

PCS Axis[®] v1.9 Upgrade Installation

Introduction

American Innovations (AI) is pleased to announce version 1.9 of our Pipeline Compliance System Axis[®] software (PCS Axis[®]). This document explains how to upgrade the PCS Axis database, application, and job service agent to version 1.9. The information applies to the following types of upgrade installations:

- Client/server installation (with and without replication)
- Subscription in a client/server network with replication (remote client)
- Single-user local installation in a non-client/server network

Topics in this document include those in the following list:

- PCS Axis Best Practices (page 2)
- Upgrading a Client/Server Installation of PCS Axis (page 9)
- Creating a Database Maintenance Job on the Server (page 17)
- *Upgrading a PCS Axis Subscription for a Remote Client* (page 18)
- Upgrading a Single-User Local Installation in a Non-Client/Server Network (page 22)
- Product Support and Training (page 28)

Information in this document is intended for the IT System Administrator or a person with a Windows Administrator user account. The person performing the upgrade must also be assigned the database role of DBO (database owner) to successfully upgrade the database when using PCS Axis Connection Manager. Database roles are assigned to SQL logins either by your company's IT System Administrator or Database Administrator.

IMPORTANT: The size of the database can influence the amount of time it takes to upgrade to v1.9.

If you have questions or need assistance with the upgrade installation, contact <u>PCS Technical Services</u> using the contact information on page 28.

May 2015



PCS Axis Best Practices

PCS Axis Best Practices is a series of topics demonstrating best practices for setting up the PCS Axis[®] database and related services on a network server running Microsoft[®] SQL Server[®] 2008 R2. Topics include those in the following list:

- Importing Large Amounts of Data in PCS Axis
- Running PCS Axis Job Service (page 2)
- Managing the PCS Axis Database (page 4)
- Running SQL Server (MSSQLServer) Service (page 7)

Importing Large Amounts of Data in PCS Axis

Index fragmentation may occur in the PCS Axis database after importing large amounts of data using Bridge Import, Bullhorn Bridge, or Field Computer. Index fragmentation can result in slow system performance. The list below identifies best practice methods that can prevent index fragmentation:

- Enable the option *Reindex after import* in the Bridge definition of a Bridge Import or Bullhorn Bridge. See <u>PCS Axis Help</u> for more information.
- Create a scheduled database maintenance job on the central database server using the *Reindex* Stored Procedure provided with the PCS Axis installation file. See Creating a Database Maintenance Job on the Server (page 17) for more information.

Note: SQL server maintenance jobs can only be created when running a full version of SQL server. SQL Server Express does not support this feature.

Running PCS Axis Job Service

Run the *PCS Axis Job Service* under a domain account or a SQL Server account with access to the server and PCS Axis database. To set up *PCS Axis Job Service*, follow these steps:

- Click the Windows Start button and navigate to Computer. Right-click Computer and select
 Manage in the shortcut menu to open the Computer Management console (Figure 1, page 3).
- 2 Double-click **Services and Applications** in the left pane of the console. Then click **Services** to display a list of services in the middle pane.



🔚 Computer Management							×
File Action View Help							
🗢 🔿 🞽 🖬 🗎 🔒 📘	2 🗊 🕨 🗉 🕪						
E Computer Management (Local	Services					Actions	
System Tools Task Scheduler	PCS Axis Job Service 1.9	Name	Description	Status	Startu ^	Services	-
Event Viewer		Real Controls	This service		Manu	More Actions	•
▶ 10 Shared Folders	Stop the service	🙀 PCS Axis Job Service 1.9	Monitors th	Started	Autor	BCS Avis Job Service 1.0	
Local Users and Groups	include and better	Reer Name Resolution Prot	Enables serv		Manu	PCS AXIS JOD SERVICE 1.5	-
Performance		Reer Networking Grouping	Enables mul		Manu	More Actions	•
🚔 Device Manager	Description: Monitors the PCS Avis job queue	Reer Networking Identity M	Provides ide		Manu		
⊿ 🔄 Storage	initiating jobs as they become	Performance Counter DLL	Enables rem		Manu		
Disk Management	available.	Performance Logs & Alerts	Performanc		Manu		
Services and Applications		Plug and Play	Enables a c	Started	Autor		
WMI Control		PnP-X IP Bus Enumerator	The PnP-X		Manu		
SOL Server Configuration		PNRP Machine Name Publi	This service		Manu E		
p 👩 ste server configurate		Portable Device Enumerator	Enforces gr		Manu		
		Power	Manages p	Started	Autor		
		Print Spooler	Loads files t	Started	Autor		
		Problem Reports and Soluti	This service	Charles of	Manu		
		Program Compatibility Assi	This service	Started	Autor		
		Cuslity Windows Audio Vid	Provides pr	Started	Manu		
		Realtek Audio Service	Eor coopera	Started	Autor		
		Remote Access Auto Conne	Creates a co	Starteu	Manu		
		Bamata Accore Connection	Managar di		Manu T		
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۰ III +	Extended Standard						

