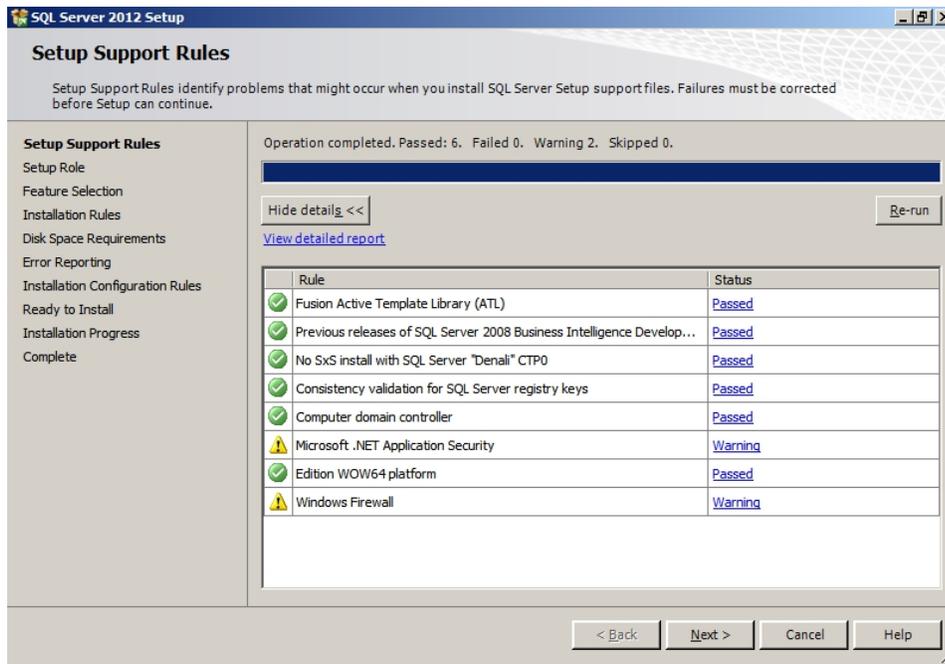
5. Enter the SQL Server® product key and click **Next**. The *License Terms* screen displays.



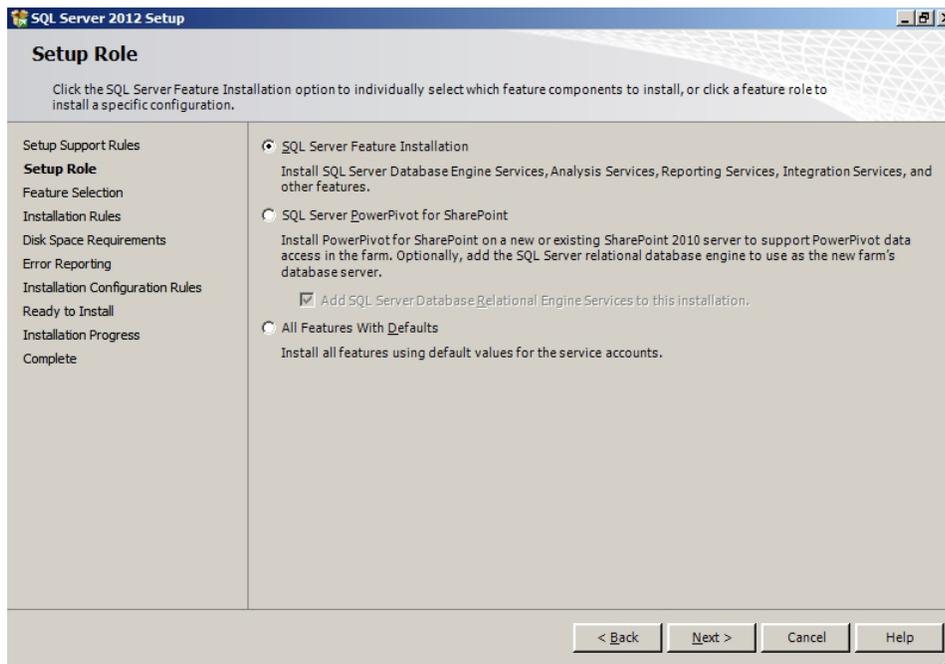
6. Click **I accept the license terms** and click **Next**. The *Install Setup Files* screen displays.



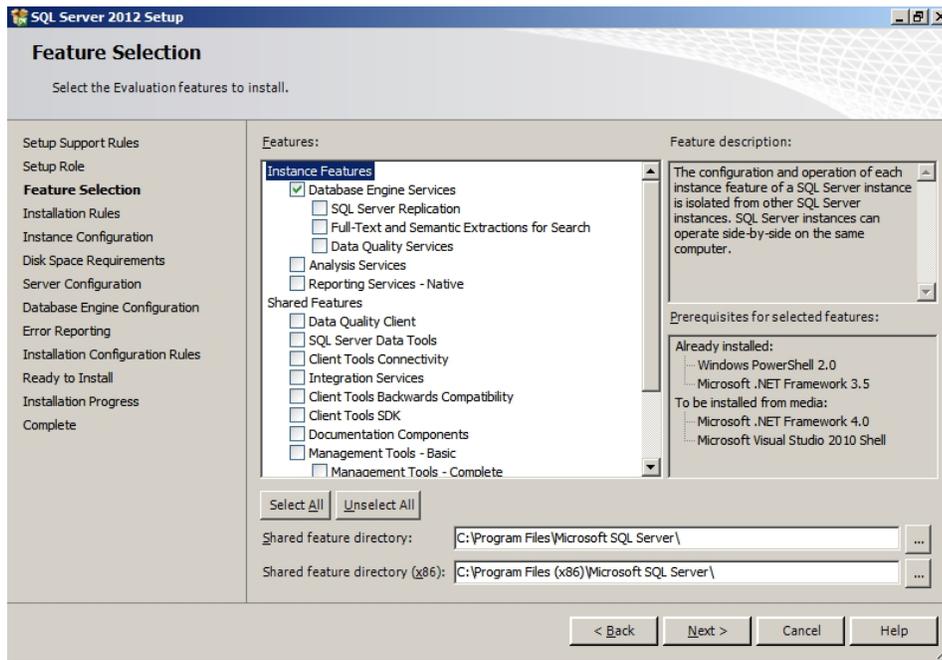
7. Click **Next** on the *Setup Support Rules* screen.



8. Select **SQL Server Feature Installation** on the *Setup Role* screen.



9. Select **Database Engine Services and Management Tools** on the *Feature Selection* screen.

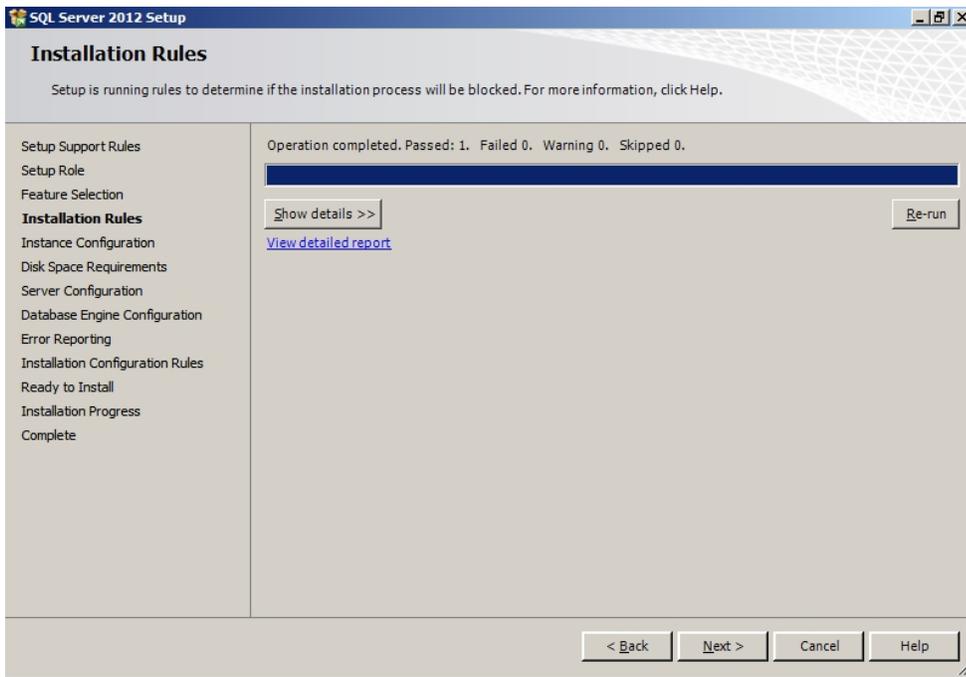


10. Click **Next** to continue.

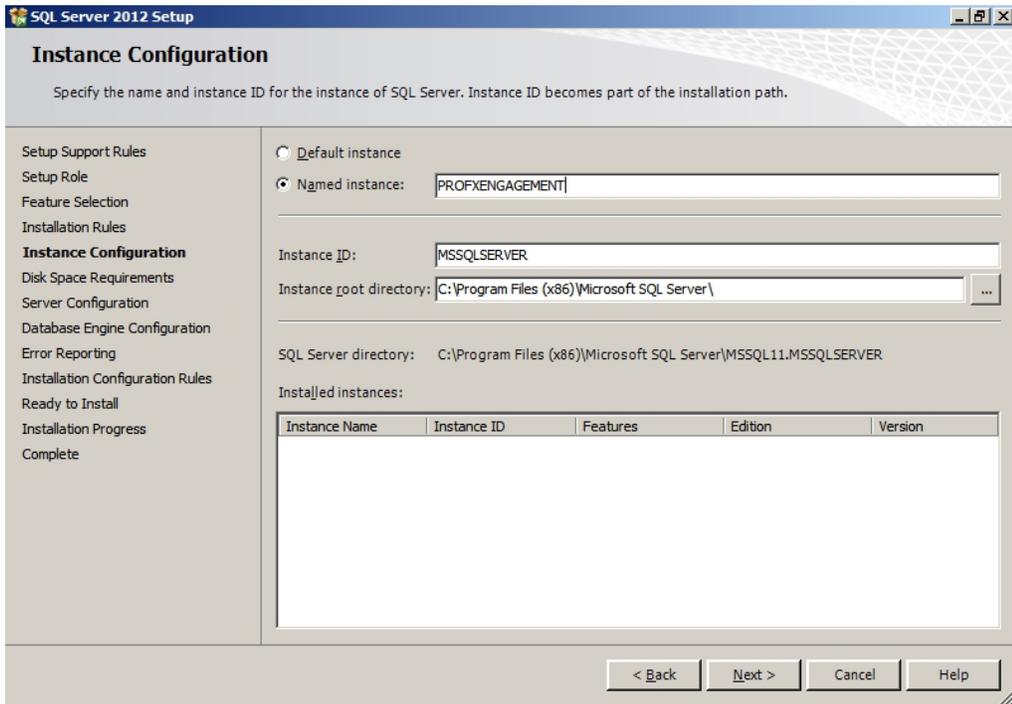


**Note:** Management Tools are optional for Workpaper Manager. However, they can be used to assist support in certain circumstances.

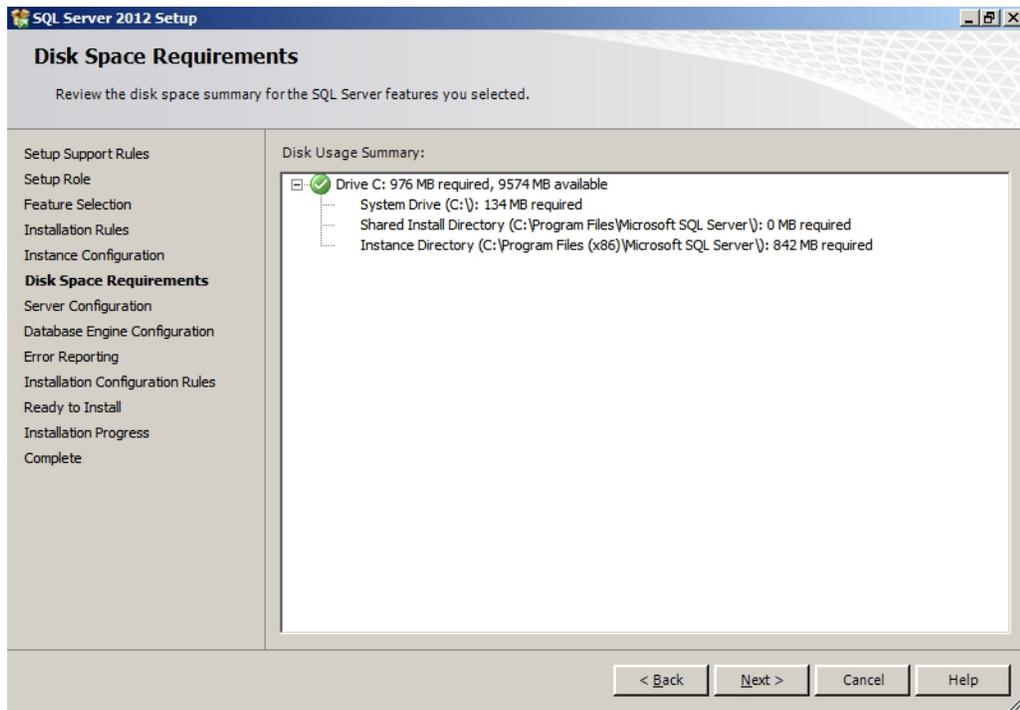
11. Click **Next** on the *Installation Rules* page.



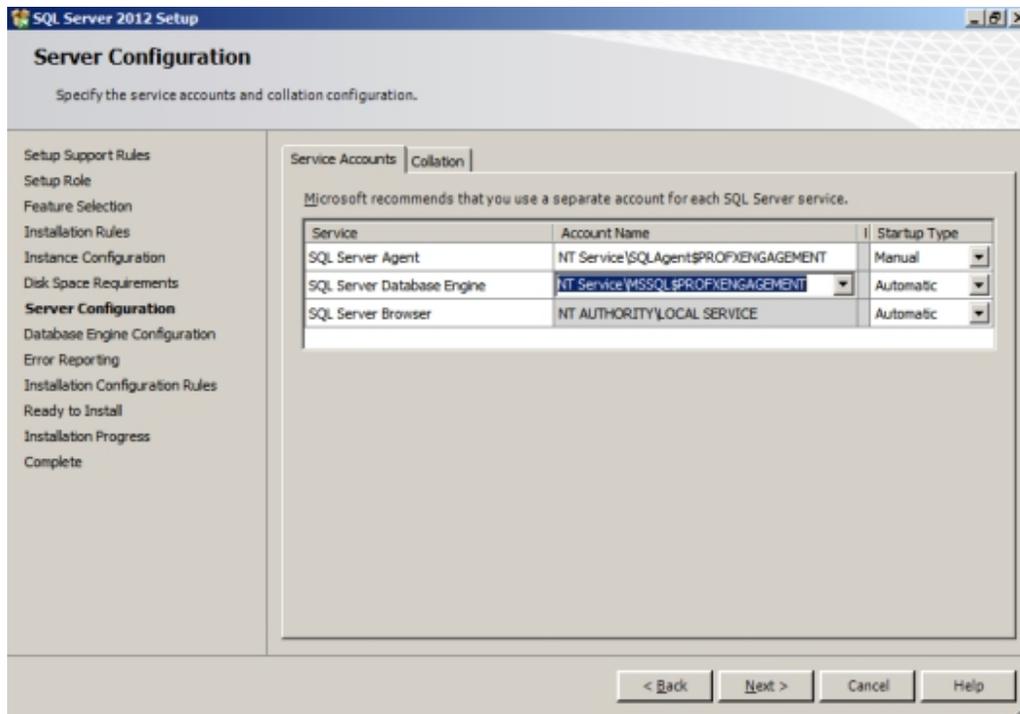
12. Select **Named Instance** and enter “PROFXENGAGEMENT” on the *Instance Configuration* screen.



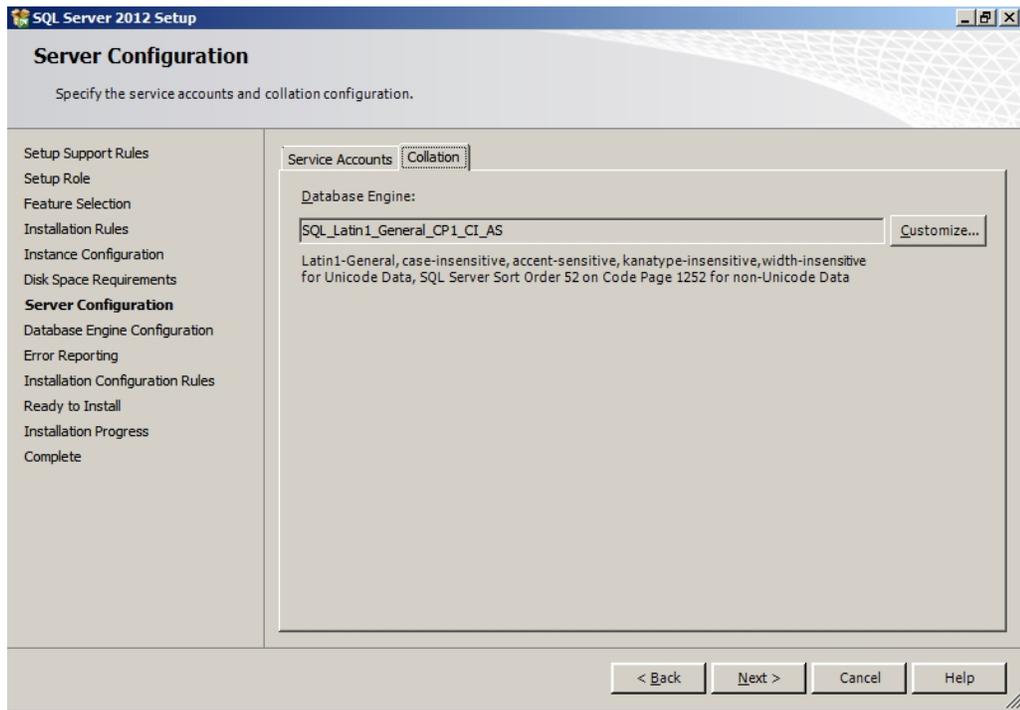
13. Click **Next** to continue. The *Disk Space Requirements* screen displays.



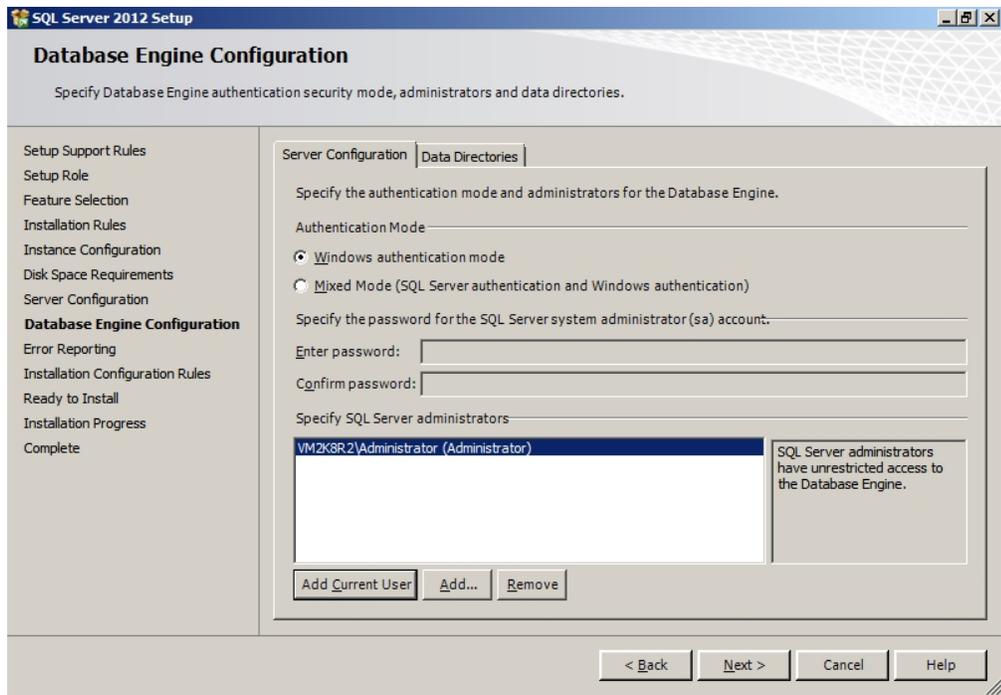
14. Click **Next** to continue.
15. On the *Service Accounts* tab of the *Server Configuration* screen, verify the **SQL Server Database Engine Startup Type** is set to **Automatic**.



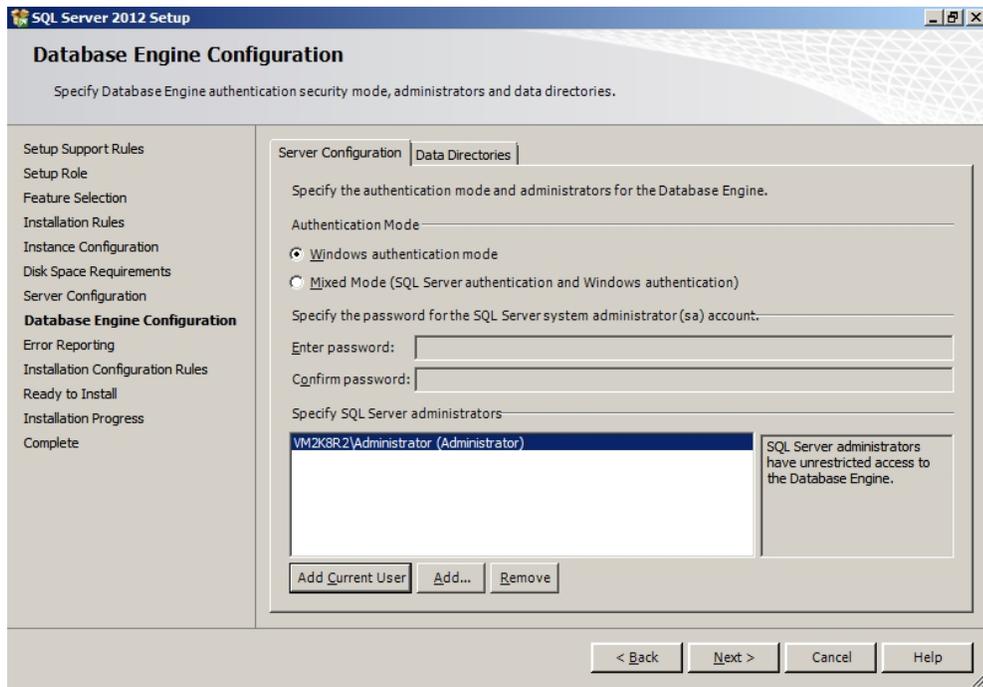
16. Leave the default settings on the *Collation* tab. If the default settings for your installation do not match those shown in the screen below, update your settings.