Figure 1. Computer Management Console

- **3** Right-click **PCS Axis Job Service 1.9** and select **Properties** in the shortcut menu to open the *Properties* dialog box (Figure 2, page 4).
- 4 Click the **Log On** tab and select the option **This account**.
- 5 Set up PCS Axis Job Service with a user account to log on as a service using a domain account or a SQL Server account with access to the server and PCS Axis database. Type the user name and password in the appropriate fields (*This account, Password, Confirm Password*). You can also view a list of appropriate user account by clicking *Browse > Advanced > Find Now*.

NOTE: The user account must be a member of the *Axis_Users* group and have access to the database server and PCS Axis database.

- 6 Click **Apply** and then **OK** to close the *Properties* dialog box and return to the *Computer Management* console.
- 7 Click **File** > **Exit** to close the *Computer Management* console.



PCS Axis Job Service 1.9 P	roperties (Local Computer)	×
General Log On Recov	very Dependencies	
Log on as:		
Local System account Allow service to intervice to intervice to intervice.	t teract with desktop	
This account:		Browse
Password:	•••••	
Confirm password:	•••••	
Help me configure user a	ccount log on options.	
	OK Cancel	Apply

Figure 2. PCS Axis Job Service 1.9 Properties

Managing the PCS Axis Database

Information in this section covers best practices for managing the PCS Axis database using Microsoft[®] SQL Server[®] Management Studio (SSMS). Topics include those in the following list:

- Setting the Database Owner
- Recommended Autogrowth Setting (page 5)

Setting the Database Owner

To prevent errors from occurring when migrating or restoring the PCS Axis database, or when establishing a connection, set the "Owner" of the database using the "sa" account. To set the database "Owner" follow these steps:

- Start SQL Server Management Studio (SSMS). Click Start > Microsoft SQL Server 2008 R2 > SQL Server Management Studio.
- 2 Double-click the **Databases** folder in *Object Explorer* to open the folder.
- **3** Right-click the **PCS Axis database** and select **Properties** in the shortcut menu to open the *Database Properties* dialog box (Figure 3, page 5).
- 4 Select Files in the Select a page navigation panel.



5 Type sa in the *Owner* field. Then click **OK** to save changes and close the dialog box.

间 Database Properties - PcsApp	Dev					
Select a page	🔄 Script 🔻 📑 Hel	þ				
Files Filegroups	Database name:		PcsAppDev			
Change Tracking	Owner:		sa			
Extended Properties	Use full-text index	king	•			
	Database files:					
	Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth	Path
	PcsAppDev_dat	Rows Data	PRIMARY	83	By 10 percent, unrest	c:\Program Files\Micro
	PcsAppDev_log	Log	Not Applicable	43	By 10 percent, restric	c:\Program Files\Micro
Connection						
Server: SERVERNAME\SQLEXPRES						
Connection: DOMAINname\user name						
Mew connection properties						
Progress						
Ready	•				Add	Remove
						OK Cancel

Figure 3. Database Owner

Recommended Autogrowth Setting

Information in this section applies to the PCS Axis database and log file. If you are running PCS Axis in a client/server network with synchronization, the information also applies to the publication and subscription databases.

Autogrowth indicates how much additional space is allocated when the PCS Axis database and log file require more space. Setting *Autogrowth* properties allow the PCS Axis database and log file to resize automatically based on a predetermined percentage. Because the database resizing process is a significant drain on computer resources, it is recommended that you set properties in a manner that does not allow the database to constantly resize itself.

NOTE: When using PCS Axis with synchronization, set *Autogrowth* properties after you create the publication and subscription databases.

To set *Autogrowth* properties for the database (*dat*) and log (*log*) files, follow these steps:

- **1** Start SSMS. Click **Start > Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.
- 2 Double-click **Databases** in *Object Explorer*.



- **3** Right-click the PCS Axis database and select **Properties** in the shortcut menu to open the *Database Properties* dialog box.
- 4 Click **Files** in the *Select a page* navigation panel (Figure 4).

间 Database Properties - PcsApp	Dev					
Select a page	Script 🝷 🚺 He	lp				
Files Filegroups	Database name:		PcsAppDev			
Change Tracking Permissions	Owner:	ána				
Extended Properties	Database files:	ung				
	Logical Name	File Type	Filegroup	Initial Size (MB)	Autoarowth	Path
Database _dat file 🕂	PcsAppDev_dat	Rows Data	PRIMARY	83	By 10 percent, unrestricted growth	c:\Program Files\Microso
Database log file	PcsAppDev_log	Log	Not Applicable	43	By 10 percent, restricted growth t	c:\Program Files\Microso
Connection						
Server: SERVERNAME\SQLEXPRES						
Connection: DOMAINname\user name						
View connection properties						
Progress						
Ready	•				Add	► Remove
						OK Cancel

Figure 4. Files - Database Properties

- **5** Complete the following steps to set *Autogrowth* properties for the database (*dat*) and log (*log*) files:
 - **a** Click the ... ellipsis button in the *Autogrowth* column of the database _*dat* file to open the *Change Autogrowth* dialog box (Figure 5, page 7).
 - **b** Click the **Enable Autogrowth** check box to place a check mark inside the check box.
 - **c** For the *File Growth* property setting, select the option **In Percent** and then type **10** in the adjacent field. This property setting automatically allocates 10% additional space when the database requires more space.
 - d Click **OK** to close the *Change Autogrowth* dialog box.



- e Repeat step 5 (page 6) for the database _log file.
- f Click **OK** to close the *Database Properties* dialog box. Then click **File** > **Exit** to exit SSMS.

Change Autogrowth for PcsApp	Dev_dat	×
☑ Enable Autogrowth		
File Growth		
In Percent		10 🖨
🔘 In Megabytes		10 🔺
Maximum File Size		
Restricted File Growth (MB)		100 📩
 Unrestricted File Growth 		
	ОК	Cancel

Figure 5. Change Autogrowth

Running SQL Server (MSSQLServer) Service

Run the Windows *SQL Server (MSSQLSERVER)* service under a domain account with access to the PCS Axis database. To set up the service, follow these steps:

- Click the Windows Start button (and navigate to Computer. Right-click Computer and select Manage in the shortcut menu to open the Computer Management console (Figure 6).
- 2 Double-click **Services and Applications** in the left pane of the console. Then click **Services** to display a list of services in the middle pane.

A Computer Management								×
File Action View Help						_		
🗢 🔿 🙍 🗊 😳 🙆 📓	• • • • • •							
Computer Management (Local)	O Services						Actions	
System Tools	SQL Server (MSSQLSERVER)	Name	Description	Status	Startup Type	*	Services	•
Services and Applications	o	Software Protection	Enables the downloa		Automatic (D.		More Actions	•
Internet Information Services	Pause the service	SPP Notification Service	Provides Software Lic		Manual		SOL Server (MSSOLSERVER)	
Services	Restart the service	SQL Active Directory Helper Service	Enables integration w		Automatic		Mars Anti-	
WMI Control		SQL Server (MSSQLSERVER)	Provides storage, pro	Started	Manual		More Actions	
SQL Server Configuration Ma	Description:	SQL Server (SQLEXPRESS)	Provides storage, pro	Started	Automatic			
	Provides storage, processing and	SQL Server Agent (MSSQLSERVER)	Executes jobs, monito	Started	Automatic			
	controlled access of data, and rapid	SQL Server Agent (SQLEXPRESS)	Executes jobs, monito		Automatic			
	transaction processing.	SQL Server Browser	Provides SQL Server c	Started	Automatic			
		SQL Server VSS Writer	Provides the interface	Started	Automatic			
		SSDP Discovery	Discovers networked	started	Manual			
		Storage Service	Enforces group policy		Manual			
		Superreton	Maintains and impro	Started	Automatic			
		Symantec Endpoint Protection	Provides virus-scanni	Started	Automatic			
		Symantec Event Manager	Event propagation an	Started	Automatic			
		Symantee Management Client	Charles communica	started	Disabled			
		Companies Settings Manager	Crecks that the com	Charles	Automatic			
		Custom Event Natification Service	Meniters surface and	Started	Automatic			
		C Tablet PC Input Service	Enables Tablet DC ne	Junco	Manual	_		
		C Task Scheduler	Enables a user to conf	Started	Automatic			
		C TCP/IP NetBIOS Helper	Provides support for t	Started	Automatic			
		C Telenhony	Provides Telephony A	otoriced	Manual	-		
		C. Themes	Provides user experie	Started	Automatic			
		C Thread Ordering Server	Provides ordered exec		Manual	-		
		C TPM Base Services	Enables access to the		Manual			
		UPnP Device Host	Allows UPnP devices		Manual			
		G User Profile Service	This service is respon	Started	Automatic			
		🐝 Virtual Disk	Provides managemen		Manual			
		Kolume Shadow Copy	Manages and implem		Manual			
		端 Web Management Service	The Web Manageme		Manual	Ļ		
		Ť.	-		•			
· · · · · ·	Extended / Standard /							
							,	

Figure 6. Computer Management Console



3 Right-click **SQL Server (MSSQLSERVER)** and select **Properties** in the shortcut menu to open the *Properties* dialog box (Figure 7).