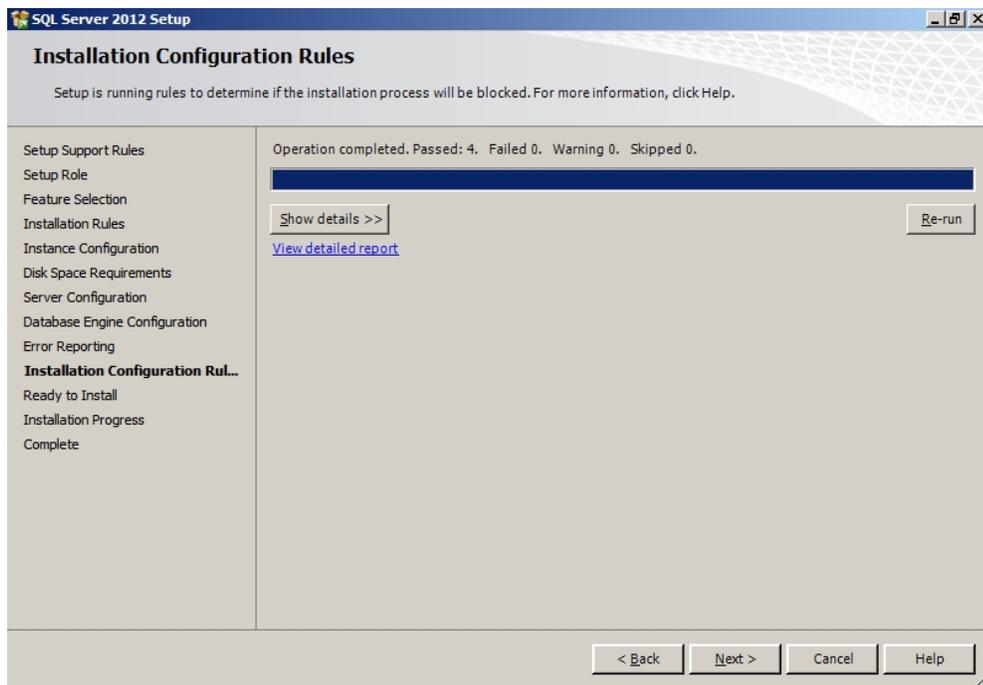
17. Click **Next** to continue.
18. Select **Windows authentication mode** on the *Database Engine Configuration* screen.



19. Add an Administrator user account in the *Specify SQL Server administrators* field.

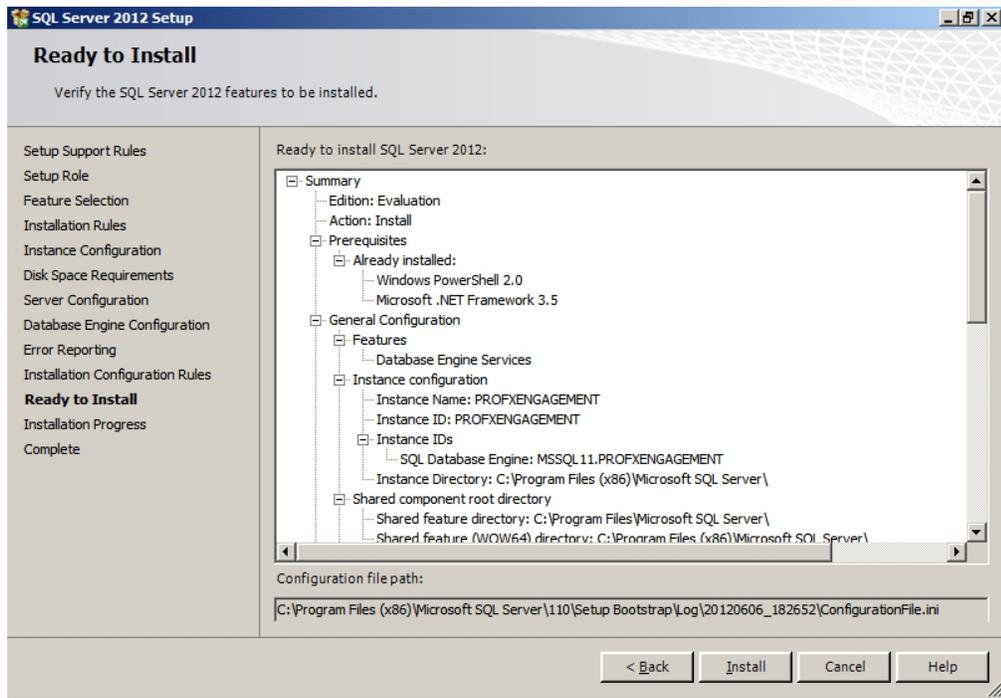


20. Click **Next** to continue. The *Error and Usage Reporting* screen displays.
21. Click **Next** to continue. The *Installation Configuration Rules* screen displays.

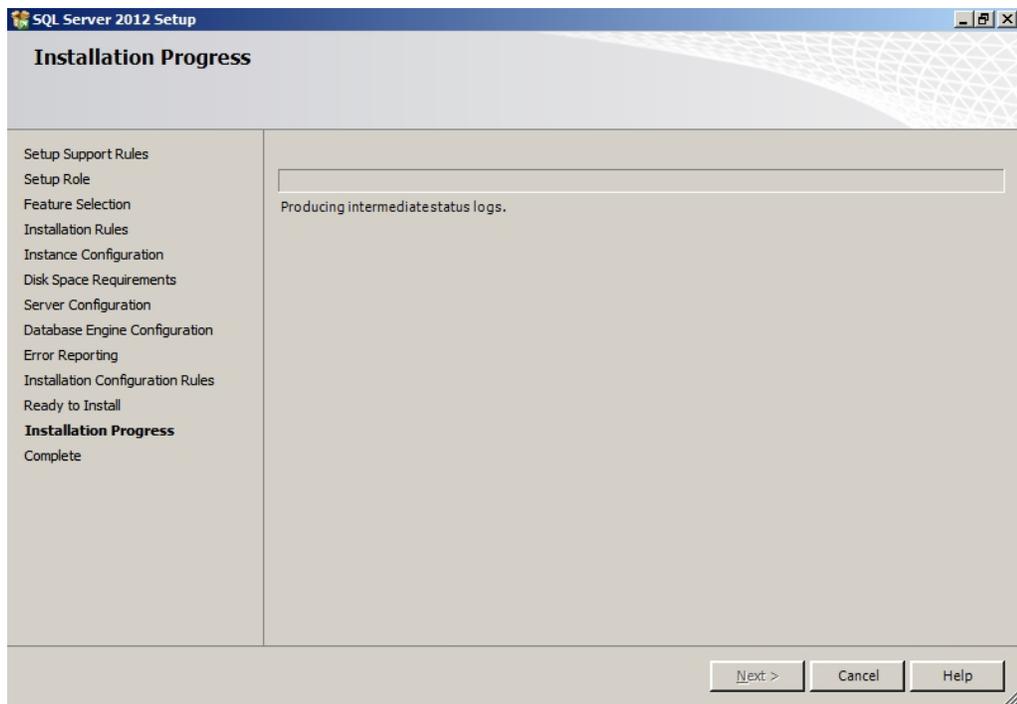


22. Click **Show Details** to see a detailed report of the Installation Rules.

23. Click **Next** to continue. The *Ready to Install* screen displays.



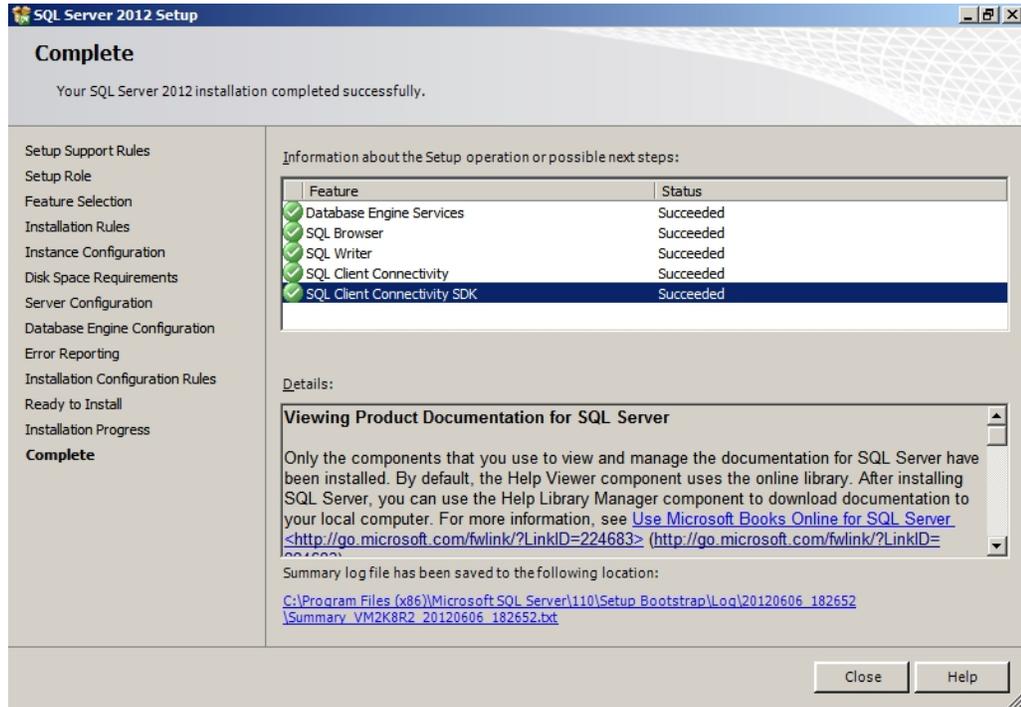
24. Verify the SQL Server 2012 features to install, and then click **Install** to continue. The *Installation Progress* screen displays.



25. Click **Next** to continue.

 **Note:** Please be patient; the install process can take a long time to complete. The Installation Progress screen will provide a notification when the setup process has completed.

26. Click **Next** to continue. The *Complete* screen displays.



27. Click **Close** to finish the installation.

28. After installation completes, you will need to go into the SQL Server® Configuration Manager and enable TCP/IP for the instance and restart the service.

 **Note:** If SQL Server® is manually installed, it will be necessary to modify the SQL Server® service account to either the *Local System* account, or another administrative service account that has adequate permissions to create database files in the Workpaper Manager installation location. All Workpaper Manager database files are created in sub-folders of the installation location.

 **Example:** If Workpaper Manager is installed to the X:\Pfx Engagement folder, then the SQL Server® service account needs to be modified to an administrative service account that has permissions to read/write files to the X:\Pfx Engagement folder. This step must be done after installing SQL Server®, but before starting the installation of CCH ProSystem fx Workpaper Manager on the server.

## Install SQL 2012 Express Instance Installer or Upgrade from SQL 2008 or SQL 2005 32-bit Express Instance Installer

---

1. Launch SQL2012ExpressInstanceInstaller.exe. SQLEXP\_x86\_ENU.exe must be in the same folder.
2. Click **Install or Upgrade SQL PROFXENGAGEMENT instance** after all requirements are met
3. Click **Run**.



**Note:** Please be patient; the install process can take a long time to complete.

## Creating a New SQL 2012 Express 64-bit Instance for Workpaper Manager

---

Though SQL 2012 Express 64-bit is supported, there currently is no installer available to create the CCH ProSystem fx Workpaper Manager SQL instance. This section provides step-by-step instructions for creating a new SQL 2012 Express 64-bit instance for CCH ProSystem fx Workpaper Manager.



**Note:** Please make sure that you follow each step carefully to ensure that the SQL instance is properly created with all required settings.

1. Download the install package from the Microsoft® Web site and launch it.
2. Click **New Installation** or add features to an existing installation.
3. Select **I accept the license terms** and click **Next**. The *Setup Support Files* screen displays.
4. Select **Install to proceed with the installation**. The *Feature Selection* screen displays.
5. Click **Unselect All**.
6. Choose **Database Engine Services** under *Instance Features and Management Tools - Basic under Shared Features*.
7. Click **Next**.



**Note:** Management Tools are optional for Workpaper Manager. However, they can be used to assist support in certain circumstances.

8. Select **Named Instance** and enter "PROFXENGAGEMENT" on the Instance Configuration screen.
9. Click **Next** to continue.
10. On the *Service Accounts* tab of the *Server Configuration* screen, select **Use the same account for all SQL Server® services** on the *Authentication Mode* screen.
11. Change the *Account Name* to **NT AUTHORITY\SYSTEM** for the SQL Server® Database Engine. Verify the Startup Type is set to "Automatic" for SQL Server® Database Engine and for SQL Server® Browser.
12. Click **Next** to continue.

13. Select **Windows® authentication mode** on the *Database Engine Configuration* screen.
14. Add an Administrator user account in the *Specify SQL Server® administrators* field.
15. Click **Next** to continue. The *Error Reporting* screen displays.
16. Click **Next** to continue. The *Installation Progress* screen displays. Please be patient; the install process can take a long time to complete.
17. Click **Next** to continue. The *Complete* screen displays.
18. Click **Close** to finish the installation.

### Installing SQL Server® 2014

---

#### Creating a New SQL Server® 2014 32-bit or 64-bit Instance for Workpaper Manager

This section provides step-by-step instructions for creating a new SQL Server® 2014 32-bit or 64-bit instance for CCH ProSystem *fx* Workpaper Manager.

If you need to create a new instance for SQL Server® 2014 Express 64-bit, please see *Creating a SQL Server® 2014 Express 64-bit Instance for Workpaper Manager* on page 52.

 **Important:** Configure the SQL Service® to use “LocalSystem” (or NT AUTHORITY\SYSTEM) as the start-up account and the SQL Browser to use “Local Service” as the start-up account.

### Upgrading SQL 2014

---

SQL Server® 2014 supports an upgrade from the following versions of SQL Server®:

- SQL Server® 2005 SP4 or later
- SQL Server® 2008 SP3 or later
- SQL Server® 2008 R2 SP2 or later
- SQL Server® 2012 SP1 or later

 **Note:** To find what version of SQL is currently installed, browse the Registry and go to the key:  
HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft  
SQLServer\PROFXENGAGEMENT\MSSQLServer\CurrentVersion.

### Recommended Operating Systems

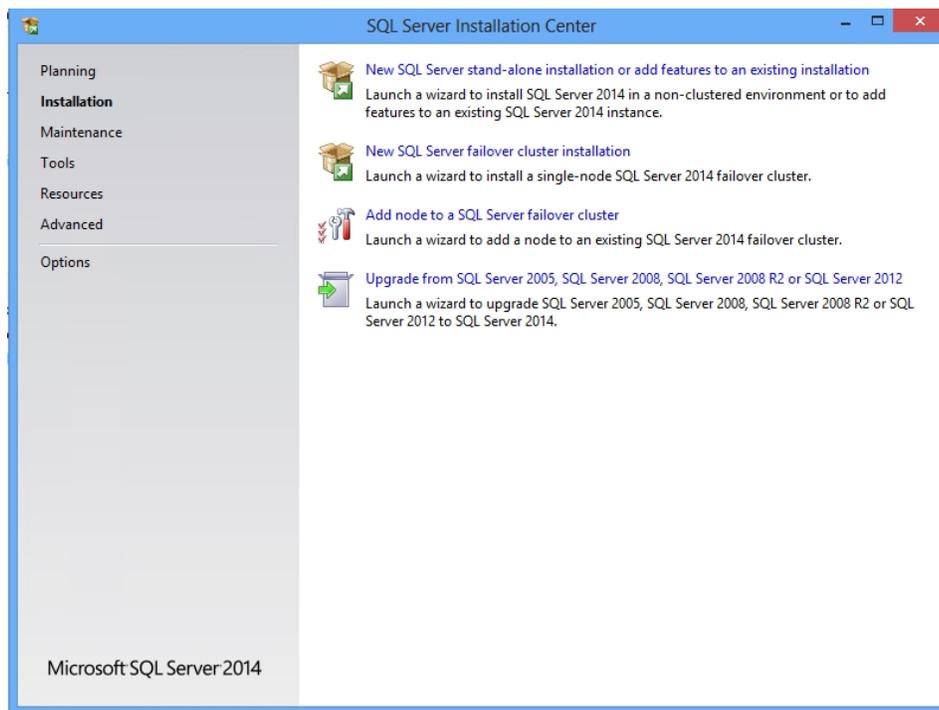
---

We recommend using Microsoft® Windows Server® 2012 (64-bit) or 2012 R2 (64-bit) with SQL Server® 2014.

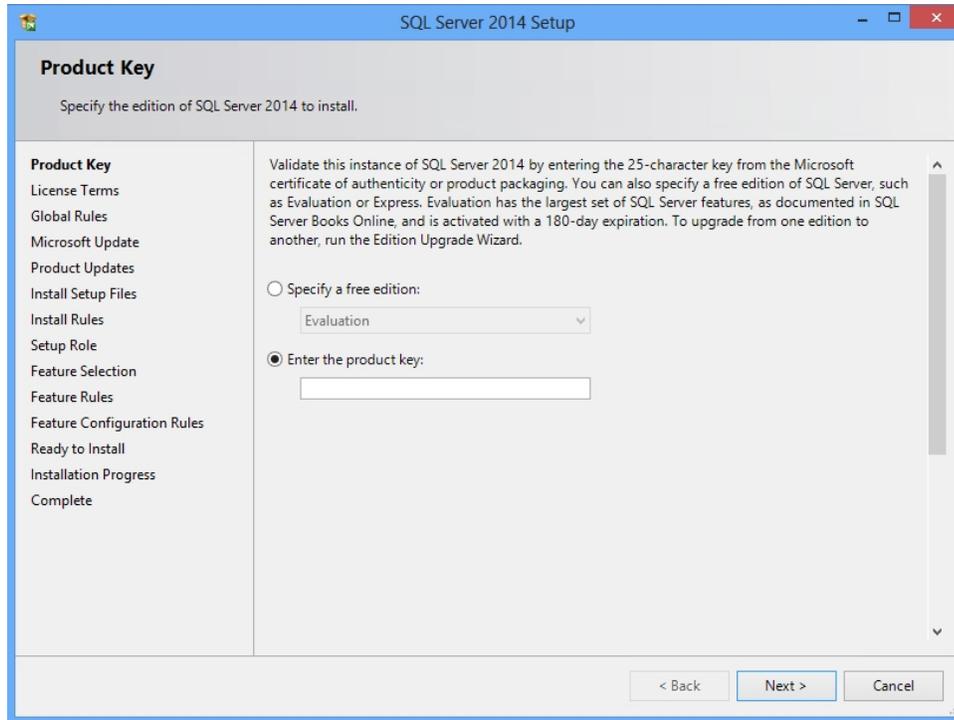
## Creating a SQL Server® 2014 Instance

 **Note:** Please make sure that you follow each step carefully to ensure that the SQL instance is properly created with all required settings.

1. Insert the SQL Server® installation media. From the root folder, double-click **Setup.exe**. To install from a network share, locate the root folder on the share, and then double-click **Setup.exe**.
2. On the *SQL Server Installation Center* page, click **Installation** in the left-hand navigation area, and then click **New SQL Server stand-alone installation or add features to an existing installation**.

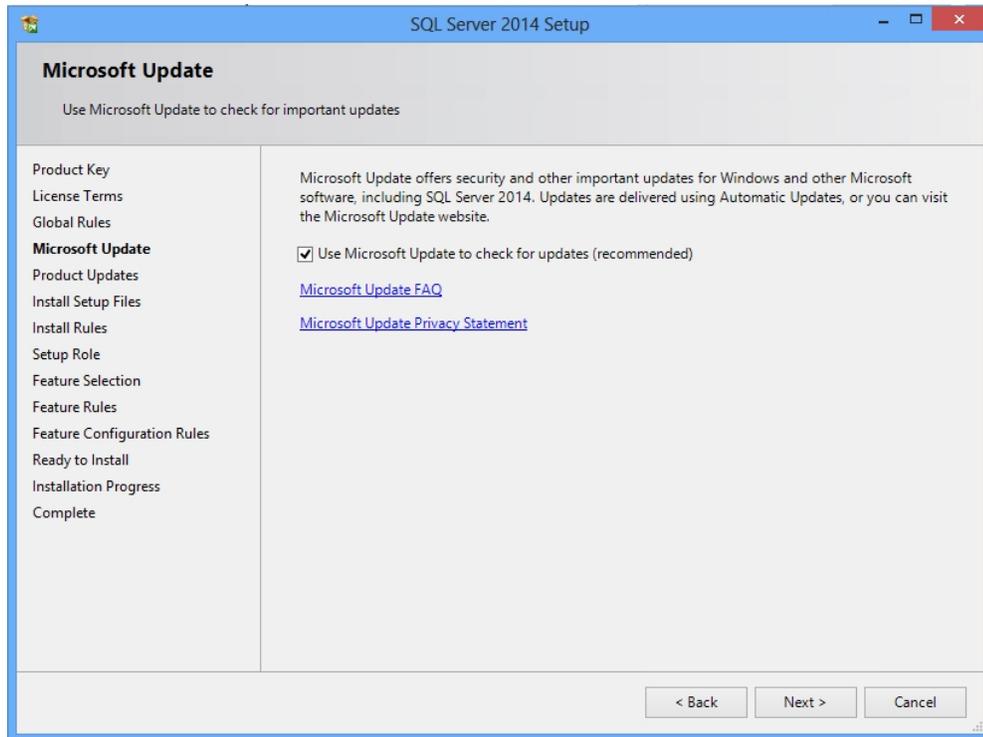


3. On the *Product Key* page, select an option to indicate whether you are installing a free edition of SQL Server®, or a production version of the product that has a PID key. For more information on Editions and Components of SQL Server 2014, see [https://msdn.microsoft.com/en-us/library/ms144275\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/ms144275(v=sql.120).aspx).



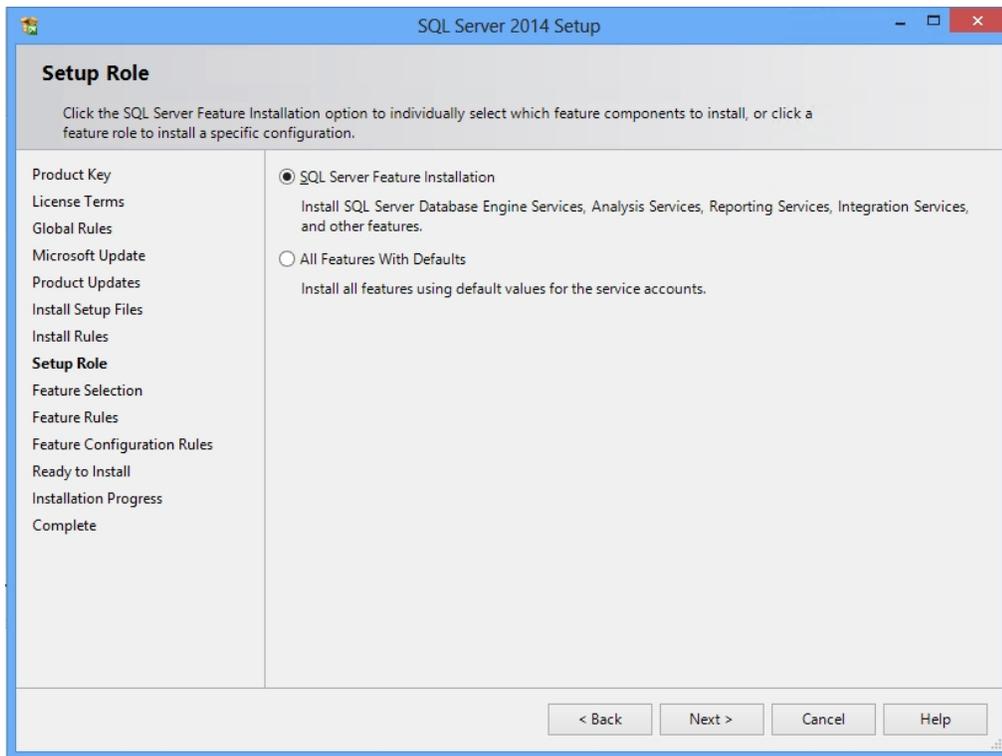
4. To continue, click **Next**.
5. On the *License Terms* page, review the license agreement and, if you agree, select the **accept the license terms** check box.  
 **Note:** To help improve SQL Server®, you can also enable the feature usage option and send reports to Microsoft®.
6. Click **Next**. In the *Global Rules* window, the setup procedure will automatically advance to the *Product Updates* window if there are no rule errors.