SQL Server (MSSQLSER	VER) Properties (Local Computer)
General Log On Re	covery Dependencies
Log on as:	
Local System according to the service to the ser	unt interact with desktop
This account:	Network Service Browse
Password:	•••••
Confirm password:	•••••
Help me configure use	er account log on options.
	OK Cancel Apply

Figure 7. SQL Server (MSSQLSERVER) Properties

- 4 Click the **Log On** tab and select the option **This account**.
- 5 Set up SQL Server (MSSQLSERVER) with a user account to log on as a service using a domain account with access to the PCS Axis database. Type the user name and password in the appropriate fields (*This account, Password, Confirm Password*). You can also view a list of appropriate user account by clicking *Browse > Advanced > Find Now*.
- 6 Click **Apply** and then **OK** to close the *Properties* dialog box and return to the *Computer Management* console.
- 7 Click File > Exit to close the *Computer Management* console.



Upgrading a Client/Server Installation of PCS Axis

The procedure in this section explains how to upgrade the PCS Axis database, application, and job service agent in a client/server installation. Upgrading the database on the server is accomplished using *PCS Axis Connection Manager* during the upgrade of a client computer.

Topics in this section include those in the following list:

- PCS Axis v1.9 Download Package
- Upgrading to PCS Axis v1.9

PCS Axis v1.9 Download Package

Upgrading PCS Axis to v1.9 requires the download package provided by PCS Technical Services. Information in an email from PCS Technical Services identifies how to obtain and download a copy of the download package to your computer. If you need a copy of the download package, contact PCS Technical Services using the contact information on page 28.

The PCS Axis v1.9 download package includes the following files:

- PCS Axis v1.9 Installation File: Use this installation file (labeled PCSAxis_1.9.xx.exe) to install PCS Axis 1.9 on a 32- or 64-bit computer system. (The letters "xx" are used only as a placeholder to represent the actual numbers used in the name of the installation file.)
- Fill Factor Reset Script: This optional utility script (labeled Defrag Fill Factor Reset Post Deployment.SQL) is intended for your company's Database Administrator (DBA). During the upgrade of the PCS Axis database, the "fill factor limit" is set and the Reindex Stored Procedure (labeled dbo.DefragmentIndexes) installs in the database. If needed, the DBA can use the optional utility script to reset the "fill factor limit" after the database upgrade.

Upgrading to PCS Axis v1.9

The procedure in this section explains how to upgrade a client computer and the database on the database server to PCS Axis v1.9.

Complete the following steps:

- **1** Complete the following steps on the database server:
 - a Run Microsoft[®] SQL Server Management Studio (SSMS) and establish a connection to the PCS Axis database.
 - **b** Use SSMS to make a backup of the PCS Axis database. Exit SSMS when you finish.



2 If you are upgrading *PCS Axis v1.4* or earlier, uninstall PCS Axis on the client computer. Click the Windows 🚱 Start button, then click All Programs > PCS Axis 1.4 > Uninstall PCS 1.4.

Note: The upgrade process automatically uninstalls PCS Axis when upgrading a v1.5 or higher installation; manually uninstalling v1.5 or higher is no longer required. Upgrading a version previous to v1.5 does however require uninstalling the older version of PCS Axis.

- **3** Open the folder containing the PCS Axis 1.9 download package.
- 4 Double-click the PCS Axis installation file labeled **PCSAxis_1.9.xx.exe** to open the PCS Axis dialog box (Figure 8). The letters "xx" are used only as a placeholder to represent the actual numbers used in the name of the installation file.

🗒 PCS Axis	Setup	
SAX SAX	PCS Axis	
		Install Close

Figure 8. PCS Axis Installation

5 Click Install in the PCS Axis dialog box to open Setup Wizard (Figure 9).

NOTE: After clicking *Install* the PCS Axis installer verifies if Microsoft .NET Framework is installed on the computer. If .NET Framework is not installed, the PCS Axis installer automatically installs .NET Framework and then continues with the PCS Axis installation.

6 Click **Next** to read the *End-User License Agreement*. To accept the license agreement, click the check box **I accept the terms in the License Agreement** to place a check mark inside the check box.

B PCS Axis 1.9 Setup	
	Welcome to the PCS Axis 1.9 Setup Wizard The Setup Wizard will install PCS Axis 1.9 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	A M E R I C A N I N N O V A T I O N S Back Next Cancel

Figure 9. Setup Wizard



- 7 Click **Next** to display *Custom Setup* (Figure 10).
- 8 By default the PCS Axis application is selected for installation. The X PCS Axis Job Service should not be selected for installation. Verify selections in *Custom Setup* match those in the next figure (Figure 10).
- 9 Click Next and then click Install to upgrade the PCS Axis application on the client computer.



Figure 10. Custom Setup

- **10** When the installation completes and after a short delay, *PCS Axis Connection Manager* opens. Click **Close** to exit *PCS Axis Connection Manager*.
- **11** Complete the following steps to verify database/server connections and then upgrade the PCS Axis database to v1.9:
 - a Start *PCS Axis Connection Manager*. Click the Windows 🚱 Start button, then click All Programs > PCS Axis 1.9 > 🎇 PCS Axis Connection Manager 1.9 (Figure 11, page 12).

Note: *Server* and *Database* connection settings automatically carry forward when upgrading PCS Axis from a previous version of the software.



b Click ② **Test** to verify a connection to the PCS Axis database. When the message *Connection successful* displays, click **《 OK** to close the message.

Pcs Axis Connection Manager		
Pcs Axis Connection Manager	😫 Save and Close	ive 🛛 🔀 Close
Connections 💿 Default	🏫 Make Default	X Delete
☆ Default (Primary)		
V Primary	🛷 Activate 🔕 Test 🙆 Cre	ate / Upgrade
Server	MyServerName\sqlexpress	Sele Create Or Upgrade Database
Database	MyDatabaseName	🔯 Select
Connection String	Data Source=MyServerName\sqlexpress;Initial Catalog=MyDatabaseName;Integrated Security=True	Rt Correct
✓ Subscription	√ Activate 💿 Te	st 🖉 Clear
Server		Select
Database		ing Select
Connection String		State Correct

Figure 11. PCS Axis Connection Manager

- c If the PCS Axis database has previously been upgraded to v1.9, click Save and then click
 Close to exit PCS Axis Connection Manager. Continue the upgrade with step 12 (page 13).
- d Click 💮 Create / Upgrade to begin the database upgrade.

The *Create Or Update Database* window opens when the upgrade process begins (Figure 12, page 13). This window provides status information throughout the process. When the following message displays in the window, the database upgrade is complete:

Update completed.

- e Click 🔀 Close to close the Create Or Update Database window.
- **f** Click Close to exit *PCS Axis Connection Manager* and then click **Finish** in *Setup Wizard* to close the PCS Axis installation file.





Figure 12. Create Or Update Database

- **12** To verify the upgrade installation completed successfully, use the following steps to verify the PCS Axis application and database version is **1.9**:
 - a Start PCS Axis on the client computer. Click the Windows 😵 Start button, then click All Programs > 🎇 PCS Axis 1.9.
 - **b** Click **Help** > **About PCS Axis** to open the *About* window. Verify **Version 1.9** displays as shown in the following figure (Figure 13).

Note: Clicking *Copy To Clipboard* in the *About* window copies the following information to the Windows clipboard: database connection; application version; and build information (date and time). After copying information to the clipboard, you can then paste it in an email or other type of document, such as Microsoft[®] Word. Use this feature when contacting PCS Technical Services for support with PCS Axis.



Figure 13. About PCS Axis



- **13** Repeat steps 2 through 12 (pages 10-13) to upgrade all other client computers to *PCS Axis v1.9*.
- **14** After upgrading all client computers to v1.9, complete the following steps to upgrade *PCS Axis Job Service* on the network server:
 - **a** Open the folder containing the PCS Axis 1.9 download package.
 - **b** Double-click the PCS Axis installation file labeled **PCSAxis_1.9.xx.exe** to open the PCS Axis dialog box (Figure 8, page 10). The letters "xx" are used only as a placeholder to represent the actual numbers used in the name of the installation file.
 - c Follow on-screen prompts in *Setup Wizard*. When prompted to install *PCS Axis Job Service*, click the down arrow in PCS Axis Job Service 1.9 and select the option Entire feature will be installed on local hard drive.
 - **d** When the installation completes, click **Close** to exit *PCS Axis Connection Manager* and then click **Finish** in *Setup Wizard* to close the PCS Axis installation file.
- **15** If the *PCS Axis Job Service* and PCS Axis database are installed on different network servers, set up a user account to log on as a service in the following manner.