- The *Microsoft Update* page will appear next if the Microsoft Update check box in Control Panel > All Control Panel Items > Windows Update > Change settings is not checked. Check the box to **Use Microsoft Update to check for updates (recommended)** and then click **Next**.



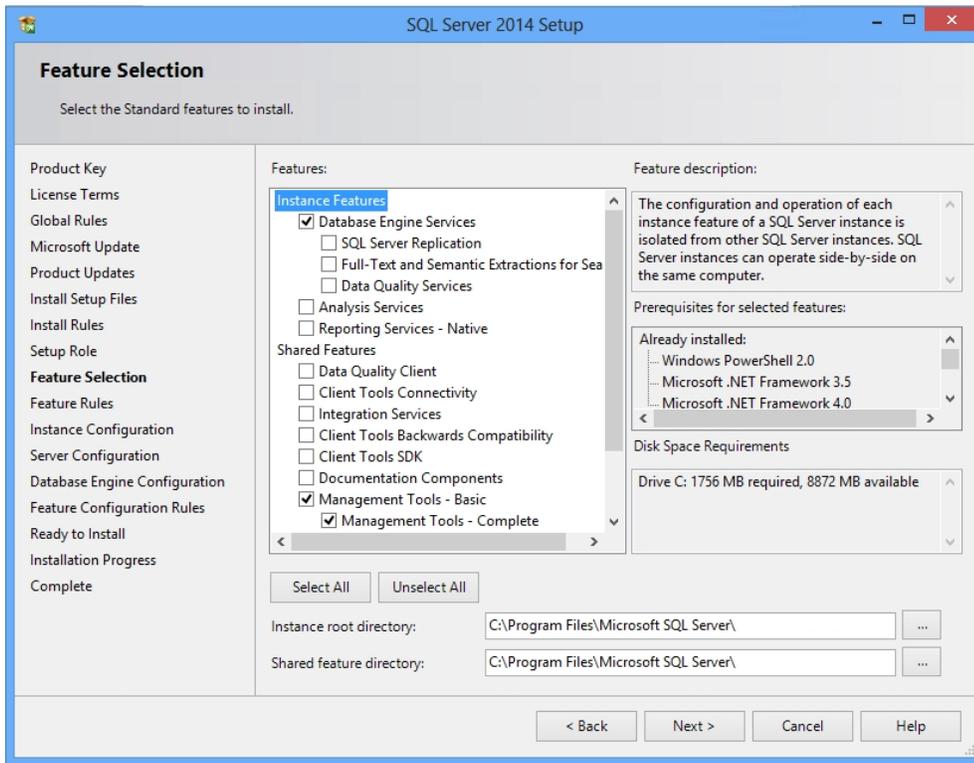
- On the *Product Updates* page, the latest available SQL Server<sup>®</sup> product updates are displayed. If no product updates are discovered, SQL Server<sup>®</sup> Setup does not display this page and advances to the *Install Setup Files* page.
  - On the *Install Setup Files* page, Setup provides the progress of downloading, extracting, and installing the Setup files. If an update for SQL Server<sup>®</sup> Setup is found, and is specified to be included, that update will also be installed.
- The *Install Rules* page identifies potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.
  - Click **Next** to continue.

10. On the *Setup Role* page, select **SQL Server Feature Installation**.



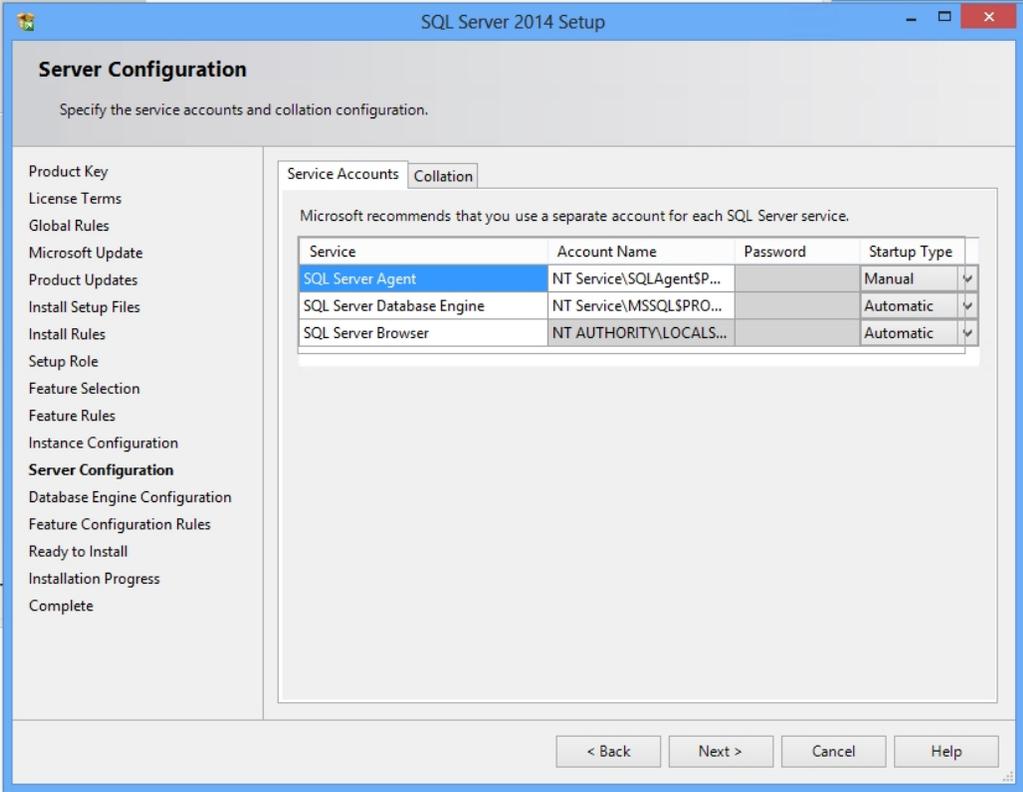
11. Click **Next** to continue to the *Feature Selection* page.
12. On the *Feature Selection* page, select **Database Engine Services** and **Management Tools**. A description for each component group appears in the Feature description pane after you select the feature name. You can select any combination of check boxes. For more information, see
  - Editions and Components of SQL Server 2014, [https://msdn.microsoft.com/en-us/library/ms144275\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/ms144275(v=sql.120).aspx).
  - Features Supported by the Editions of SQL Server 2014, [https://msdn.microsoft.com/en-us/library/cc645993\(v=sql.120\).aspx](https://msdn.microsoft.com/en-us/library/cc645993(v=sql.120).aspx).
  - Click **Next** to continue.

 **Note:** Management Tools are optional for Workpaper Manager. However, they can be used to assist support in certain circumstances.

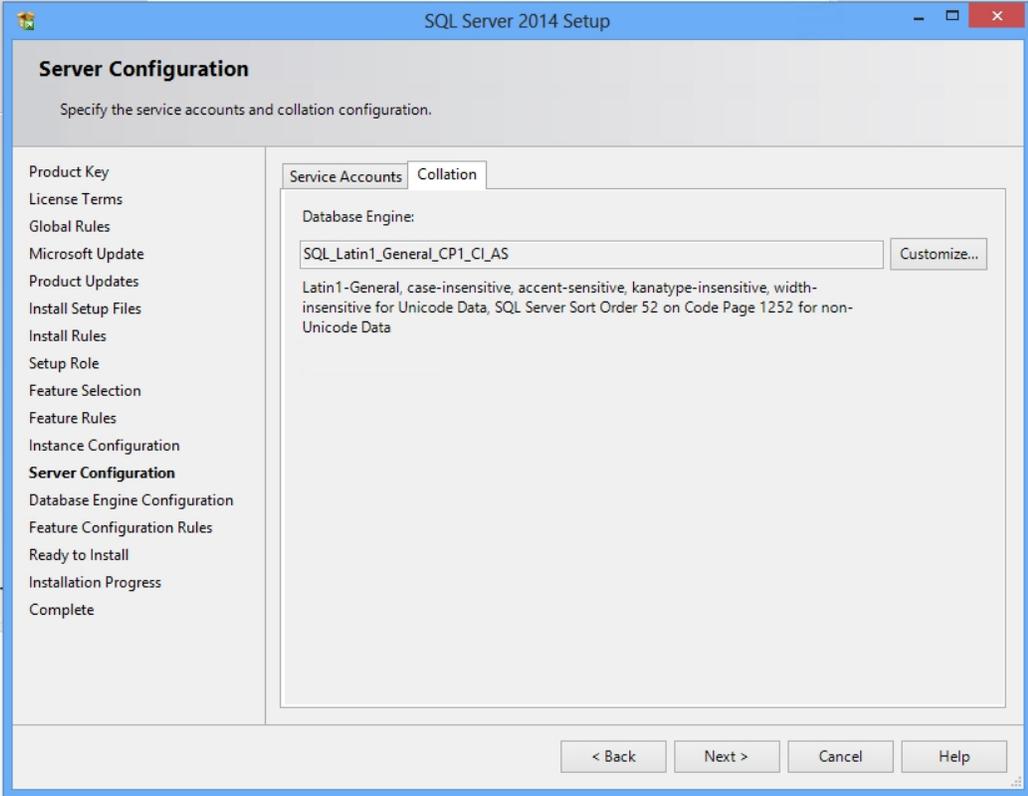


13. The *Feature Rules* window will automatically advance if all rules pass.
14. On the *Instance Configuration* page, select **Named Instance** and enter **PROFXENGAGEMENT**. By default, the instance name is used as the Instance ID.

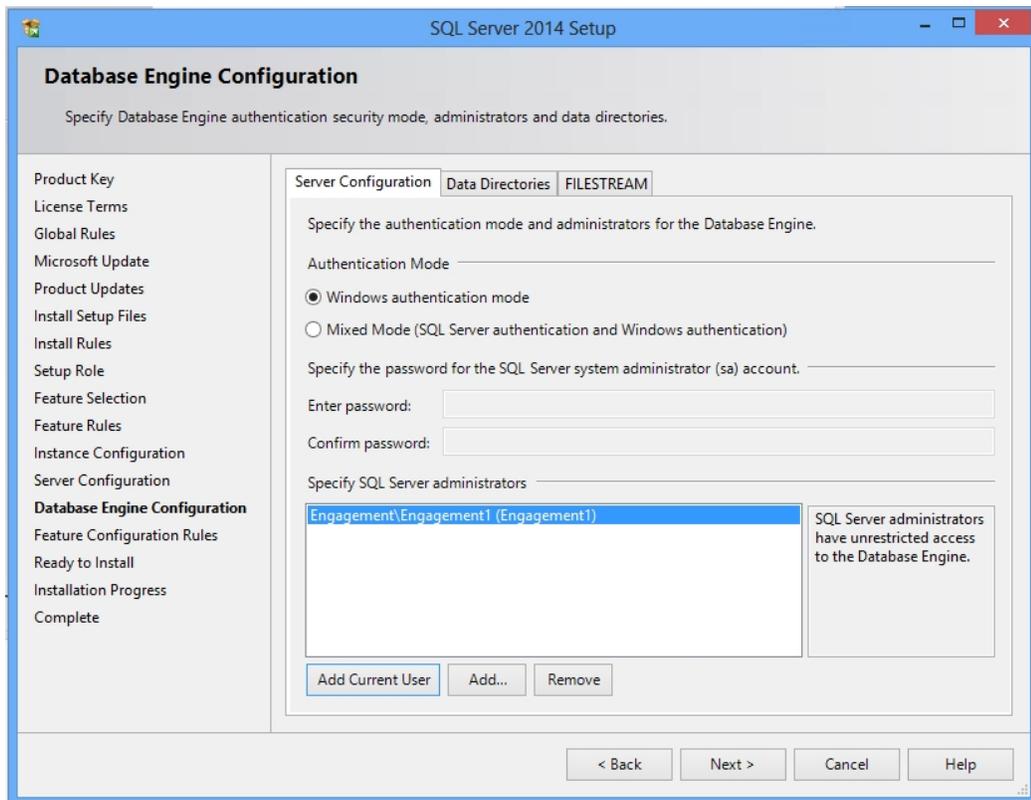
15. On the Service Accounts tab of the *Server Configuration* page, verify the **SQL Server Database Engine** and **SQL Server Browser** Startup Type is set to **Automatic**. Use the Service Accounts tab to specify login accounts for SQL Server® services. The actual services that are configured on this page depend on the features that you selected to install.



16. On the Collation tab of the *Server Configuration* page, leave the default settings. If the default settings for your installation do not match those shown in the screen below, update your settings.

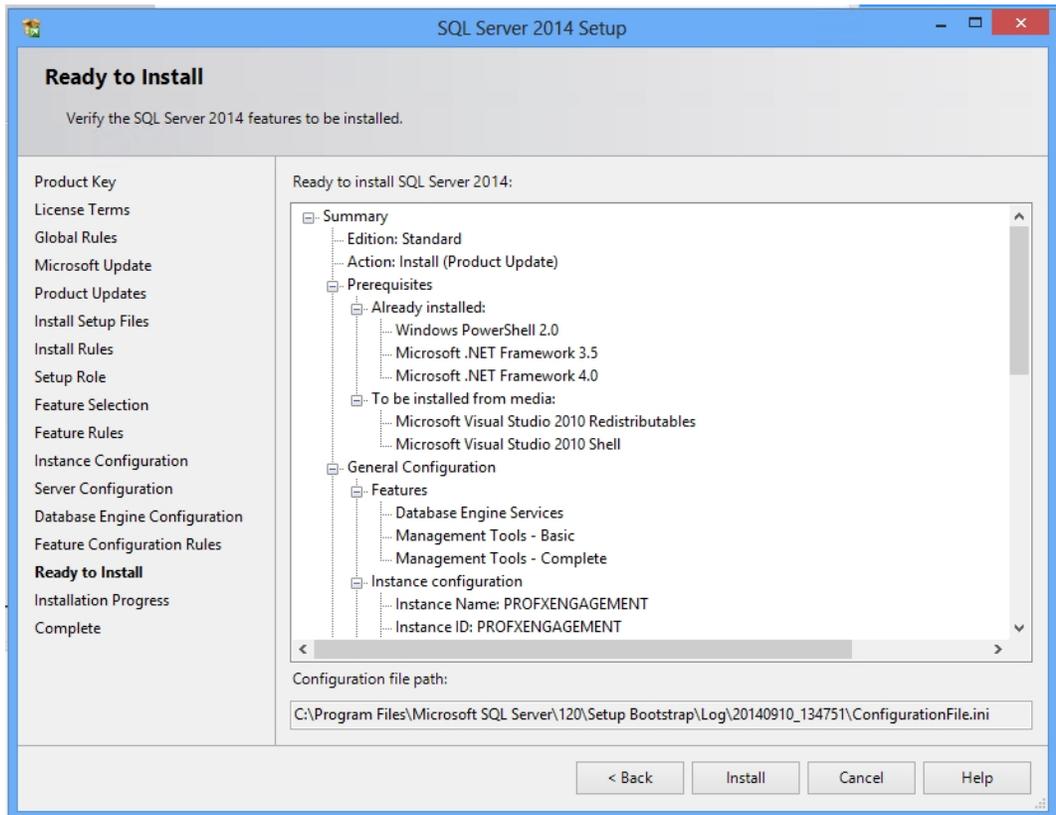


17. Click **Next** to continue.
18. On the *Database Engine Configuration* page, select **Windows authentication mode** and add at least one system administrator to the **Specify SQL Server administrators** box.



19. Click **Next** to continue.

20. The *Ready to Install* page shows a tree view of installation options that were specified during Setup. Verify the features to be installed, and then click **Install** to continue.



The *Installation Progress* page provides status so that you can monitor installation progress as Setup continues.

 **Note:** Please be patient; the install process can take a long time to complete. The *Installation Progress* screen will provide a notification when the setup process has completed.

21. After installation, the *Complete* page provides a link to the summary log file for the installation and other important notes. To complete the SQL Server® installation process, click **Close**.
22. After installation completes, you will need to go into the SQL Server® Configuration Manager and enable TCP/IP for the instance and restart the service.

 **Note:** If SQL Server® is manually installed, it will be necessary to modify the SQL Server® service account to either the *Local System* account, or another administrative service account that has adequate permissions to create database files in the Workpaper Manager installation location. All Workpaper Manager database files are created in sub-folders of the installation location.

 **Example:** If Workpaper Manager is installed to the X:\Pfx Engagement folder, then the SQL Server® service account needs to be modified to an administrative service account that has permissions to read/write files to the X:\Pfx Engagement folder. This step must be done after installing SQL Server®, but before starting the installation of CCH ProSystem fx Workpaper Manager on the server.

## Creating a SQL Server® 2014 Express Instance or Upgrading a 32-bit Instance for Workpaper Manager

---

1. Launch SQL2014ExpressInstanceInstaller.exe. Verify SQLEXPRESS\_86\_ENU.exe is in the same folder.
2. Click **Install or Upgrade SQL PROFXENGAGEMENT instance** after all requirements are met.
3. Click **Run**.

 **Note:** Please be patient; the install process can take a long time to complete.

## Creating a SQL Server® 2014 Express 64-bit Instance for Workpaper Manager

---

Though SQL Server® 2014 Express 64-bit is supported, there currently is no installer available to create the CCH ProSystem fx Workpaper Manager SQL instance. This section provides step-by-step instructions for creating a new SQL Server® 2014 Express 64-bit instance for CCH ProSystem fx Workpaper Manager.

 **Note:** Please make sure that you follow each step carefully to ensure that the SQL instance is properly created with all required settings.

1. Download the install package from the Microsoft® Web site and launch it.
2. Click **Installation** and select **New SQL Server® stand-alone installation or add features to an existing installation**. The License Terms screen appears.
3. Click **I accept the license terms** and click **Next**. The Product Updates screen appears.
4. On the Product Updates page, the latest available SQL Server® product updates are displayed. If you don't want to include the updates, clear the **Include SQL Server® product updates** check box. If no product updates are discovered, SQL Server® Setup does not display this page and auto advances to the **Feature Selection** page.

5. Click **Next**. The Feature Selection window appears.
6. Click **Unselect All**.
7. Select **Database Engine Services** under Instance Features.
8. Click **Next**. The Instance Configuration screen appears.



**Note:** Management Tools are optional for Workpaper Manager. However, they can be used to assist support in certain circumstances.

9. Select Named instance and enter **PROFXENGAGEMENT**.
10. Click **Next**. The Server Configuration screen appears. Microsoft® recommends that you use a separate account for each SQL Server® service. Verify the Startup Type is set to “**Automatic**” for both **SQL Server® Database Engine** and **SQL Server® Browser**.
11. Click **Next**. The Database Engine Configuration screen appears.
12. Select **Windows® authentication mode**.
13. Add an Administer user account in the Specify SQL Server® administrators field.
14. Click **Next**. The Installation Progress screen appears. Please be patient; the install process can take a long time to complete.
15. Click **Next**. The Complete screen displays.
16. Click **Close** to finish the installation.

### Installing SQL Server® 2016

---

#### Creating a New SQL Server® 2016 64-bit Instance for Workpaper Manager

This section provides step-by-step instructions for creating a new SQL Server® 2016 64-bit instance for CCH ProSystem fx Workpaper Manager.

If you need to create a new instance for SQL Server® 2016 Express 64-bit, please see *Creating a SQL Server® 2016 Express Instance or Upgrading a 64-bit Instance for Workpaper Manager* on page 65.

 **Important:** Configure the SQL Service® to use “LocalSystem” (or NT AUTHORITY\SYSTEM) as the start-up account and the SQL Browser to use “Local Service” as the start-up account.

### Upgrading SQL 2016

---

SQL Server® 2016 supports an upgrade from the following 64-bit versions of SQL Server®:

- SQL Server® 2008 SP4 or later
- SQL Server® 2008 R2 SP2 or later
- SQL Server® 2012 SP1 or later
- SQL Server® 2014 or later

 **Notes:**

- To find what version of SQL is currently installed, browse the Registry and go to the key: HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\SQLServer\PROFXENGAGEMENT\MSSQLServer\CurrentVersion.
- For more information about upgrading to SQL Server® 2016, see *Upgrading from a 32-bit Microsoft® SQL Server® Instance to SQL Server® 2016* on page 65.

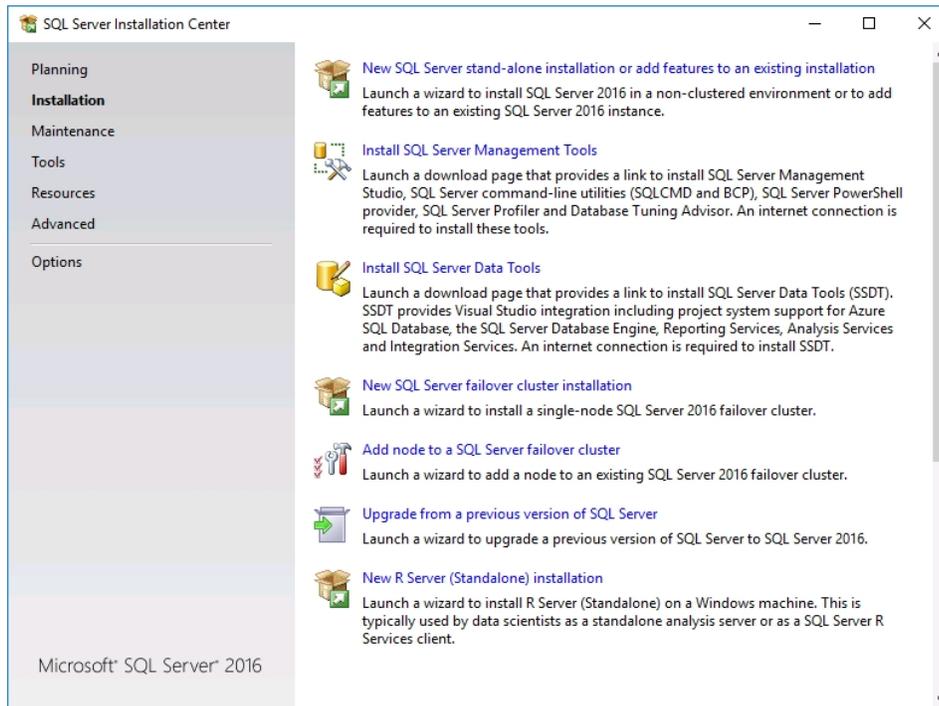
## Recommended Operating Systems

We recommend using Microsoft® Windows Server® 2012 (64-bit), 2012 R2 (64-bit) or 2016 (64-bit) with SQL Server® 2016.