IMPORTANT: The user account must be a member of the local domain user group labeled *Axis_Users*. This user group was previously created by your IT Administrator when installing PCS Axis for the first time. For more information, see the section entitled *Adding the Local Domain User Group* in the AI document entitled *PCS Axis v1.9 Client/Server New Installation with Replication*.

- a Click the Windows 🚳 **Start** button and navigate to *Computer*. Right-click **Computer** and select **Manage** in the shortcut menu to open the *Computer Management* console (Figure 14, page 15).
- **b** Double-click **Services and Applications** in the left pane of the console. Then click **Services** to display a list of services in the middle pane.



🔠 Computer Management							×
File Action View Help							
🗢 🤿 🙎 🖬 🗐 🔒 🔒	2 🕞 🕨 🗉 🕩						
🜆 Computer Management (Local	Services					Actions	
System Tools Task Scheduler	PCS Axis Job Service 1.9	Name	Description	Status	Startu ^	Services	•
Event Viewer		🔍 Parental Controls	This service		Manu	More Actions	•
Shared Folders	Stop the service	🙀 PCS Axis Job Service 1.9	Monitors th	Started	Autor	DCS Avis Job Service 1.0	
Local Users and Groups	restore the service	🌼 Peer Name Resolution Prot	Enables serv		Manu	PCS AXIS JOD SERVICE 1.9	-
Performance		🌼 Peer Networking Grouping	Enables mul		Manu	More Actions	•
🚔 Device Manager	Description:	🌼 Peer Networking Identity M	Provides ide		Manu		
4 🔄 Storage	initiating jobs as they become	🌼 Performance Counter DLL	Enables rem		Manu		
🔛 Disk Management	available.	🌼 Performance Logs & Alerts	Performanc		Manu		
Services and Applications		🌼 Plug and Play	Enables a c	Started	Autor		
Services		🌼 PnP-X IP Bus Enumerator	The PnP-X		Manu		
MMI Control		🌼 PNRP Machine Name Publi	This service		Manu 😑		
SQL Server Configuration		🌼 Portable Device Enumerator	Enforces gr		Manu		
		🔍 Power	Manages p	Started	Autor		
		🌼 Print Spooler	Loads files t	Started	Autor		
		🌼 Problem Reports and Soluti	This service		Manu		
		🌼 Program Compatibility Assi	This service	Started	Autor		
		🌼 Protected Storage	Provides pr	Started	Manu		
		鵒 Quality Windows Audio Vid	Quality Win		Manu		
		🌼 Realtek Audio Service	For coopera	Started	Autor		
		🌼 Remote Access Auto Conne	Creates a co		Manu		
		Pomoto Accors Connection	Managar di		h h		
4 III >	Extended Standard						

Figure 14. Computer Management Console

- c Right-click **PCS Axis Job Service 1.9** in the middle pane (Figure 14) and select **Properties** in the shortcut menu to open the *Properties* dialog box (Figure 15).
- d Click the Log On tab in the *Properties* dialog box and select the option This account. To set up a user account to log on as a service, type the user name and password in the appropriate fields. You can also view a list of appropriate user accounts by clicking *Browse > Advanced > Find Now*.

Note: The user account must be a member of the *Axis_Users* group and have access to the central database server and PCS Axis database.

e Click **Apply** and then **OK** to close the *Properties* dialog box and return to the *Computer Management* console.

PCS Axis Job Service 1.9 P	roperties (Local Computer)	×
General Log On Reco	very Dependencies	
Log on as:		
Local System account Allow service to in	it teract with desktop	
This account:		Browse
Password:	•••••]
Confirm password:	•••••]
Help me configure user a	account log on options.	
	OK Cancel	Apply

Figure 15. PCS Axis Job Service 1.9 Properties



- **16** Complete the following steps in the *Computer Management* console to start *PCS Axis Job Service*:
 - a Select PCS Axis Job Service 1.9 and then click Start (Figure 16).
 - **b** Click **File** > **Exit** to close the *Computer Management* console.
 - **c** In PCS Axis, click **Tools** > **Job Service Viewer**. Verify the message *Running* displays in the *Status* field.