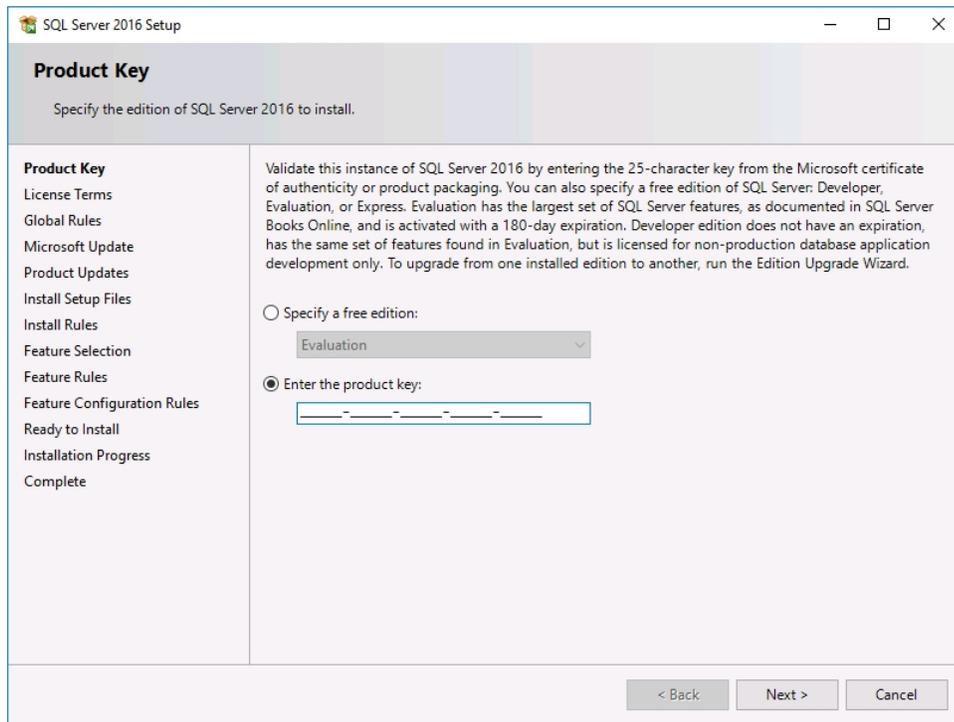
## Creating a SQL Server® 2016 Instance

 **Note:** Please make sure that you follow each step carefully to ensure that the SQL instance is properly created with all required settings.

1. Insert the SQL Server® installation media. From the root folder, double-click **Setup.exe**. To install from a network share, locate the root folder on the share, and then double-click **Setup.exe**.
2. On the *SQL Server Installation Center* page, click **Installation** in the left-hand navigation area, and then click **New SQL Server stand-alone installation or add features to an existing installation**.

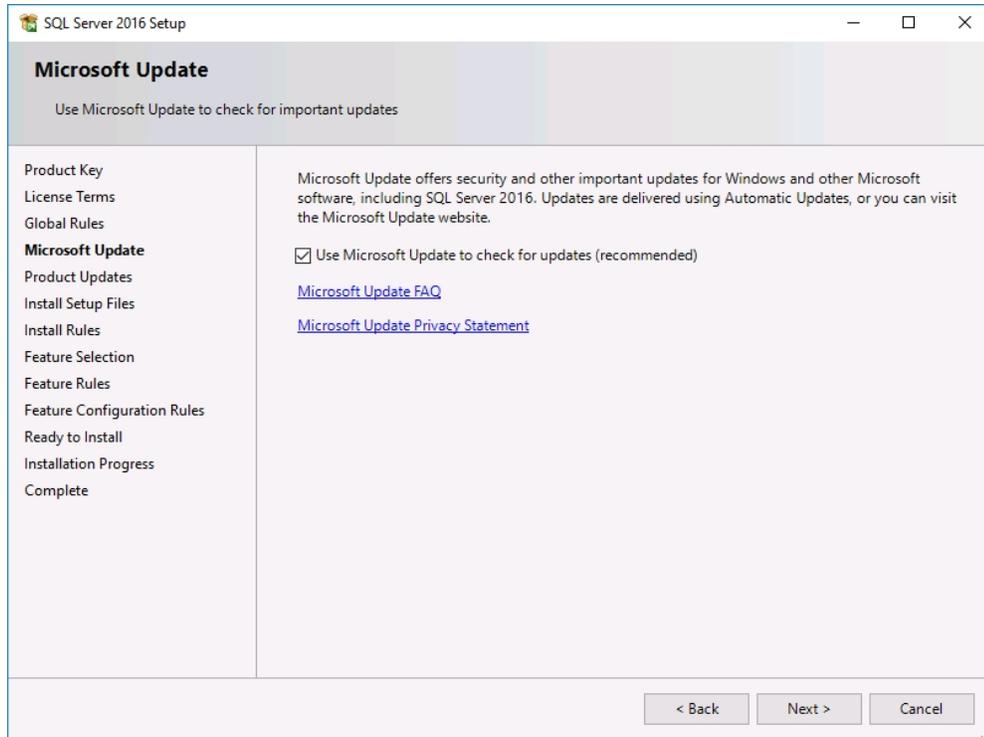


3. On the *Product Key* page, select an option to indicate whether you are installing a free edition of SQL Server® or a production version that has a PID key. For more information, see [Editions and Components of SQL Server](#).



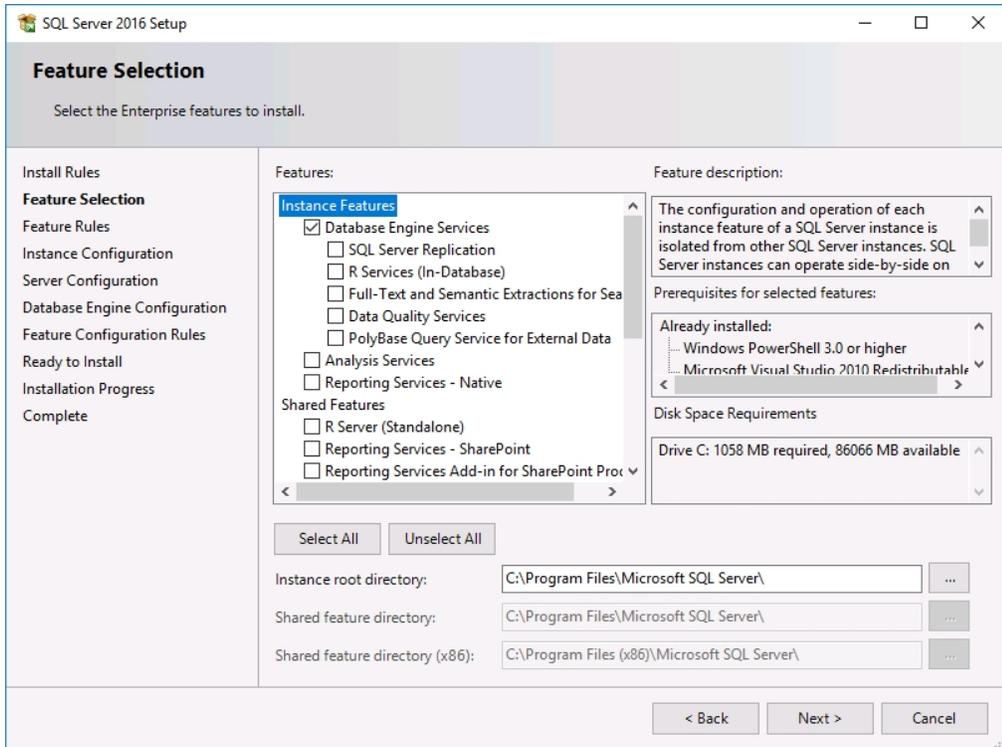
4. To continue, click **Next**.
5. On the *License Terms* page, review the license agreement and, if you agree, select the **I accept the license terms** check box.
6. Click **Next**. In the *Global Rules* window, the setup procedure will automatically advance to the *Product Updates* window if there are no rule errors.

7. If the *Microsoft Update* option is not selected in Control Panel > All Control Panel Items > Windows Update > Change settings, then the *Microsoft Update* page displays. Select the **Use Microsoft Update to check for updates (recommended)** option, and then, click **Next**. If the *Microsoft Update* option is selected, continue to the next step,



- On the *Product Updates* page, the latest available SQL Server® product updates are displayed. If no product updates are discovered, SQL Server® Setup does not display this page and advances to the *Install Setup Files* page.
  - On the *Install Setup Files* page, Setup provides the progress of downloading, extracting, and installing the Setup files. If an update for SQL Server® Setup is found, and is specified to be included, that update will also be installed.
8. The *Install Rules* page identifies potential problems that might occur while running Setup. Failures must be corrected before Setup can continue.
9. Click **Next** to continue

- On the *Feature Selection* page, select **Database Engine Services**. A description for each component group appears in the Feature description pane after you select the feature name. You can select any combination of check boxes. For more information, see [Editions and Components of SQL Server](#).



- Click **Next** to continue. The *Feature Rules* window will automatically advance if all rules pass.
- On the *Instance Configuration* page, select **Named Instance** and enter **PROFXENGAGEMENT**. By default, the instance name is used as the Instance ID.

13. On the Service Accounts tab of the *Server Configuration* page, verify the **SQL Server Database Engine** and **SQL Server Browser** Startup Type is set to **Automatic**. Use the Service Accounts tab to specify login accounts for SQL Server® services. The actual services that are configured on this page depend on the features that you selected to install.

The screenshot shows the 'Server Configuration' dialog box in the SQL Server 2016 Setup wizard. The 'Service Accounts' tab is selected. The dialog box contains a table with columns for Service, Account Name, Password, and Startup Type. The 'SQL Server Agent' service is highlighted in blue. Below the table, there is a checkbox for 'Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service' which is unchecked. A warning message explains that this privilege enables instant file initialization, which may lead to information disclosure. A 'Click here for details' link is provided. At the bottom, there are buttons for '< Back', 'Next >', and 'Cancel'.

Service	Account Name	Password	Startup Type
SQL Server Agent	NT Service\SQLAgentSP...		Manual
SQL Server Database Engine	NT Service\MSSQLPRO...		Automatic
SQL Server Browser	NT AUTHORITY\LOCAL ...		Automatic

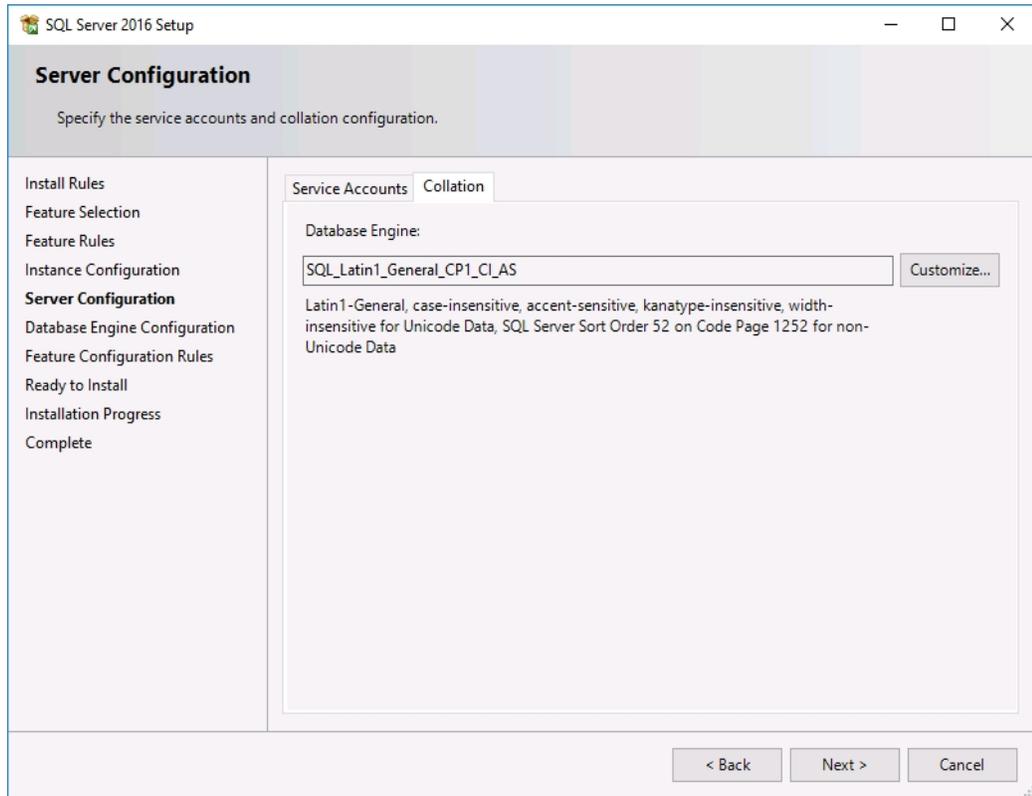
Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service

This privilege enables instant file initialization by avoiding zeroing of data pages. This may lead to information disclosure by allowing deleted content to be accessed.

[Click here for details](#)

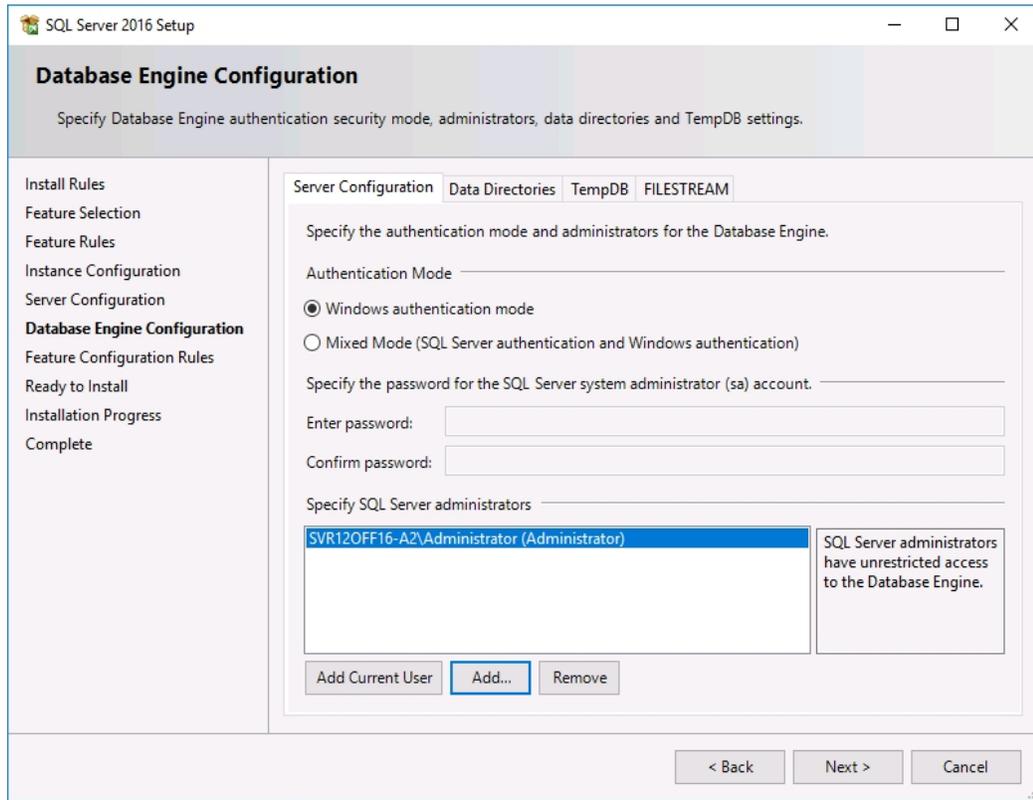
 **Important:** Do not select the box **Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service**.

14. On the Collation tab of the *Server Configuration* page, leave the default settings. If the default settings for your installation do not match those shown in the screen below, update your settings.



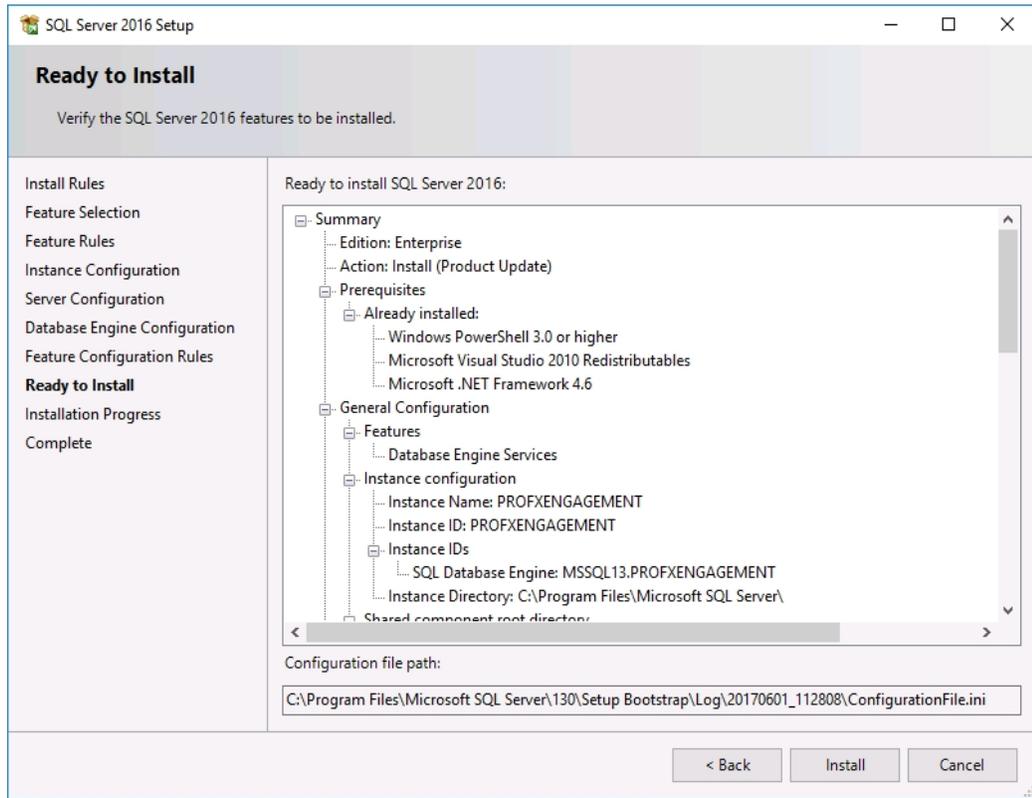
15. Click **Next** to continue.

16. On the *Database Engine Configuration* page, select **Windows authentication mode** and add at least one system administrator to the **Specify SQL Server administrators** box.



17. Click **Next** to continue.

18. The *Ready to Install* page shows a tree view of installation options that were specified during setup. Verify the features to be installed, and then click **Install** to continue.

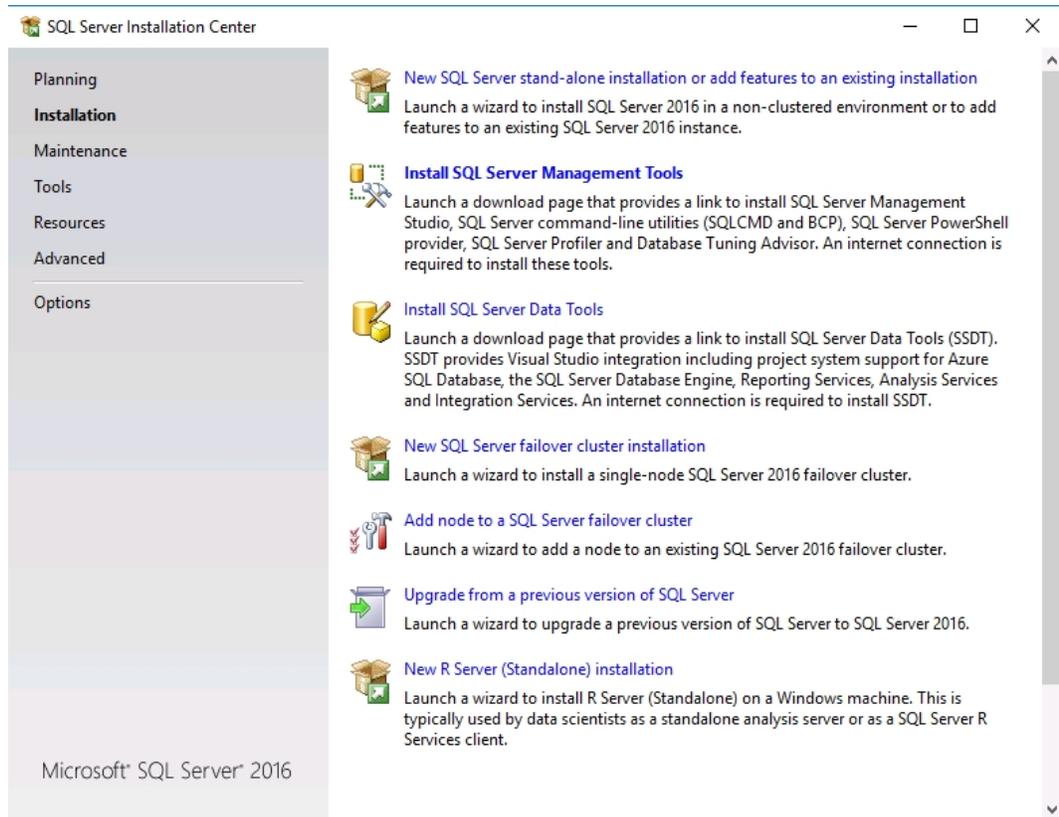


The *Installation Progress* page provides status so that you can monitor installation progress as Setup continues.

 **Note:** Please be patient; the install process can take a long time to complete. The *Installation Progress* screen will provide a notification when the setup process has completed.

19. After installation, the *Complete* page provides a link to the summary log file for the installation and other important notes. To complete the SQL Server® installation process, click **Close**.
20. After the SQL Server installation completes, we recommend that you install Management Tools. On the *SQL Server® Installation Center* page, click **Installation** in the left-hand navigation area, and then click **Install SQL Server Management Tools**. A web browser will then open.

 **Note:** Management Tools are optional for Workpaper Manager. However, they can be used to assist support in certain circumstances.



21. Select **Download SQL Server Management Studio 17.1** and save the **SSMS-Setup-ENU.exe**.

 **Note:** To download the installation, you will need to ensure your security settings allow for file downloads.

22. Once the download is complete, double-click the file to run the installation. If prompted, select **Run** to continue with the installation.
23. On the *Microsoft SQL Server Management Studio Welcome* page, click **Install**. The *Installation Progress* page provides status so that you can monitor installation progress as setup continues.



 **Note:** If SQL Server® is manually installed, it will be necessary to modify the SQL Server® service account to either the *Local System* account, or another administrative service account that has adequate permissions to create database files in the Workpaper Manager installation location. All Workpaper Manager database files are created in sub-folders of the installation location.

 **Example:** If Workpaper Manager is installed to the X:\Pfx Engagement folder, then the SQL Server® service account needs to be modified to an administrative service account that has permissions to read/write files to the X:\Pfx Engagement folder. This step must be done after installing SQL Server®, but before starting the installation of CCH ProSystem *fx* Workpaper Manager on the server.

## Upgrading from a 32-bit Microsoft® SQL Server® Instance to SQL Server® 2016

---

With most versions of Microsoft® SQL Server®, there is a 32-bit and a 64-bit version of the program. Starting with Microsoft® SQL Server® 2016, you will only be able to install a 64-bit version of the software. If you already have a 32-bit version of an SQL instance installed, there is not a traditional upgrade path to convert to a 64-bit platform. To move to a 64-bit platform of Microsoft® SQL Server®, you will need to uninstall the 32-bit SQL instance and then re-install the instance using the 64-bit version. For more information, please refer to this [Microsoft® article](#).

 **Note:** Prior to performing any installation processes with your SQL instance, be sure to use the proper SQL backup procedures for the installed instance to prevent any data loss. Once the installation procedure is completed, you can restore your 32-bit backup to the 64-bit version of the instance without issue.

## Creating a SQL Server® 2016 Express Instance or Upgrading a 64-bit Instance for Workpaper Manager

---

1. Launch CCH ProSystem *fx* SQL 2016 Instance Installer.exe. Verify SQLEXPRESS\_x64\_ENU.exe is in the same folder.
2. Review the Microsoft® Software License Terms, and if you agree, select the **I accept the license terms** check box.
3. Click **Next**.
4. Click **Install or Upgrade SQL PROFXENGAGEMENT instance** after all requirements are met.
5. Click **Run**.

 **Notes:**

- Please be patient; the install process can take a long time to complete.
- As mentioned above, you cannot upgrade from a 32-bit SQL instance to SQL<sup>®</sup> Server 2016 as this is only available in 64-bit.

## INSTALLING WORKPAPER MANAGER WITH ACTIVE DIRECTORY®

### Installing Workpaper Manager with Active Directory®

---

A Microsoft® Windows Server®, with Microsoft® Active Directory®, may be used to push CCH ProSystem fx Workpaper Manager across multiple computers. CCH ProSystem fx Workpaper Manager v6.5 and higher are supported when upgrading the program.

### Requirements

---

Before starting, please make sure that all computers to which Workpaper Manager will be deployed meet the following requirements and have the following components installed:

- Machines must meet the minimum requirements for CCH ProSystem fx Workpaper Manager installation. See *Workpaper Manager 2017 System Requirements* on page 2.
- A SQL Server® 2012, SQL Server® 2014, or SQL Server® 2016 Express instance must be installed prior to installing CCH ProSystem fx Workpaper Manager.



**Note:** For machines that have a prior version of Workpaper Manager installed, there is no need to install a SQL Server® instance again if SQL 2012 or higher is installed, because those machines already have the Workpaper Manager SQL database instance.

- The following applications must be manually installed before a push of the 2017 Workpaper Management module from Active Directory®:
  - .Net Framework 4.6.1 Full
  - SQL Server® 2008 Native Client (32- or 64-bit)
  - Visual Studio® Tools for Office Runtime 4.0 (VSTOR) (32-bit version for 32-bit OS and 64-bit version for 64-bit OS)
  - SQLXML 4.0, SP 1
  - Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.17
  - Microsoft® Visual C++® 2008 Redistributable x86 9.0.30729.4148
  - Microsoft® Visual C++® 2010 Redistributable x86 10.0.40219

 **Important:**

- Deployment of CCH ProSystem *fx* Workpaper Manager using Active Directory® is supported for all international versions (United States, Canada, and Australia).
- CCH ProSystem *fx* Workpaper Manager supports SQL Server® 2012 Express, 2014 Express, or 2016 Express. However, due to limitations of the Microsoft® SQL Express® instance installers, it is not possible to use Active Directory® to push the installation of the SQL Express® instance.

## Pushing CCH ProSystem *fx* Workpaper Manager

---

Once all of the above requirements have been met, follow the instructions below to push CCH ProSystem *fx* Workpaper Manager across computers in a network using Active Directory®.

1. After verifying that the Server® 2012 Express, SQL Server® 2014 Express, or SQL Server® 2016 Express instance has been installed, open the Group Policy created for the Express installation.
2. In the Group Policy Object Editor under Computer Configuration, expand the Software Settings folder by clicking on the + icon. Under the Software Settings folder, right-click on Software installation and select **New > Package**.
3. Browse to the location of the *CCH ProSystem fx Workpaper Manager.msi* package that was copied to the server's local drive.

 **Note:** When browsing to the location of the installation package, you must use a UNC path.

4. Select the file and click **Open**.
5. On the next screen select **Assigned** if it is not already selected.
6. Wait a few seconds until the *CCH ProSystem fx Workpaper Manager.msi* package displays under Software Installation. The Workpaper Manager package has now been assigned to all the computers that were selected earlier.

Wait a few minutes and then reboot all computers that were selected for installation. CCH ProSystem *fx* Workpaper Manager will be installed automatically on these machines at start-up; a screen will display showing the message "Installing managed software CCH ProSystem *fx* Workpaper Manager."

If you have a previous version of Workpaper Manager installed on any of these computers and you are upgrading, all Workpaper Manager modules will be upgraded simultaneously. In addition, SQL databases will be converted by the Workpaper Manager upgrade installation. Converting Trial Balances is a separate process. Please see the CCH ProSystem *fx* Workpaper Manager *Conversion Guide* for additional details.

If no prior version of Workpaper Manager exists on a computer, then ONLY the SQL Express® instance and Workpaper Manager Workpaper Management module (including Trial Balance) will be installed.

### General Program Information

---

#### Computer Names

CCH ProSystem *fx* Workpaper Manager relies on the NetBIOS computer name for most of the internal program communications.

- NetBIOS requires computer names to be a maximum of 15 characters.
- It is strongly recommended you do not rename your computer, for any reason, after installing the SQL instance for CCH ProSystem *fx* Workpaper Manager.
  - Doing so may cause serious issues in the program.
  - If you have renamed or modified the computer name after Workpaper Manager is installed and are experiencing issues, contact Technical Support at 1-866-513-2677.
- Due to possible data loss and installation issues and serious issues with the program, imaging machines with Workpaper Manager and the SQL instance for Workpaper Manager already installed is not supported.

#### TCP/IP

CCH ProSystem *fx* Workpaper Manager and SQL rely on TCP/IP for network and system connections.

- Internet Protocol v4 (IPv4) is supported.
- Internet Protocol v6 (IPv6) is supported.



**Note:** Server and client machines must have a common version of the Internet Protocol available in order to communicate. They both must have either IPv4 or IPv6 or both versions selected.

## Services

CCH ProSystem *fx* Workpaper Manager uses four services for communication between the local file rooms and the office servers as well as between the office servers. The services are as follows:

- SQL Server® (PROFXENGAGEMENT)
- PFXEngDesktopService
- PFXSYNPFTService
- P2EWinService
- Pfx.Engagement.SocketService

 **Note:** PfxPDFConvertService.exe is also running in the background and is started at the startup of the machine. This executable handles CCH ProSystem *fx* Workpaper Manager PDF printing.

## SQL

This service is the SQL data engine that is used to drive the CCH ProSystem *fx* Workpaper Manager database. SQL runs as a service, “SQL Server® (PROFXENGAGEMENT),” using a Local System account that requires full security rights. In CCH ProSystem *fx* Workpaper Manager this service will transfer data from workstation database to server database, server database to server database and workstation database to workstation database over TCP/IP.

If for any reason the SQL Server® (PROFXENGAGEMENT) service is not running, both the Administrator and Client modules will stop working and the users will be instructed to close the program. By default this service will start up when the computer starts and remain on until it is either manually stopped or the computer is shut down.

The SQL Server® (PROFXENGAGEMENT) service is a memory intensive service that will utilize as much memory as is available to complete the requests it receives. The memory will be released back to the system as the computer needs the memory for another process. We recommend that you reboot your workstation daily in order to free up any memory that is being accessed but not used. Installing additional memory may also improve performance.

For servers where the Admin module is installed, we recommend that you develop a schedule where you restart the SQL Server® (PROFXENGAGEMENT) service so it will release the memory.

## PFXEngDesktopService.exe

This is the service that CCH ProSystem *fx* Workpaper Manager uses to initiate a refresh of the remote Workpaper Management or Administrator module. This service interacts with the desktop of the workstation or server it is running on. Because the service interacts with the desktop, the service runs under the system account and cannot be changed without rendering the service ineffective.

## PFXSYNPFTService.exe

This service is used to copy or move the workpapers from the LFR to the CFR, from CFR to CFR or from LFR to LFR. This service runs under the system account by default but can be changed as needed. If you store your workpapers on a location other than the server where the Administrator

Module is installed, you will need to change the user account to a user that has access to that location.

For more information, please see the Workpaper Location User Rights section.

## P2EWinService.exe

This service is used to copy workpapers from CCH Axxess Portal to CCH ProSystem *fx* Workpaper Manager.

## Ports

CCH ProSystem *fx* Workpaper Manager transfers data over the following ports:

- SQL Server® (PROFXENGAGEMENT) - TCP port 2029; UDP port 1434
- PFXSYNPFTService - TCP port 6735
- PFXEngDesktopService - TCP port 6736
- PfxConfigUtility - UDP port 6737
- P2EWinService - TCP ports 943 and 4530
- Pfx.Engagement.SocketService.exe - TCP port 4531

These ports are configured on the server and workstations during installation. However, if you are connecting over a VPN or through a firewall, or another device such as a router, you will need to ensure that these ports are opened in order for the program to work correctly.

## Other SQL Applications

If you are installing CCH ProSystem *fx* Workpaper Manager on a computer which currently has an application using SQL as its database engine, you must stop the SQL service before installing CCH ProSystem *fx* Workpaper Manager. When upgrading or reinstalling CCH ProSystem *fx* Workpaper Manager, stop all other SQL services before upgrading but leave the SQL Server® (PROFXENGAGEMENT) service running.

 **Important:** Failure to do this may cause one or both of the applications to fail.

## Installation in a Non-Windows® Environment (Linux®)

---

CCH ProSystem *fx* Workpaper Manager utilizes the Microsoft® SQL database architecture; however, Workpaper Manager is compatible with Non-Windows® networks, including Linux®, with one additional requirement: the SQL database engine application and database files must reside on a Windows® computer and must be visible to the Non-Windows® network. All workpapers, (Central File Rooms), may be stored on the Non-Windows® file server.

There are a few specific steps which need to take place in order to ensure proper communication between the local file rooms and the available central file rooms. The following procedures will assist you in the setup process:

## Requirement

The SQL database engine requires a computer with a Windows®-based operating system (Windows Server® 2012, Windows Server® 2012 R2, Windows Server® 2016, Windows® 7, Windows® 8.1, or Windows®10). The computer must meet the minimum requirements set forth in the User Guide or posted on the Workpaper Manager Support Web site. This computer will be used to house the Workpaper Manager office server and SQL databases.

## Procedures

1. Read the installation instructions in this document.
2. On the Non-Windows® server, you will need to create a folder that will store the central file room workpapers.
3. Install CCH ProSystem fx Workpaper Manager Administrator to the Windows® computer defined above.
4. Log in and set up this machine as an office server.
5. Follow the steps defined below under Workpaper Location User Rights to set up the synchronization service to run as needed for this configuration.
6. Create a central file room. When selecting the *Location of central file room workpapers*, browse to the folder created on the Non-Windows® server in Step 2.
7. On a separate workstation, install CCH ProSystem fx Workpaper Manager Workpaper Management module.
8. Log in to the Workpaper Management module and follow the prompts as they appear.
9. Once you have successfully logged in, test the above by synchronizing a binder to/from a central file room on the Non-Windows® server.

## Other Information

---

### User Rights

The installation process sets the Workpaper Manager folder permissions automatically. These rights are needed for Workpaper Manager to function optimally. The installation gives the “Users” group all rights except Full Control. These rights are inherited by all child objects so that all folders and subfolders within Workpaper Manager receive these same rights.

### Admin Share Folder

For logging purposes, the Administrator module writes to X:\Pfx Engagement\Admin\Admin Share. Please note that the program will still work (Administrator actions may still be performed) even if the system cannot write to the log files. For logging and troubleshooting purposes, we strongly recommend that Admin users be given rights to this folder, which will allow the system to properly log all Administrator actions.

## Domain Controllers

Due to issues with Admin Synch failures and transferring Transition Binder Packages between Office Servers, we do not support installing the CCH ProSystem *fx* Workpaper Manager Administrator module on a Domain Controller. Additionally, installing the Workpaper Manager Administrator module on a Domain Controller puts the server into the role of being a database and file server. If the Domain Controller goes down, the Admin module and central file rooms will not be available. Our recommendation is to use a separate server for the Admin Module.

 **Note:** Microsoft® does not recommend installing SQL Server® on a Domain Controller. See the following:

- [http://msdn.microsoft.com/en-us/library/ms143506.aspx#DC\\_Support](http://msdn.microsoft.com/en-us/library/ms143506.aspx#DC_Support)
- [http://msdn.microsoft.com/en-us/library/ms144228\(v=sql.100\).aspx](http://msdn.microsoft.com/en-us/library/ms144228(v=sql.100).aspx)
- [http://msdn.microsoft.com/en-us/library/ms144228\(v=sql.105\).aspx](http://msdn.microsoft.com/en-us/library/ms144228(v=sql.105).aspx)

## Macro Security Settings Requirements for Excel® and Word Addins

If the Very High macro security setting is selected in Excel® or Word, the macros required for the Workpaper Manager addins will not function. We recommend setting the macro security to a setting that is lower than Very High.

## Workpaper Location User Rights

CCH ProSystem *fx* Workpaper Manager utilizes a service to transfer the workpapers from the LFR to the CFR that does not require the user to have rights to the CFR location.

The service is called PFXSYNPFTService.exe, referred to as the Pfx sync service. The Pfx sync service works by emulating File Transfer Protocol (FTP) and therefore only requires that the service itself have rights to the destination location. By default, the service runs under the Local System Account, which has full access to the local computer. However, if the workpaper location of the CFR is stored on another machine, the service will need to be configured to run under a user account that has Full Control rights to the destination location of the workpapers folder.

The first step in this process is to create a user on each server that has rights to all Workpaper Manager-related directories and folders. Once you have a user on each server you will need to make the following modification on the office server (the server where the database files are located):

1. Open Administrative Tools from the Control Panel and select **Services**.
2. Once Services is open, find the PFXSYNPFTService listed in the *Name* column.
3. Right click on the Service and select **Stop**.
4. Right click on the Service and select **Properties**.
5. Click on the **Log On** tab.
6. Select the **This Account** radio button and then click **Browse**.
7. A dialog will appear that will allow you to browse for a user. Select the user you previously created for this process.
8. Once you have selected the user and clicked **OK**, you will return to the Log On screen.

9. Click **Apply**. You will be prompted that the user has been granted Login privileges.
10. Click **OK**.
11. Click **OK** to close the *Properties* dialog.
12. Right click on the Service and select **Start**.

## Workpaper Location User Rights for Shared File Room

The Shared File Room is an alternate way of using Workpaper Manager, where users are allowed to directly access the Local File Room of another user. Using this method, one machine is designated as the “Host” of the Shared File Room, while all other users are designated as “Remote” users. The Host and Remote users are allowed to access the Host Local File Room, and can open binders and workpapers from this shared location.

The Workpaper Manager Shared File Room is completely dependent on Windows® file sharing to function. Therefore, it is important that the Host user have proper rights to share folders on the Workstation. This requires at least Power User rights on the machine.

The Windows® file share requires remote users to authenticate to the Host machine. Local user account will need to be added to the Host machine to allow the remote users to access the Shared File Room.

Please see the CCH ProSystem *fx* Workpaper Manager *Shared File Room Guide* available for download from the CCH ProSystem *fx* Workpaper Manager Web site for details on this feature.

## Time Synchronization

Time synchronization is an integral part of CCH ProSystem *fx* Workpaper Manager. Time synchronization is used to ensure that the latest changes in your binders are processed correctly during synchronization. Ensuring that servers and workstations running Workpaper Manager are synchronized for time will help ensure that you do not lose data and that the latest changes to the data and the server are kept.

To ensure time synchronization, CCH ProSystem *fx* Workpaper Manager encourages you to utilize LAN based time synchronization software.

 **Important:** Time synchronization needs to take place on the network. Tools such as the “NET TIME” command allow you choose a computer on the network to synchronize your clock with. We DO NOT recommend having your users synch with time servers on the internet as each server could possibly be several seconds off.

## Citrix®/Terminal Services - Shared File Room

Due to file locking issues with Shared File Room, we do not support having two users log into the same WM profile (using the same login ID) at the same time via Citrix® or Terminal Services.

## ISA (Internet Security and Acceleration) Server Connection Settings

Synchronization failures occurring on large binders may be caused by the number of connections the ISA server allows per client. It may be necessary to remove the per client connection limit in order to successfully synchronize these binders. In the *Connection Limit* dialog, the “Limit the number of connections” setting should be unchecked.

## Supported Microsoft® Windows® Operating Systems and Windows® Servers®

The Microsoft® Windows® 7, Windows® 8.1, and Windows® 10 Operating Systems are supported. Only Enterprise, Business, and Ultimate Editions are supported for use with CCH ProSystem *fx* Workpaper Manager.

These Operating Systems add new security features, including User Account Control (UAC) and BitLocker. Workpaper Manager will install and function with the UAC feature turned on. The installation process requires a system administrator, which is also required with all other operating systems currently supported by Workpaper Manager. BitLocker encryption is supported when used with Workpaper Manager.

### Notes:

- BitLocker is only available on Windows® 7 Enterprise and Ultimate Editions, Windows® 8.1, Server 2012 and Server 2016.
- User Account Control (UAC) is also included with Windows Server® 2012, and Windows Server® 2012 R2 and Windows Server® 2016.
- Windows Server® 2012, Windows Server® 2012 R2, and Windows Server® 2016 are supported.

## CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility

---

For instructions on using the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility, refer to *Appendix F: Database Backup and Restore* on page 77.

### Third Party Backup and Restore Processes

If you are currently using a third party backup software to back up the Workpaper Manager databases, you will not be able to restore a single binder to the central file room. The CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility allows the restoration of a single binder or an entire central file room. For additional information, refer to *Appendix F: Database Backup and Restore* on page 77.

If you are using the differential backup option in the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility, when full backups are performed on a database using a third-party backup software, the differential backup will be impacted. Any databases that were backed up using the third-party software will then also be backed up in full as part of the differential backup, which will increase the size of the differential backup file.

If you choose to use a third party backup and restore process, there may be some additional requirements that need to be considered. Refer to the "Frequently Asked Questions" section on the Support Web site.

## Name Resolution - Connecting to Workpaper Manager

---

CCH ProSystem *fx* Workpaper Manager uses SQL as the database engine. SQL connects from the desktops to the server using the TCP/IP protocol. Workpaper Manager is utilizing SQL browsing to enable the client to see the server or to enable one server to see another. When you first launch CCH ProSystem *fx* Workpaper Manager Workpaper Management you are asked to select an office server to connect to. A list of servers is made available to you to choose from. However, in some cases, depending on the network type and setup you may not see the server that you are looking for. This can also happen when you are trying to connect to another Workpaper Management install when in field mode.

The primary cause of this is the network not being able to resolve the NetBIOS name of the workstations and servers across networks. These networks include Virtual LANs, Subnets or WANs.

The four methods listed below may be used to alleviate this issue:

- Setting up a DNS server (preferred)
- Creating and using HOSTS and LMHOSTS files
- Setting up a WINS server
- Using the CCH ProSystem *fx* Workpaper Manager Configuration Utility

For further details on the methods listed above, obtain the Microsoft® documentation necessary, or contact your system administrator for assistance.

## Microsoft® Word and Gridlines with OLE Links

---

Microsoft® has confirmed there is an issue with MS® Word when printing the gridlines in Word (\*.docx) for a linked Excel® Object. The gridlines do not print properly with subsequent printing. In order to work around this issue, you can open the Excel® file and go to the Page Layout tab. In the Sheet Options group, uncheck the View option for Gridlines. Alternatively, if the file is saved in the .doc file format, the issue will not present itself. For more information, please refer to <http://support.microsoft.com/kb/2616546>.

## Support

---

If you need more information or further assistance with any of the items above, please contact Technical Support.

### Database Backup and Restore

---

#### Overview

CCH ProSystem *fx* Workpaper Manager utilizes the SQL database engine.

This utility has been created to aid administrators in the backup and restore process for the CCH ProSystem *fx* Workpaper Manager CentralAdmin, Trial Balance, and bin databases. Please note that the SQL databases used for Workpaper Manager may not be backed up using your standard backup procedures. Because direct access to the databases is required, you must either use this utility to back up the database files, or use a SQL Agent available from your third party backup software vendor.

This utility is designed for backup and restore of the CentralAdmin database, TB databases and all bin databases for a single main or secondary office server. This utility will need to be run separately on each Office Server in your CCH ProSystem *fx* Workpaper Manager environment.

 **Important:**

- To restore a single deleted binder to a Central File Room you must use the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility. Your third party backup and restore software is unable to restore a single binder that has been deleted from the Central File Room.
- It is imperative that the firm's backup processes be tested to ensure proper backups are taken and that they can be restored. The backup processes should be tested upon the initial setup and periodically to ensure that the backup can be restored in the event of a failure.

 **Note:** In the event that a Trial Balance needs to be restored, use the option to restore a single binder. The workpapers folder for the binder will also need to be restored.

The Database Backup & Restore Utility is also the best tool to assist you in migrating the CCH ProSystem *fx* Workpaper Manager Administrator module from one server to another.

## Backup Considerations

---

This utility will create a single backup file that contains the backup of all office server databases. If you installed CCH ProSystem *fx* Workpaper Manager to the default installation path, the database files that will be backed up are located in the following directories: X:\Pfx Engagement\Admin\Data and X:\Pfx Engagement\TB\Data.

 **Note:** Due to including the TB database in the backup process, the storage space for the database and the time to complete the backup have increased. The .bak files created by the backup may be twice the size of those in prior versions of Workpaper Manager. The time required to complete the process could also be twice as long.

If a failure occurs while backing up a specific database and the database cannot be backed up, that database will be skipped and this information will be reported in a log file. The log file will be located in the same directory as the BackupRestoreUtil.exe with the default name of FAILED - LogFileForBRMMDDYYYY - HH MM SS. The backup process will continue after such a failure occurs to ensure the remaining databases are properly backed up. Should a failure occur with a specific database or binder during the restore process, please contact Workpaper Manager Customer Support.

Consider the information in the following sections when performing database backup.

### Additional Files to Be Backed Up

To ensure a complete backup, the files in the following folders will need to be backed up separately using your current backup methods. The files stored in these folders are not included in the backup that is generated by the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility.

- Workpapers folder
- Admin Packages folder
- Archive folder
- Transition Binder Packages folder

 **Important:**

- To ensure 100% consistency between the SQL database backup and the Workpaper Manager Workpaper folder backup, it is recommended to perform each backup within the same window of time when no changes are occurring on *the office server*.
- If you are not able to prevent all users from accessing the office server during the backups, then the optimal approach will be to run the backups consecutively to minimize the chance of inconsistencies. If you are performing snapshot backups of the Workpaper Manager Workpaper folders on a regular basis and if it can be scheduled to run under Windows® Task Scheduler, then it is recommended to add your snapshot backup as a 2nd step to the Windows® scheduled task that you have or will create for the Backup Utility, as per section *Running the Backup Utility (Task Scheduler) on page 85*.

## Back Up the Database Backup File

In addition to backing up the folders listed above with your current backup methods, be sure to also back up the database backup (.bak) file. If you choose to store your backup files on the server where the Admin module is installed, the backup files should be kept on a different drive. In addition, if you are performing differential backups as part of your backup strategy, you should be sure to backup both the differential database backup file as well as the full database backup file that was the base for the differential backup.

## Disable Synchronization

We highly recommend you disable admin and binder synchronization before beginning the backup process to ensure that the databases and workpapers contain identical information. During the time of the backup process, synchronization will not be allowed. Users attempting to synchronize during this time will receive an error.

## Close CCH ProSystem *fx* Workpaper Manager Administrator

To run the Database Backup & Restore Utility, you must first close CCH ProSystem *fx* Workpaper Manager Administrator.

## Differential Backups

If performing full backups nightly is time consuming, and the files are taking up too much space, then you may optionally choose to perform differential backups. A differential backup is based on the latest full backup of the data, which is also known as the base of the differential or differential base.