Action View Help						
Computer Management (Local)	O. Services					Actions
👔 System Tools	PCS Avis Job Sopriso 1.9	Name	Statur	Description	Startun Tune	Services
Storage	Tes has sob service 1.5	Network Store Interface Service	Started	This service delivers network notif	Automatic	More Actions
Services and Applications	Start the service	Office Source Engine	Starteu	Saves installation files used for up	Manual	More Actions
Internet Information Services (IIS) Mi		Office Software Protection Platform		Enables the download installatio	Manual	PCS Axis Job Service 1.
WMI Control	Description	Offling Filer		The Offline Files service performs	Dicabled	More Actions
SOL Server Configuration Manager	Monitors the PCS Axis job queue,	Parental Controls		This service is a stub for Windows	Manual	
g ste server configuration manager	initiating jobs as they become	PCS Avis Job Service 1.8		Monitors the PCS Avis job queue	Automatic	
	available.	Peer Name Resolution Protocol		Enables serverless peer name reso	Manual	
		Peer Networking Grouping		Enables multi-party communication	Manual	
		Peer Networking Identity Manager		Provides identity services for the	Manual	
		Performance Logs & Alerts		Performance Logs and Alerts Coll	Manual	
		Riug and Play	Started	Enables a computer to recognize	Automatic	
		PnP-X IP Bus Enumerator		The PnP-X bus enumerator servic	Manual	
		PNRP Machine Name Publication S		This service publishes a machine	Manual	
		Portable Device Enumerator Service		Enforces group policy for remova	Manual _	
		Q Power	Started	Manages power policy and power	Automatic	
		Rint Spooler	Started	Loads files to memory for later pri	Automatic	
		Reports and Solutions Con		This service provides support for	Manual	9
		Regram Compatibility Assistant Ser	Started	This service provides support for t	Manual	
		Revealed Storage		Provides protected storage for se	Manual	
		端 Quality Windows Audio Video Exper		Quality Windows Audio Video Exp	Manual	
		Remote Access Auto Connection M		Creates a connection to a remote	Manual	
		🌼 Remote Access Connection Manager		Manages dial-up and virtual priva	Manual	
		🧟 Remote Desktop Configuration		Remote Desktop Configuration se	Manual	
		🍓 Remote Desktop Services		Allows users to connect interactiv	Manual	
		🌼 Remote Desktop Services UserMode		Allows the redirection of Printers/	Manual	
		🧠 Remote Procedure Call (RPC)	Started	The RPCSS service is the Service C	Automatic	
		🧠 Remote Procedure Call (RPC) Locator		In Windows 2003 and earlier versi	Manual	
		🔍 Remote Registry		Enables remote users to modify re	Manual	
		Routing and Remote Access		Offers routing services to busines	Disabled	
		A PROF 1 1 1 14	<u></u>	D 1 00011 (11 00	A 4 10 1	

Figure 16. Computer Management Console

- 17 Notify the Database Administrator (DBA) the PCS Axis database has been upgraded to v1.9. The DBA can now schedule a database maintenance job on the server for the PCS Axis database. For more details see the next section entitled *Creating a Database Maintenance Job on the Server* (page 17).
- **18** The PCS Axis v1.9 upgrade is now complete. If you use PCS Axis replication to synchronize a subscription database (remote client), continue with the section *Upgrading a PCS Axis Subscription for a Remote Client* (page 18).



Creating a Database Maintenance Job on the Server

Information in this section is intended for the Database Administrator (DBA). The information applies to a client/server installation of PCS Axis.

Included in the v1.9 database upgrade is a new *Reindex Stored Procedure* labeled *dbo.DefragmentIndexes*. The purpose of the stored procedure is to prevent index fragmentation from occurring in the PCS Axis database, which in turn results in slow system performance. Index fragmentation may occur after importing large amounts of data in PCS Axis using *Bridge Import*, *Bullhorn Bridge*, or *Field Computer*.

After the database has been upgraded to v1.9, create a scheduled database maintenance job on the central database server using the *Reindex Stored Procedure*. Schedule the database maintenance job to run daily or once a week during an off-peak time. Scheduling the database maintenance job at regular intervals will ensure optimum system performance by reorganizing and defragmenting the indexes in the PCS Axis database. For more information about database maintenance, visit the Microsoft[®] website at http://technet.microsoft.com/en-us/library/ms187658(v=sql.105).aspx.

NOTE: A process included in the *Reindex Stored Procedure* sets the "fill factor limit" of the PCS Axis database. If you want to reset the "fill factor limit", use Microsoft SQL Server[®] Management Studio (SSMS) to run the optional utility script provided in the PCS Axis v1.9 download package. The optional utility script is labeled *Defrag Fill Factor Reset Post Deployment.SQL*.