A differential backup contains only the data that has changed since the differential base. Typically, differential backups that are taken fairly soon after the base backup are smaller and faster to create than the full backup. Usually a differential base is used by several successive differential backups.

Over time, as a database is updated, the amount of data that is included in the differential backup increases. This makes the backup slower to create and to restore. Eventually, another full backup must be created to provide a new differential base for another series of differential backups. At restore time, you will need both the full backup file and the latest differential backup file.

### Notes:

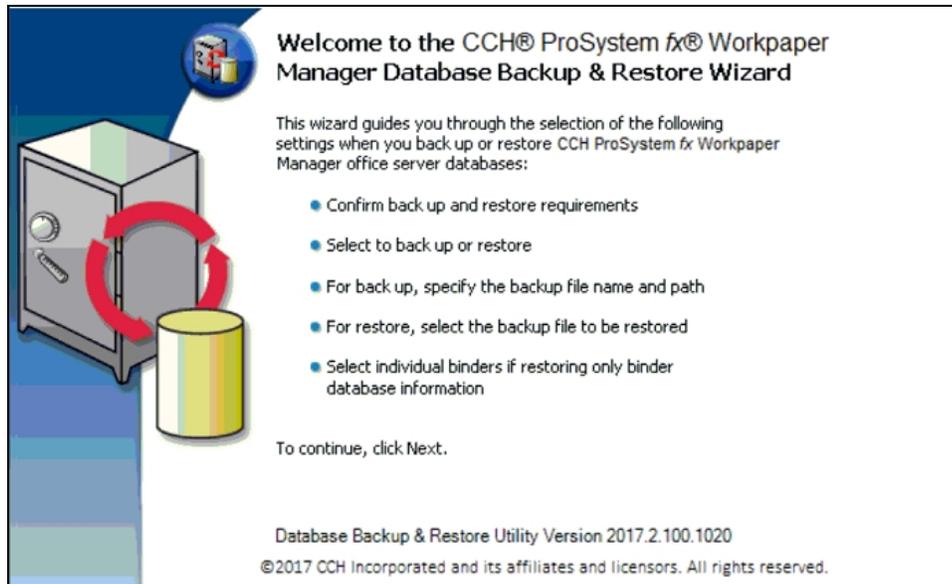
- When a database reaches 2.5 GB in size, a new database is created. If a new database is created after the full backup, then a full backup of this database will be completed as part of the differential database backup until the next full backup of all databases using the utility.
- When a full backup is performed on a database using a third party backup software after the full backup has been completed using the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility, then a full backup of this database will also be completed as part of the utility's differential backup until the next full backup of all databases using the utility.

## Running the Backup Utility (User Interface)

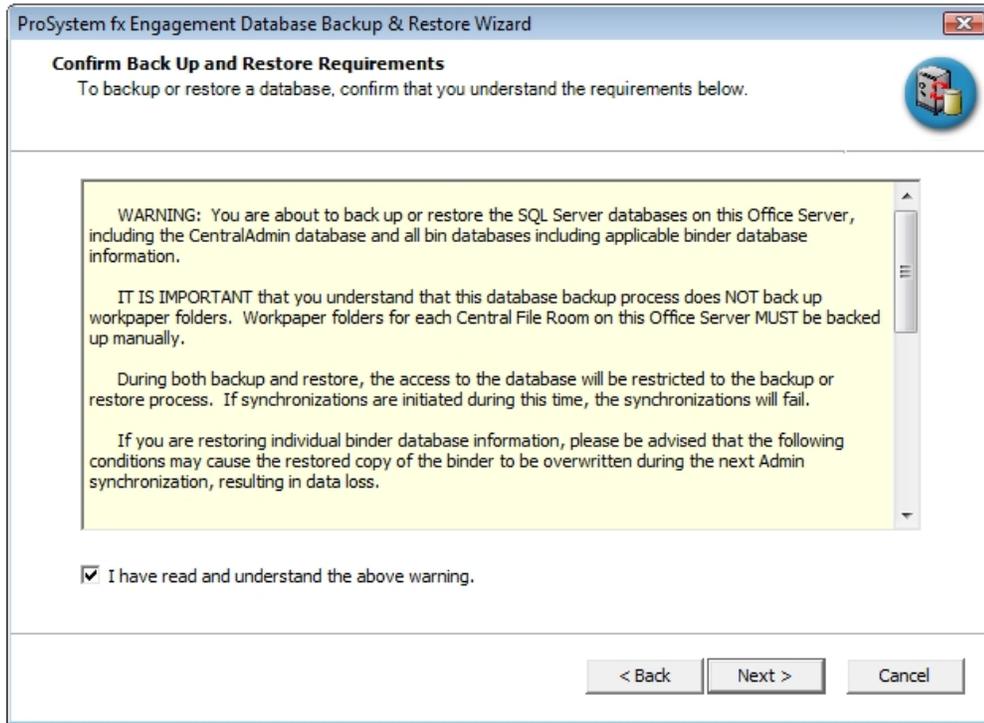
---

To run the Backup Utility in the user interface, do the following:

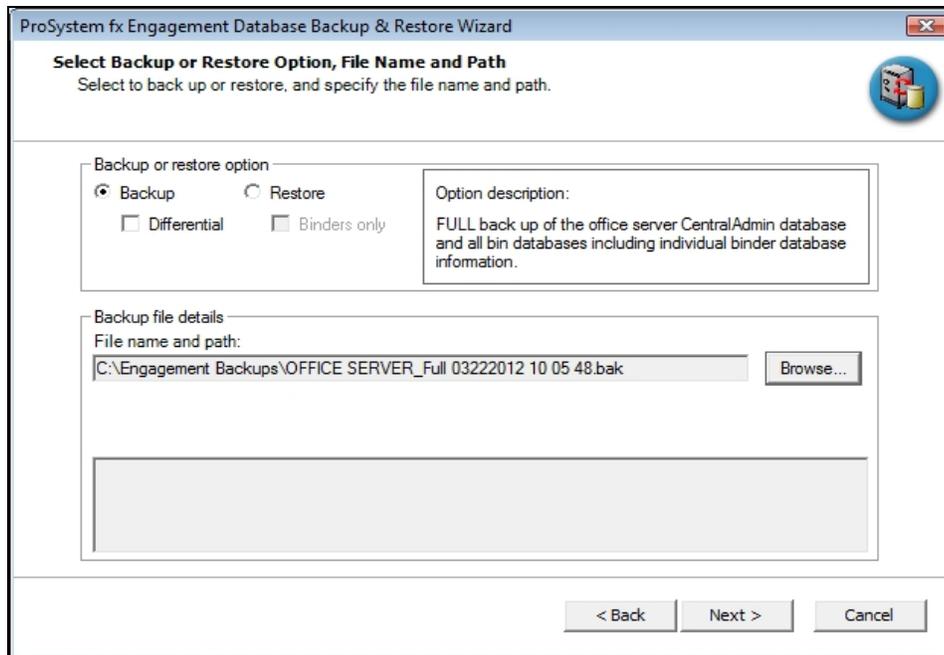
1. Launch the Database Backup & Restore Wizard by doing one of the following:
  - Select **Start > Programs > CCH ProSystem fx Workpaper Manager > Utilities > CCH ProSystem fx Workpaper Manager Database Backup & Restore Utility**.
  - In Windows® Explorer, browse to the X:\Pfx Engagement\Admin\Utilities\Backup Restore folder and double-click **BackupRestoreUtil.exe**.
2. Click **Next** on the Welcome dialog.



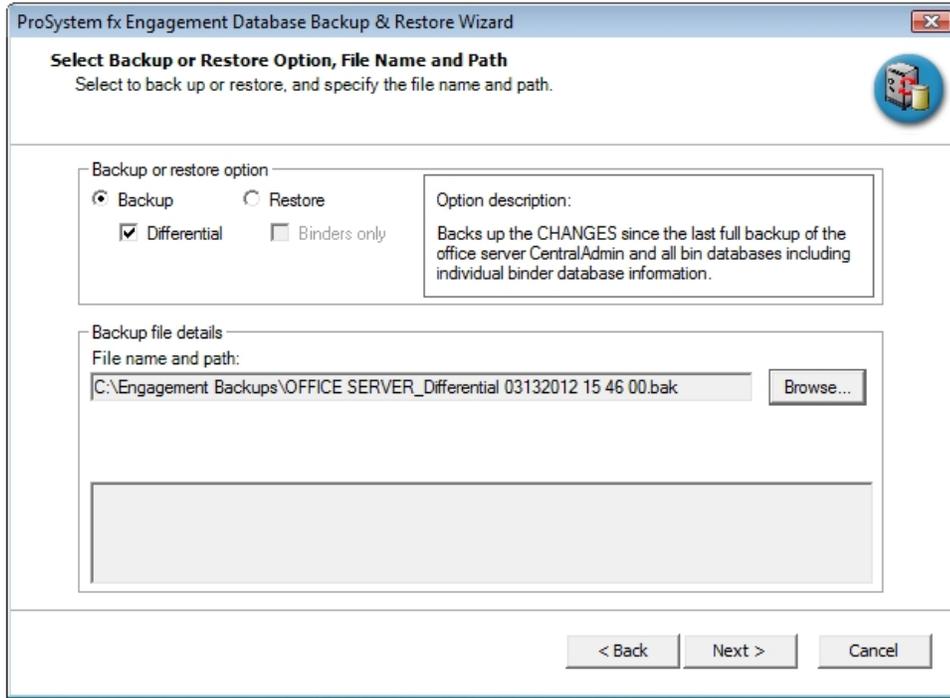
3. After you have read and understand the information regarding backup, check the box and click **Next**.



4. Select **Backup**.



 **Note:** If you have already completed a full backup and now want to perform a differential backup, select **Backup** and check the **Differential** box.



ProSystem fx Engagement Database Backup & Restore Wizard

**Select Backup or Restore Option, File Name and Path**  
Select to back up or restore, and specify the file name and path.

Backup or restore option

Backup     Restore

Differential     Binders only

Option description:  
Backs up the CHANGES since the last full backup of the office server CentralAdmin and all bin databases including individual binder database information.

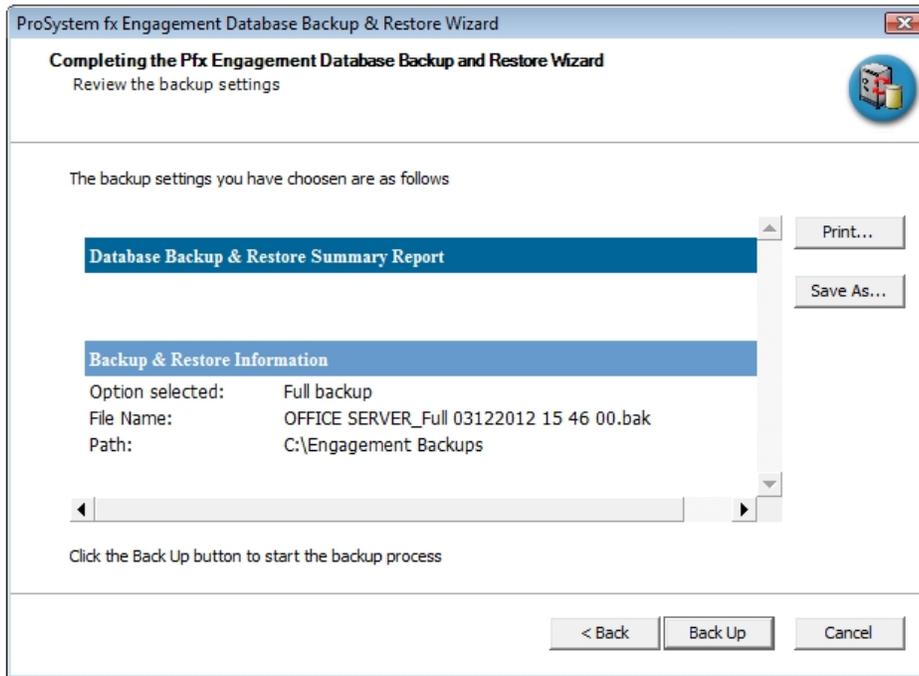
Backup file details

File name and path:  
C:\Engagement Backups\OFFICE SERVER\_Differential 03132012 15 46 00.bak    Browse...

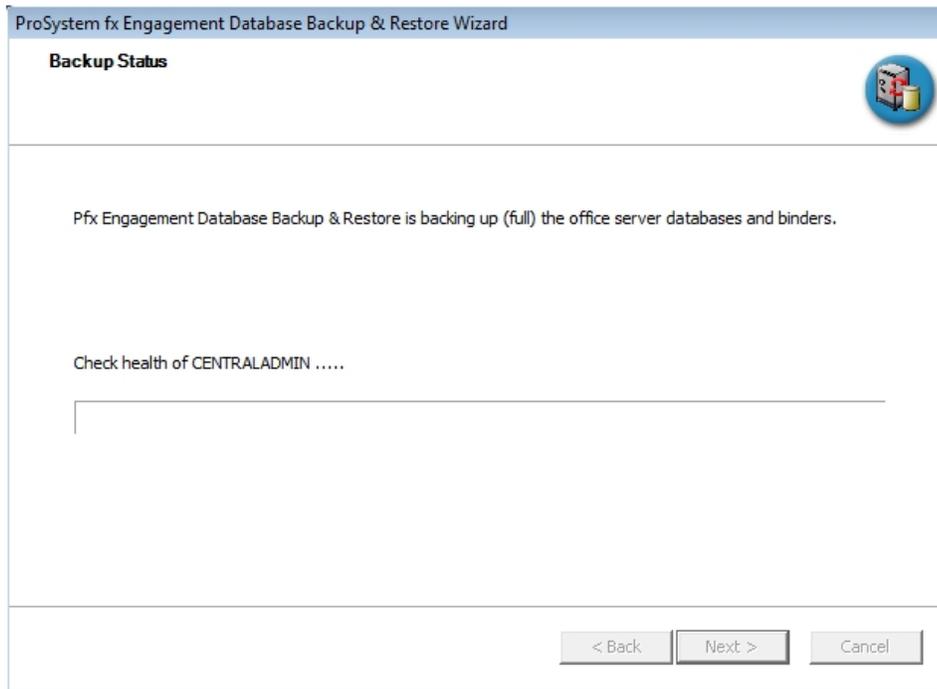
< Back    Next >    Cancel

5. Provide the location where the files are to be stored by clicking **Browse**. The selected location must be on a local drive/directory or a mapped network drive. If you select a mapped network drive, the user account under which the SQL Server® service is running must have credentials to write to that mapped network location.
6. Click **Next**.

7. Review the backup settings and click **Back Up** to begin the backup process.

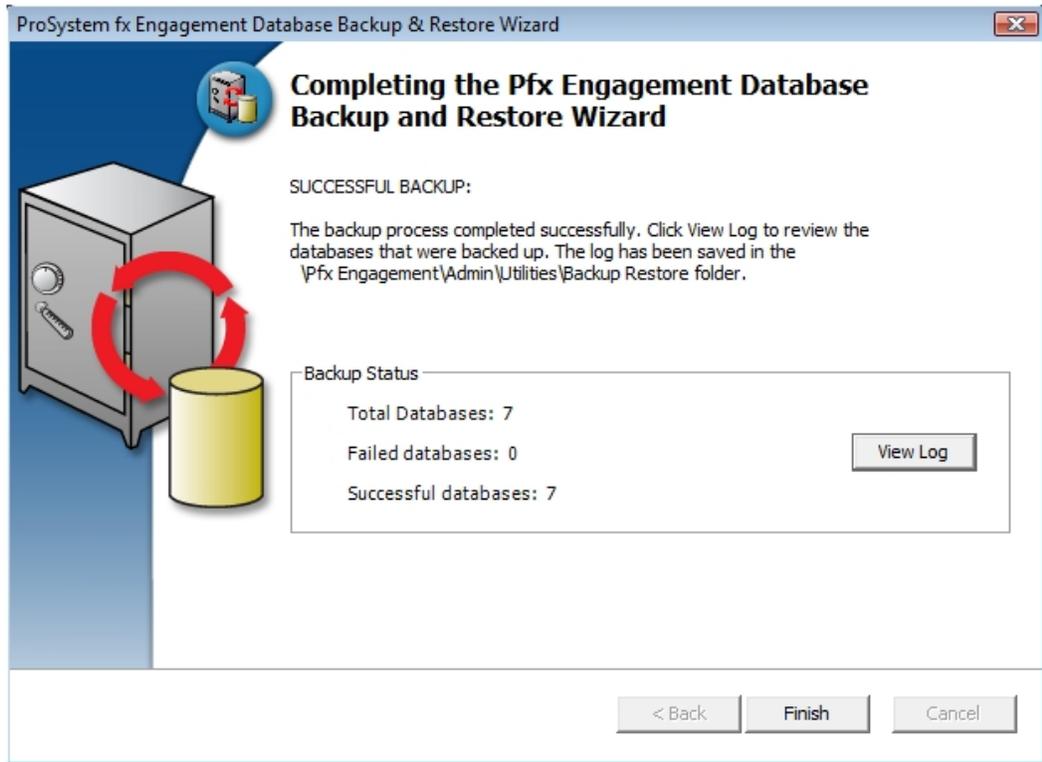


A progress indicator page will display to show you the progress of the backup.



Once complete, the *Completing the CCH Pfx Workpaper Manager Database Backup and Restore Wizard* page will display the number of databases that were successfully backed up and the number that failed to be backed up.

8. Click **View Log** to view a log detailing the backup information for each database.
9. Click **Finish** to exit the wizard.



 **Notes:**

- At the end of the process, only one .bak file will be created. This single file will contain the backups for all of the Office Server databases. The default name for the backup file is Office Server Name\_Full MMDDYYYY HH MM SS.bak.
- If your backup strategy includes differential backups, remember that you will need two backup files to restore the data: the differential backup file you want to restore and the full backup file that was the base for the differential backup.
- If a new bin is created as part of the bin maintenance in Workpaper Manager, after the latest full backup, when the differential backup is performed, the new database will be backed up in full as part of that backup.
- If one or more databases are backed in full using a third-party tool after the latest full backup completed with the utility, then those databases will be backed up in full as part of the differential backup performed by the utility.

## Running the Backup Utility (Task Scheduler)

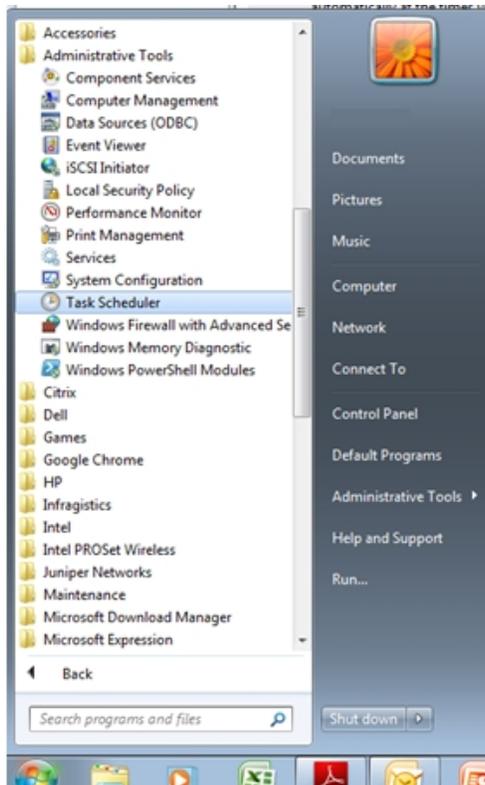
---

The following instructions assume you have agreed to the warning in step 3 above in the User Interface section.

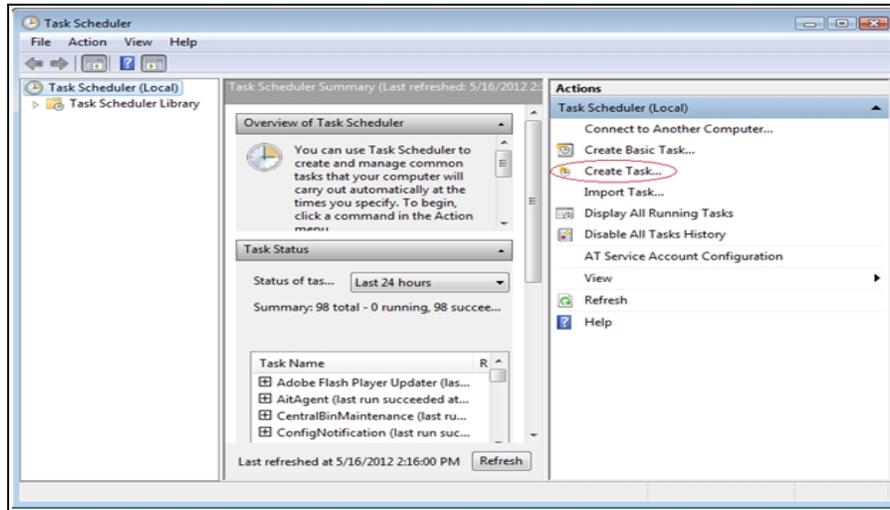
 **Note:** The following instructions are for Server 2008. Other supported operating systems have similar task scheduling options.

To run the Backup Utility using Task Scheduler, do the following:

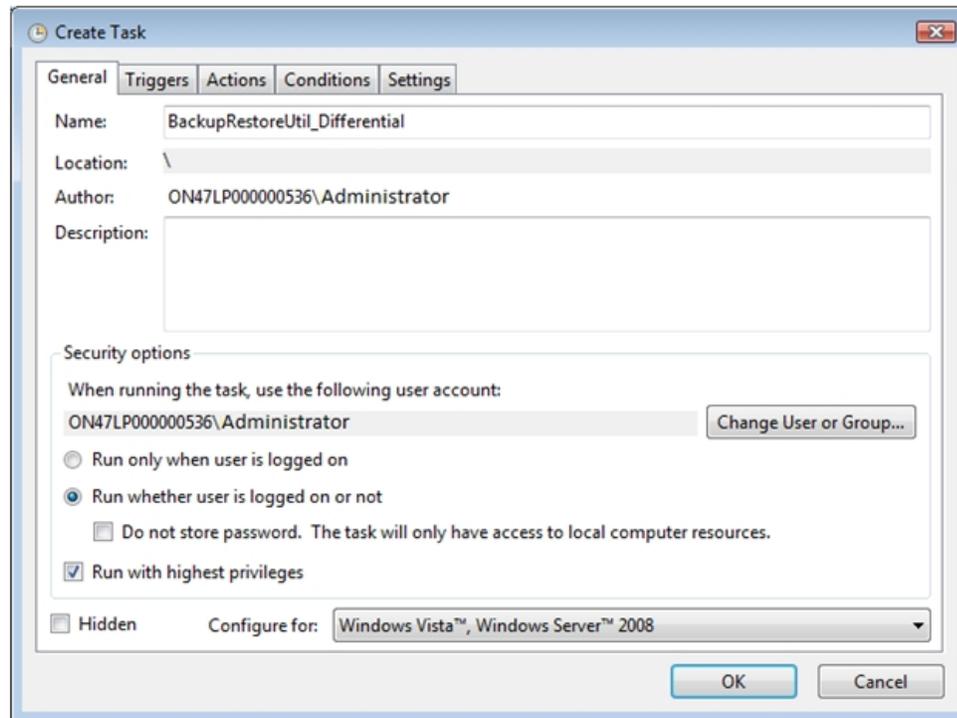
1. Open Task Scheduler.



2. Select **Create Task**.

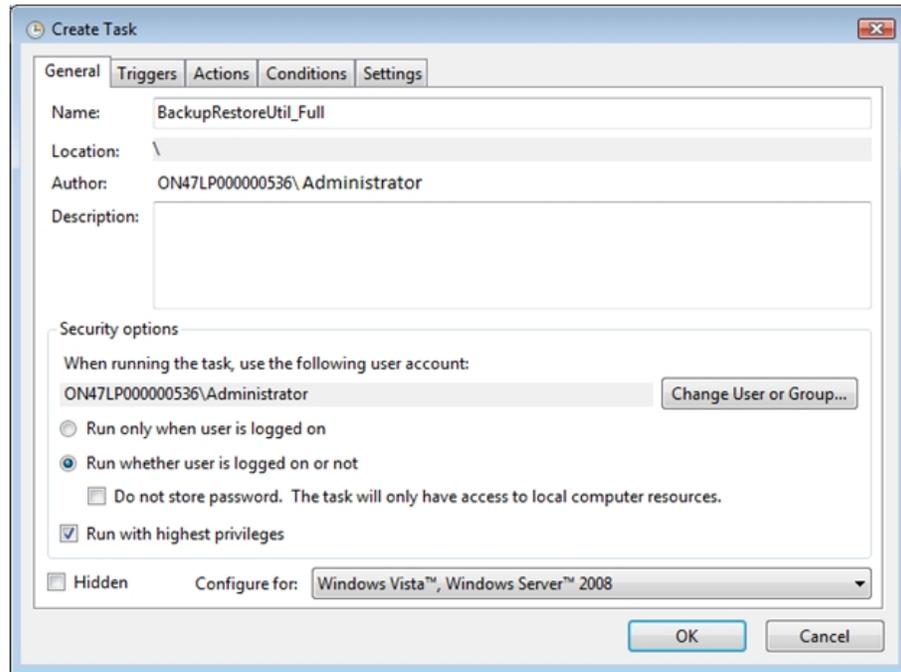


 **Note:** If you will be running differential backups, you should set up two scheduled tasks: one for the full backup, and another for the differential backup. When setting up the task for the differential backup, steps 5 and 7 will differ slightly.

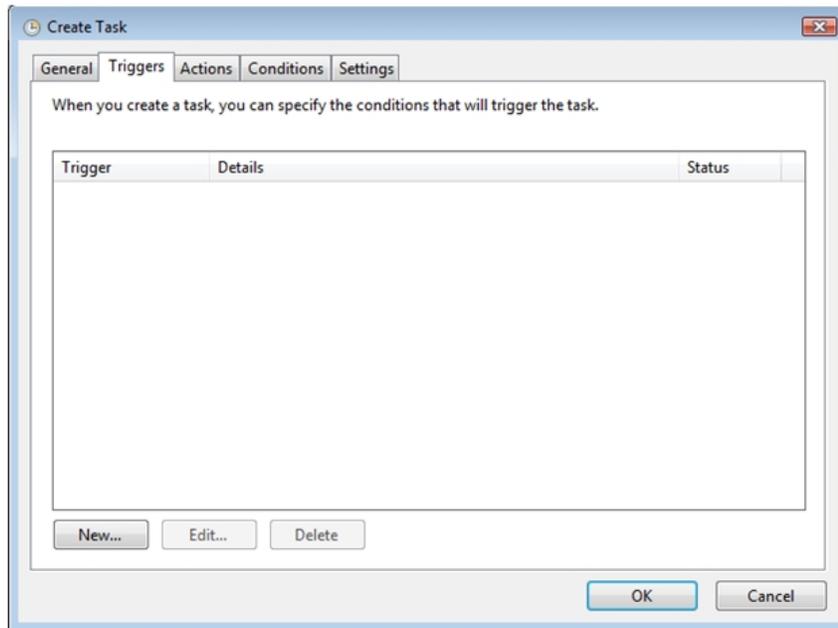


3. Create a task named BackupRestoreUtil on the *General* tab of the Create Task Wizard screen.
- Verify that the task is set to run as an Administrator of the server.
  - Choose Run whether user is logged on or not.

- c. Choose Run with highest privileges.



4. Go to the *Triggers* tab and click **New**.



5. On the *New Trigger* screen, set the desired schedule for the backup task to run and click **OK**.

**New Trigger**

Begin the task: On a schedule

Settings

One time

Daily

Weekly

Monthly

Start: 5/16/2012 4:00:00 AM  Synchronize across time zones

Recur every: 1 weeks on:

Sunday  Monday  Tuesday  Wednesday

Thursday  Friday  Saturday

Advanced settings

Delay task for up to (random delay): 1 hour

Repeat task every: 1 hour for a duration of: 1 day

Stop all running tasks at end of repetition duration

Stop task if it runs longer than: 3 days

Expire: 5/16/2013 2:33:18 PM  Synchronize across time zones

Enabled

OK Cancel

 **Note:** If you will be running differential backups, the settings for the trigger should be a little different for the full backup task and the differential backup task.

6. Select the *Actions* tab and click **New**.

**Create Task**

General Triggers **Actions** Conditions Settings

When you create a task, you must specify the action that will occur when your task starts.

Action	Details
--------	---------

New... Edit... Delete

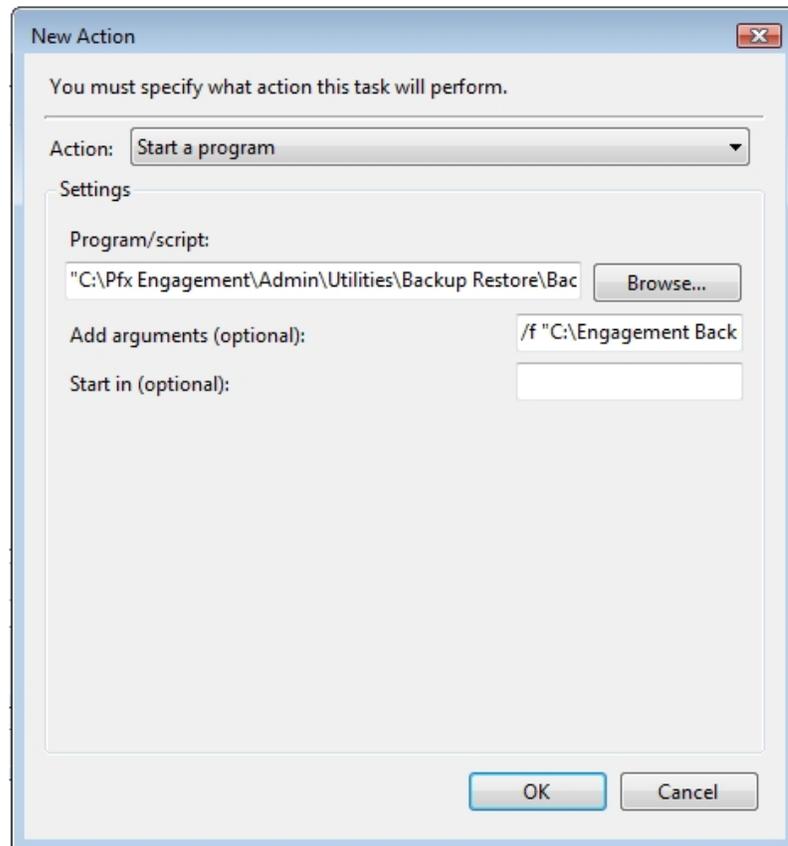
OK Cancel

7. On the *New Action* screen, verify the Action is set to **Start a program**.
  - a. Click **Browse** and navigate to X:\Pfx Engagement\ADMIN\Utilities\Backup Restore\BackupRestoreUtil.exe (where X represents the drive where the program is installed).



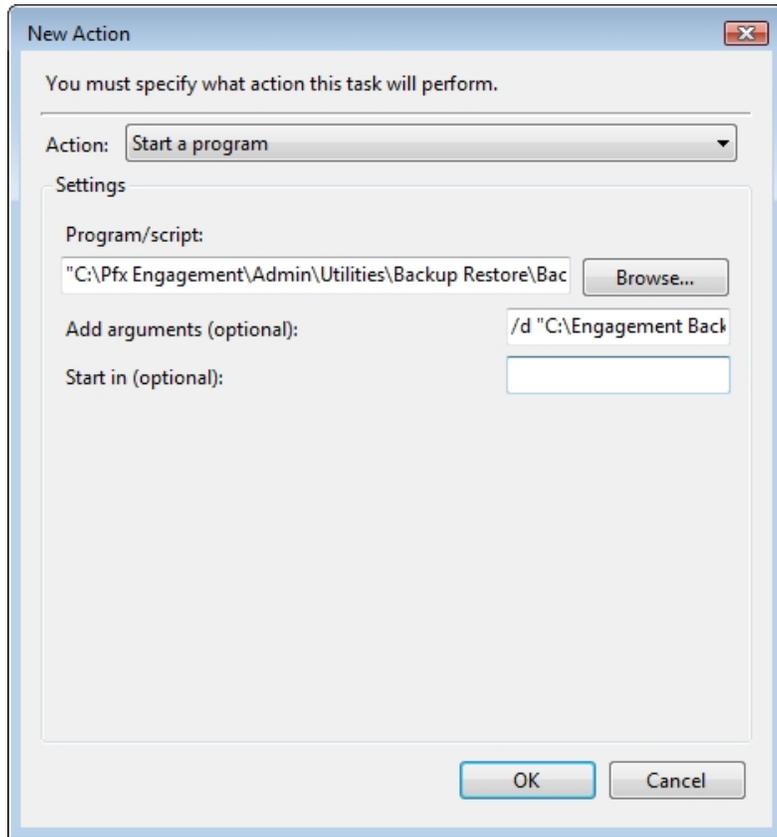
**Notes:**

- If the save location for the backup files is to be on a different machine, the path to the share must be a UNC path.
  - Also, the SQL Server® (PROFXENGAGEMENT) service must be set to run as an account that has full control rights to the shared location.
- b. In the *Add arguments (optional)* field, add the /f switch and the path information for the desired location to save the backup files. The path should include quotation marks if there are any spaces in the name.



 **Notes:**

- The command line parameter `/f` must be entered in lowercase. Using an uppercase `F` will result in an incomplete backup.
- If you are using the Task Scheduler for a **differential** backup, you should add the `/d` switch and path information for the desired location to save the backup files in the *Add arguments (optional)* field instead of `/f`.
- The path should include quotation marks (" ") if there are any spaces in the name.



New Action

You must specify what action this task will perform.

Action: Start a program

Settings

Program/script:  
"C:\Pfx Engagement\Admin\Utilities\Backup Restore\Bac Browse...

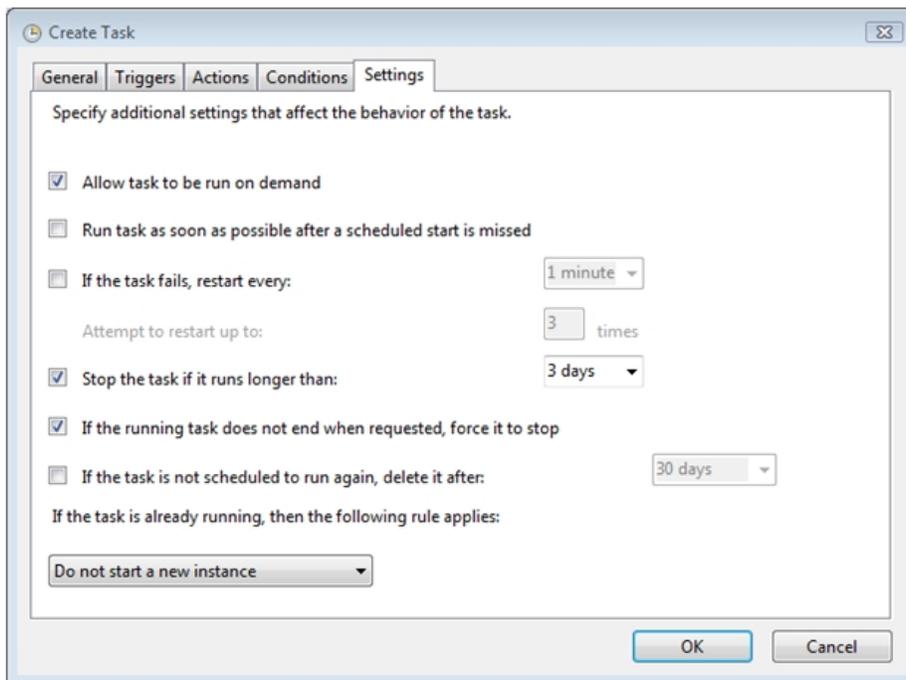
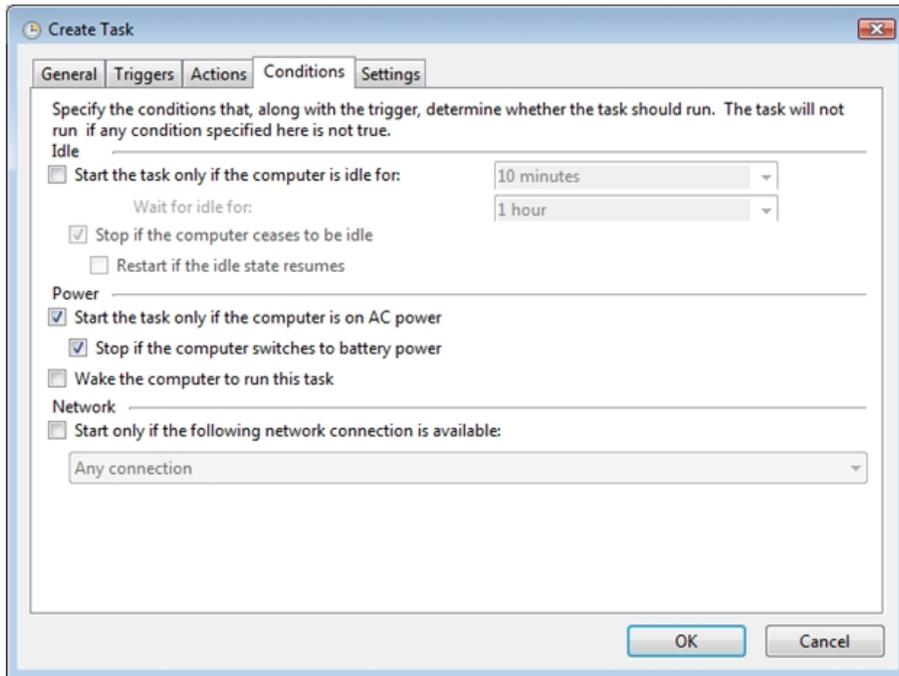
Add arguments (optional): /d "C:\Engagement Back

Start in (optional):

OK Cancel

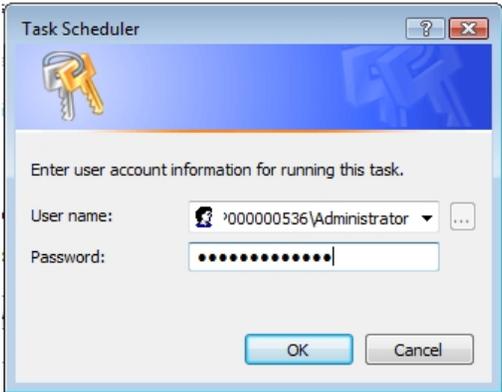
- c. Click **OK** to save the information.

8. Verify that the settings on the *Conditions* and *Settings* tabs are set to meet your needs.

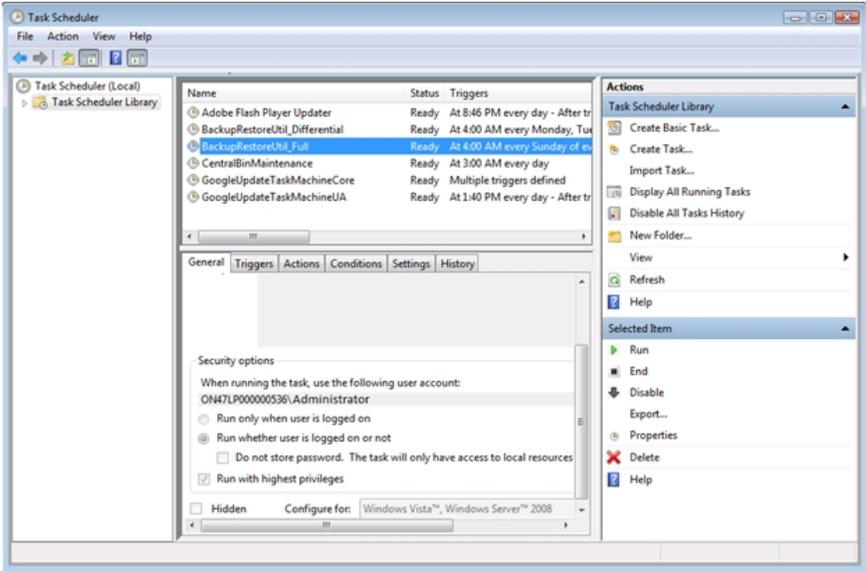


9. Click **OK** to save the information.

10. Provide the credentials for the account that the scheduled task is to run as.



11. The BackupRestoreUtil will appear listed in the Task Scheduler Library.



## Restore Considerations

---

Restore is a critical part of the disaster recovery process. Due to the nature of the application and the fact that the application document control relies on the database to ensure workpaper integrity, very specific restore procedures must be followed.

### Notes:

- While the restore process can be performed on your own, we strongly recommend you contact Workpaper Manager Customer Support before attempting to restore any data.
- When backing up to a network location, a user with rights to both the local computer and the network location must start the SQL instance.
- When restoring, ensure Windows® Updates or Windows® Module Installer Worker Service are not running. You may experience slow performance or errors if either of these are running in the background.

If a failure occurs while restoring a specific database or binder, that database/binder will be skipped and this information will be reported in a log file. The log file will be located in the same directory as the BackupRestoreUtil.exe with the default name of LogFileForBRMMDDYYYY - HH MM SS.txt.

The restore process will continue after such a failure occurs to ensure the remaining databases or binders are properly restored. Should a failure occur with a specific database or binder during the restore process, please contact Workpaper Manager Customer Support.

The following should also be considered when restoring databases or binders:

## Additional Files to Be Restored

This utility will restore the office server bin databases and the CentralAdmin database contained within the selected backup file. If selected, the utility can restore individual binder database information only. It will NOT restore the central file room workpapers or other files that were backed up separately. Those files must be restored separately.

To ensure a complete restore, the files in the following folders will need to be restored separately using your current restore methods. The files stored in these folders are not included in the backup that is generated by the CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility.

- Workpapers folder
- Admin Packages folder
- Archive folder
- Transition Binder Packages folder

 **Important:** It is imperative that the workpapers and SQL databases are restored and completed together and that no changes occur to either during the restore. When restoring individual binder database information, do not restore the workpapers for all binders in the database. Restore only the workpapers for the individual binder database information being restored.

## Disable Synchronization

We highly recommend you disable admin and binder synchronization before beginning the restore process. During the time of the restore process, synchronization will not be allowed. Users attempting to synchronize during this time will receive an error.

## Review Administrative Changes Since Last Backup

When restoring from backup, be aware that administrative changes may have occurred since this backup took place. If any of the following changes occurred since this backup, please contact Workpaper Manager Customer Support for assistance.

- Create or delete central file room
- Add, remove or reassign licenses
- Change workpaper location
- Workpapers checked in/out
- Add or remove staff members
- New binders synchronized to central file rooms

## Close CCH ProSystem *fx* Workpaper Manager Administrator

To run the Database Backup & Restore Utility, you must first close CCH ProSystem *fx* Workpaper Manager Administrator.

## Restoring from a Differential Backup File

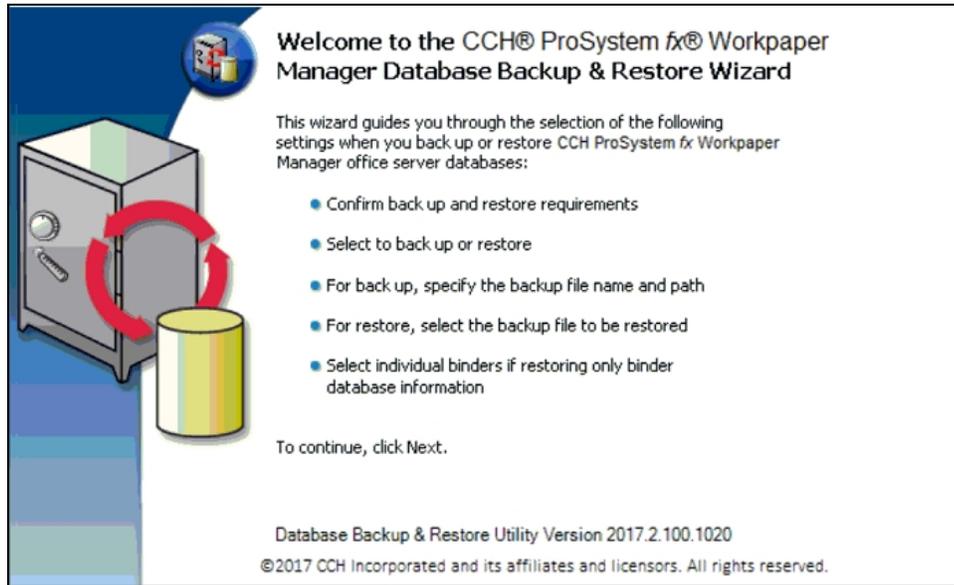
If you have chosen to perform differential backups as part of your backup strategy, you will need two backup files at restore time: the differential backup file that you want to restore and the full backup file that was the base for the selected differential backup (or the differential base).

## Running the Restore Utility (Restore All Office Server Databases)

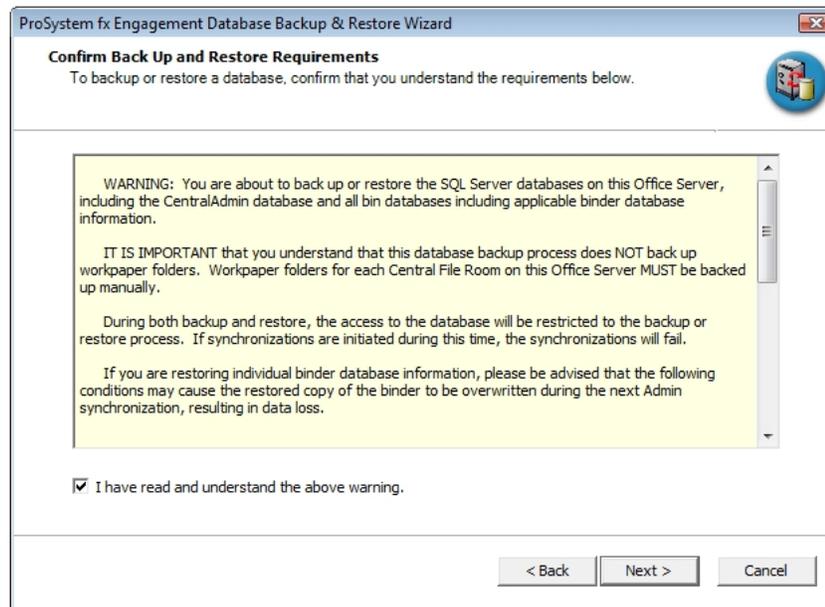
To restore all office server databases, do the following:

1. Launch the Database Backup & Restore Wizard by doing one of the following:
  - Select **Start > Programs > CCH ProSystem *fx* Workpaper Manager > CCH ProSystem *fx* Workpaper Manager Database Backup & Restore Utility**.
  - In Windows® Explorer, browse to the X:\Pfx Engagement\Admin\Utilities\Backup Restore folder and double-click **BackupRestoreUtil.exe**.

2. Click **Next** on the Welcome page.



3. After you have read and understand the information regarding restore, check the box and click **Next**.



4. Select **Restore**. Browse for the backup file [.bak] to be restored. The Office Server databases within the selected backup file will display in the list.

ProSystem fx Engagement Database Backup & Restore Wizard

**Select Backup or Restore Option, File Name and Path**  
Select to back up or restore, and specify the file name and path.

Backup or restore option

Backup  Restore

Differential  Binders only

Option description:  
Restores the CentralAdmin database and all bin databases including individual binder database information from the selected office server backup file.

Backup file details

File name and path:  
C:\Engagement Backups\OFFICE SERVER\_Full 03122012 15 46 00.bak

Server Name	DB Name	Date	Size
ON47LP000000536\PRO...	CENTRALADMIN	5/16/2012 1:51:38 PM	9
ON47LP000000536\PRO...	CENTRALBIN_1B8F030...	5/16/2012 1:51:40 PM	6

< Back    Next >    Cancel

**Note:** If the backup file selected is a differential backup, then you will also have to select the full backup file that was the base for the selected differential backup. A second text field and *Browse* button will be displayed allowing you to browse for the full backup file [.bak].

ProSystem fx Engagement Database Backup & Restore Wizard

**Select Backup or Restore Option, File Name and Path**  
Select to back up or restore, and specify the file name and path.

Backup or restore option

Backup  Restore

Differential  Binders only

Option description:  
Restores the CentralAdmin database and all bin databases including individual binder database information from the selected office server backup file.

Backup file details

File name and path:  
C:\Engagement Backups\OFFICE SERVER\_Differential 03132012 15 46 00.bak

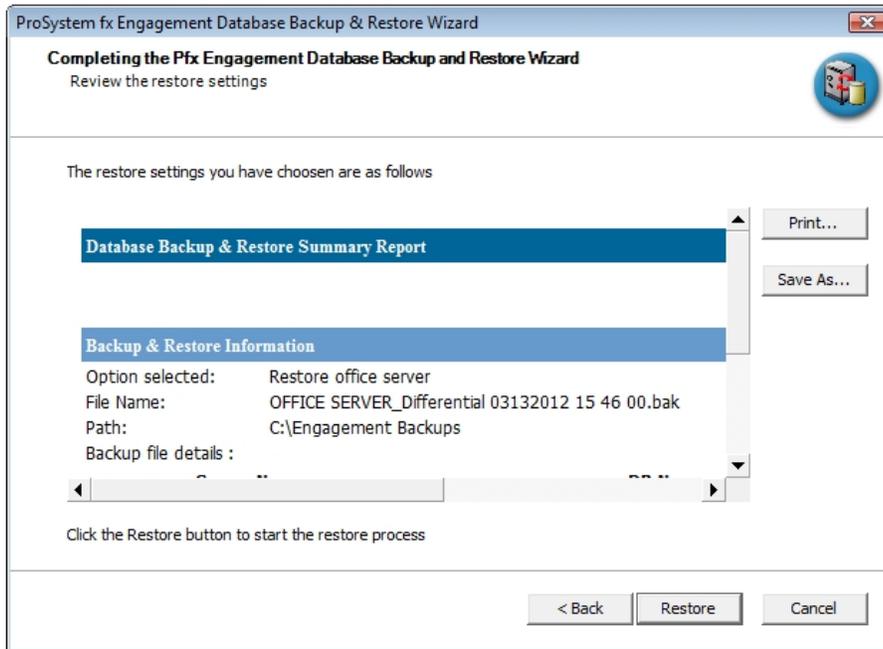
Full backup file name and path:  
C:\Engagement Backups\OFFICE SERVER\_Full 03122012 15 46 00.bak

Server Name	DB Name	Date	Size
ON47LP000000536\PRO...	CENTRALADMIN	5/16/2012 2:00:53 PM	8
ON47LP000000536\PRO...	CENTRALBIN_1B8F030...	5/16/2012 2:00:54 PM	3

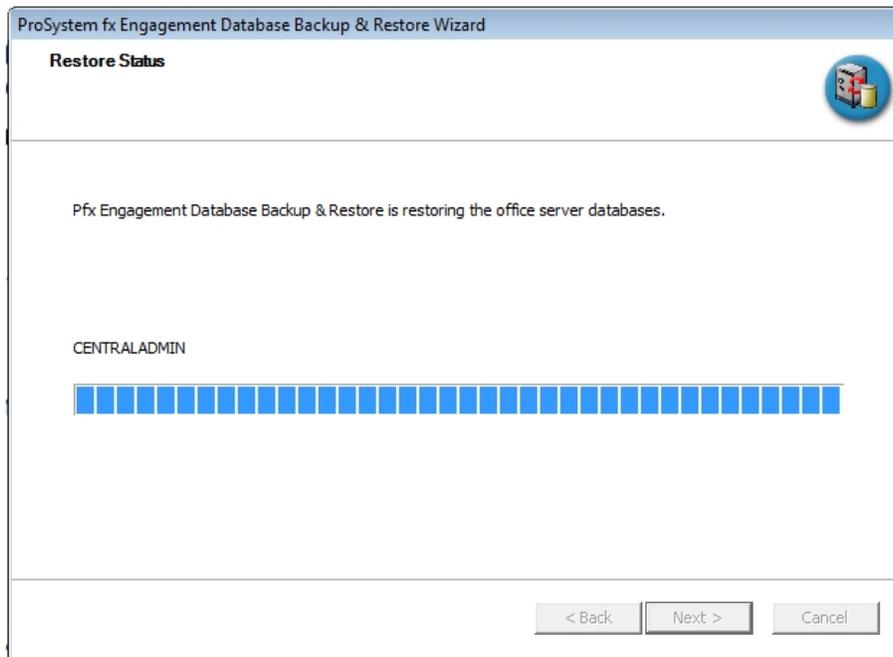
< Back    Next >    Cancel

5. Click **Next**.

- Review the restore settings and click **Restore**.



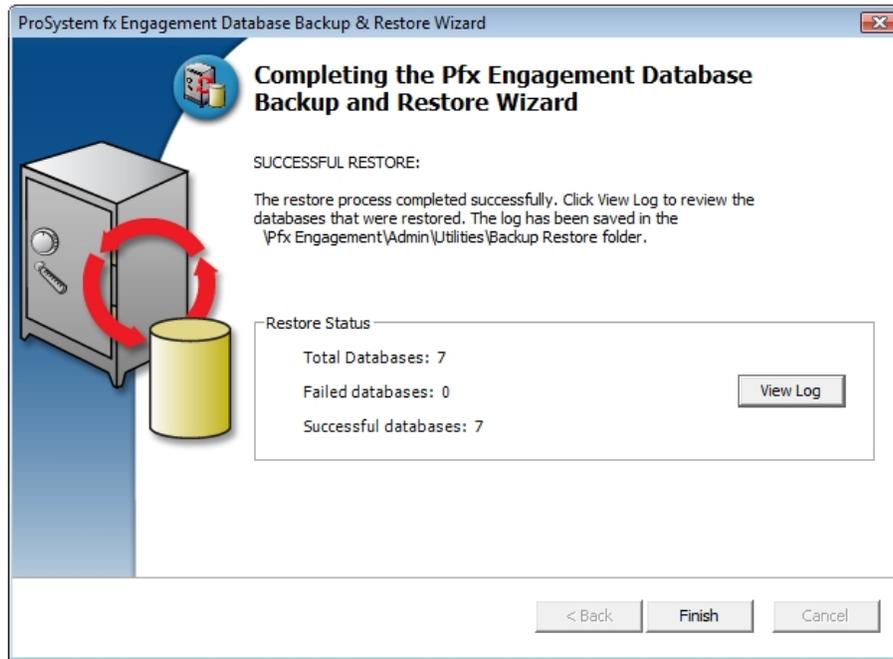
A progress indicator page displays the progress of the restore.



Once complete, the Database Backup & Restore Wizard Complete page will display the number of databases that were successfully restored and the number that failed to be restored.

- Click **View Log** to view a log detailing the restore information for each database.

8. Click **Finish** to exit the wizard.



## Running the Restore Utility (Restore Individual Binder Database Information)

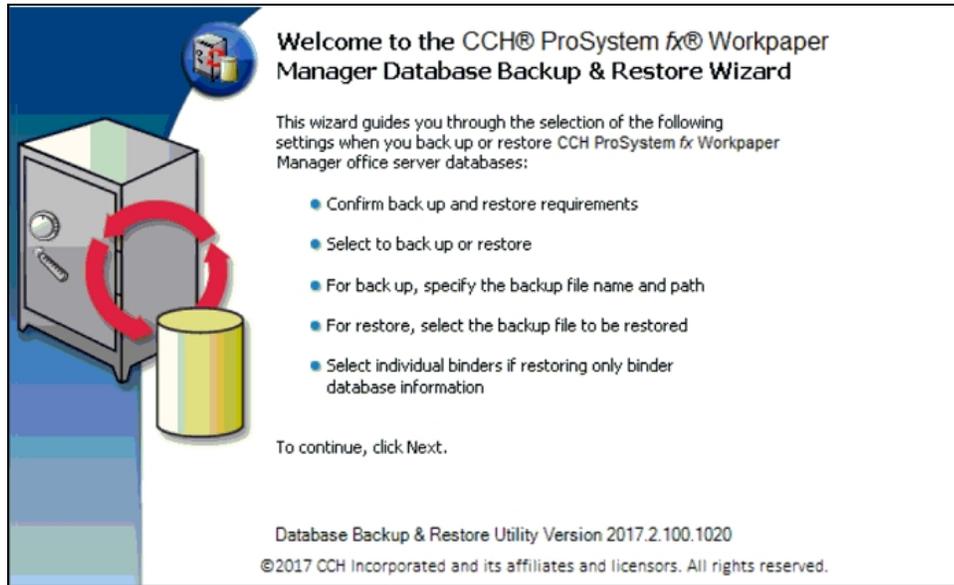
---

To restore individual binder database information, do the following:

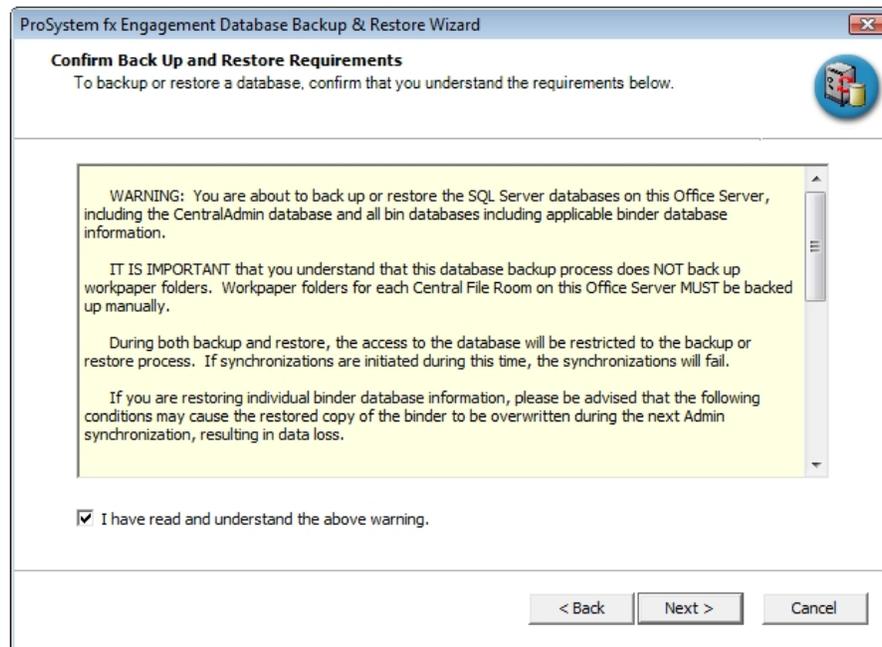
 **Note:** Due to the number of databases now included with Workpaper Manager, the restoration process for individual binders can take a long time to complete.

1. Launch the Database Backup & Restore Wizard by doing one of the following:
  - Select **Start > Programs > CCH ProSystem fx Workpaper Manager > CCH ProSystem fx Workpaper Manager Database Backup & Restore Utility**.
  - In Windows® Explorer, browse to the X:\Pfx Engagement\Admin\Utilities\Backup Restore folder and double-click **BackupRestoreUtil.exe**.

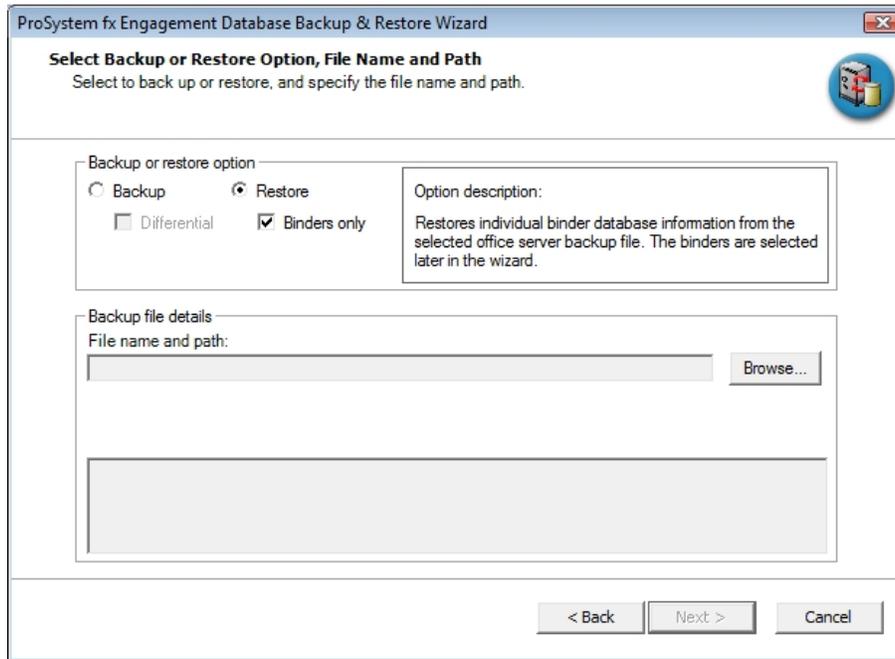
2. Click **Next** on the Welcome page.



3. After you have read and understand the information regarding restore, check the box and click **Next**.



4. Select **Restore** and check the **Binders only** box.

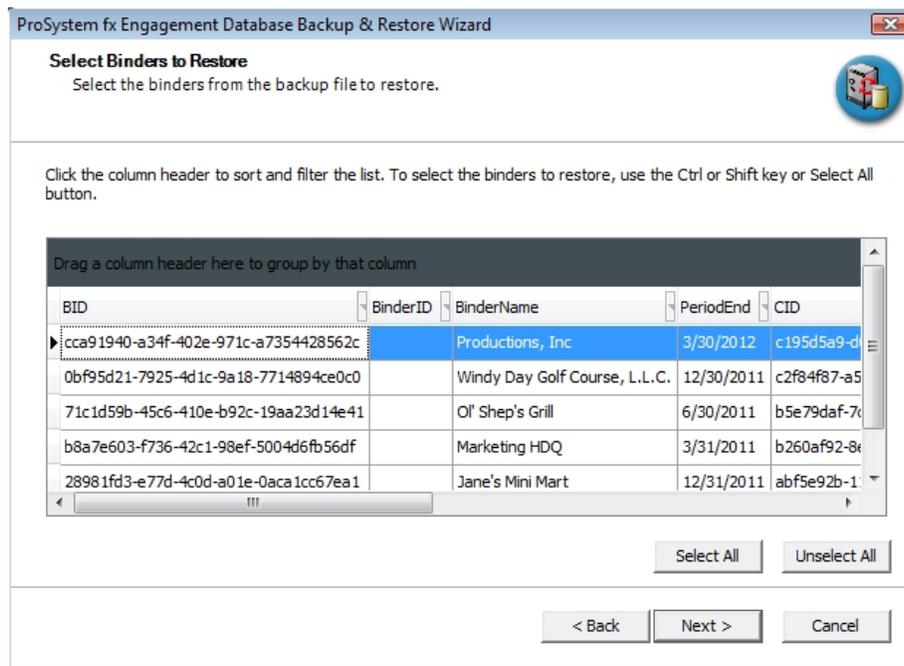


5. Browse for the backup file [.bak] from which to restore the binder database information. The Office Server databases within the selected backup file will display in the list.

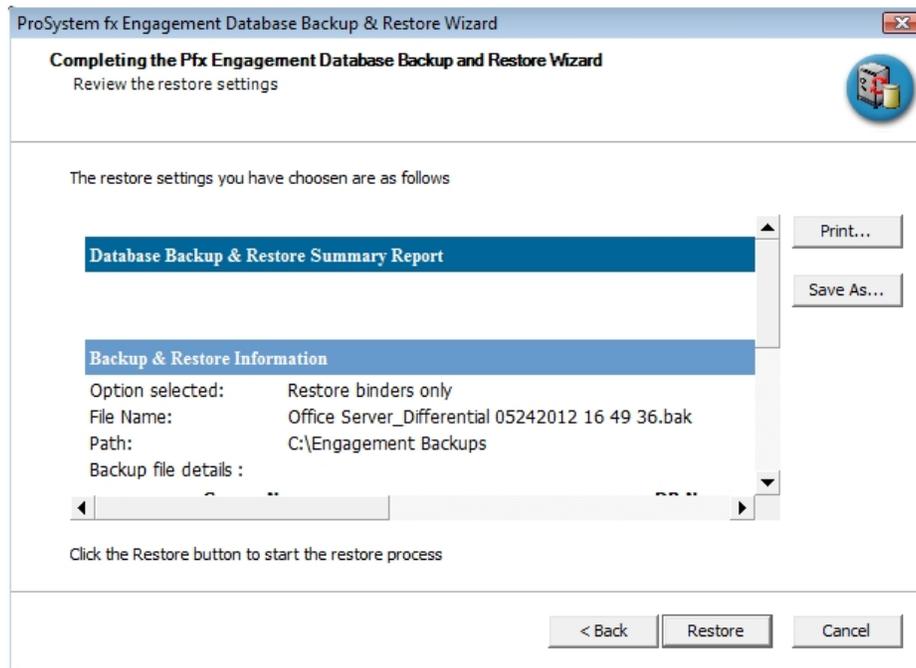
 **Note:** If the backup file selected is a differential backup, then you will also have to select the full backup file that was the base for the selected differential backup. A second text field and *Browse* button will be displayed allowing you to browse for the full backup file [.bak].

6. Click **Next**.

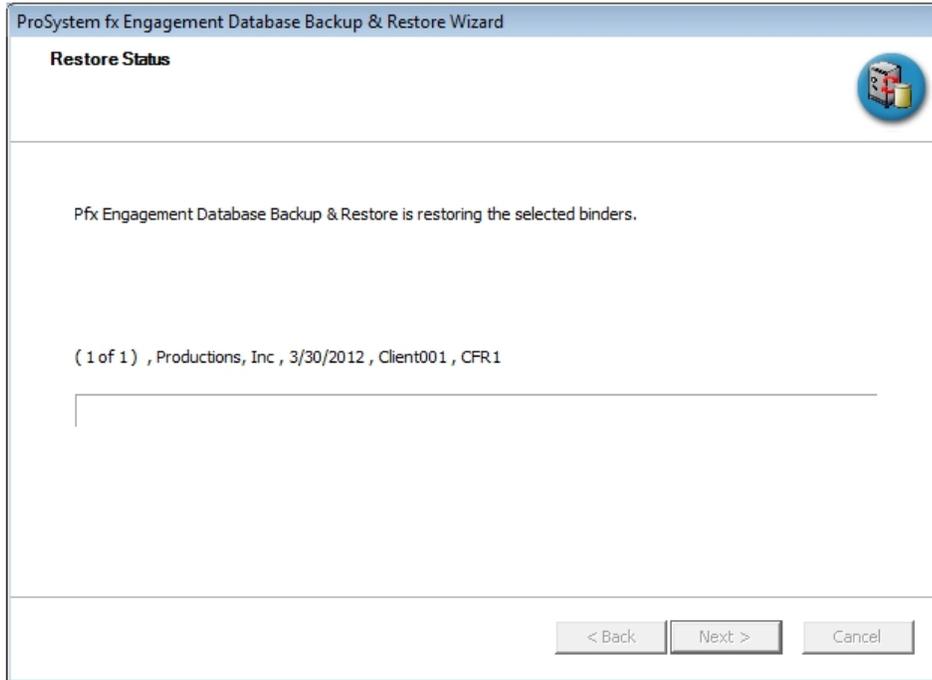
- Highlight the individual binder to be restored. To select multiple binders to restore, use the Ctrl or Shift key while highlighting the binders, or click the **Select All** button.



- Click **Next**.
- Review the restore settings and click **Restore**.



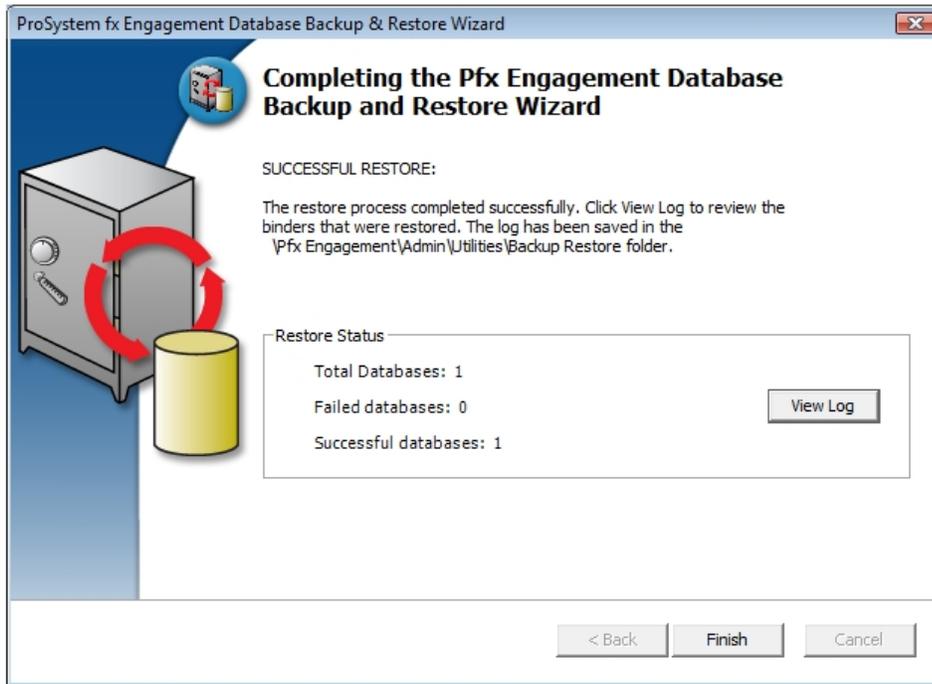
A progress indicator page displays the progress of the restore.



Once complete, the *Completing the CCH Pfx Workpaper Manager Database Backup and Restore Wizard* page will display the number of binders where the database information was successfully restored and the number that failed to be restored.

10. Click **View Log** to view a log detailing the restore information for each binder.

11. Click **Finish** to exit the wizard.



 **Note:** If users synchronized trial balance or Knowledge Coach data to the office server while the SQL databases were being backed up, the data will be included in the next backup that occurs.