After the PCS Axis database has been upgraded to v1.9, complete the following steps on the central database server:

- Start SQL Server Management Studio (SSMS). Click Start > All Programs > Microsoft SQL Server 2008 R2 > SQL Server Management Studio.
- 2 Use SSMS to create a scheduled database maintenance job for the PCS Axis database using the *Reindex Stored Procedure* labeled **dbo.DefragmentIndexes**. Set the job to run daily or once a week during an off-peak time.

IMPORTANT: AI recommends running the stored procedure daily or once a week during non-peak hours.

For a best practice guide in creating database maintenance jobs, visit the Microsoft website at <u>http://technet.microsoft.com/en-us/library/ms187658(v=sql.105).aspx</u>.

3 Exit SSMS.



Upgrading a PCS Axis Subscription for a Remote Client

Information in this section explains how to upgrade a subscription database on a remote client computer. If you are using PCS Axis in a client/server network with replication, the PCS Axis database on the central database server must first be upgraded before completing the instructions in this section. If needed, see *Upgrading a Client/Server Installation of PCS Axis* (page 9) for more information.

Upgrading a subscription includes the following tasks:

- Synchronize the subscription database with the PCS Axis database on the central database server. The synchronization process upgrades the subscription database to v1.9.
- Upgrade the PCS Axis application using the installation file provided in a download package from PCS Technical Services. For more information about the download package, see PCS Axis v1.9 Download Package (page 9).

Complete the following steps:

- **1** Synchronize the subscription database with the publication database as follows:
 - a Start PCS Axis. Click the Windows 🚳 Start button, then click All Programs > 🏰 PCS Axis 1.9.
 - **b** Click **Tools** in the main menu and then select **Synchronize Now**.

NOTE: The synchronization process upgrades the subscription database. When the process completes, a message displays stating the database is at a higher version than the application and then PCS Axis shuts down.

2 If you are upgrading *PCS Axis v1.4* or earlier, uninstall PCS Axis. Click the Windows 🚭 Start button, then click All Programs > 👫 PCS Axis 1.4 > Uninstall PCS 1.4.

Note: The upgrade process automatically uninstalls PCS Axis when upgrading a v1.5 or higher installation; manually uninstalling v1.5 or higher is no longer required. Upgrading a version previous to v1.5 does however require uninstalling the older version of PCS Axis.



- **3** Complete the following steps to install the PCS Axis v1.9 application:
 - **a** Open the folder containing the PCS Axis 1.9 download package.
 - **b** Double-click the installation file labeled **PCSAxis_1.9.xx.exe** to open the PCS Axis dialog box (Figure 17). The letters "xx" are used only as a placeholder to represent the actual numbers used in the name of the installation file.

PCS Axis	Setup	
SAX SAX	PCS Axis	
		Install Close

Figure 17. PCS Axis Installation

c Click Install in the PCS Axis dialog box to open Setup Wizard (Figure 18).

Note: After clicking *Install* the PCS Axis installer verifies if Microsoft .NET Framework is installed on the computer. If .NET Framework is not installed, the PCS Axis installer automatically installs it and then continues with the PCS Axis installation.



Figure 18. Setup Wizard



- **d** Click **Next** to display *Custom Setup* (Figure 19).
- e By default the PCS Axis application is selected for installation. The X PCS Axis Job Service should not be selected for installation. Verify selections in Custom Setup match those in the next figure (Figure 19).
- f Click Next and then click Install to upgrade the PCS Axis application.

谩 PCS Axis 1.9 Setup	
Custom Setup Select the way you want features to be installed.	a
Click the icons in the tree below to change the wa	y features will be installed.
PCS Axis PCS Axis Job Service	PCS Axis graphical application for end users
	This feature requires 169MB on your hard drive.
	Browse
Reset Disk Usage	Back Next Cancel

Figure 19. Custom Setup

- 4 When the installation completes and after a short delay, *PCS Axis Connection Manager* opens. Click Close to exit *PCS Axis Connection Manager*.
- **5** Complete the following steps to verify a connection to the subscription database:
 - a Start *PCS Axis Connection Manager*. Click the Windows 🕙 **Start** button, then click **PCS Axis 1.9** > **MS PCS Axis Connection Manager 1.9** (Figure 20, page 21).
 - **b** Click O **Test** in the *Subscription* group box to verify a connection to the subscription database.
 - c When the message *Connection successful* displays, click **V** ok to close the message. Then click **Close** to exit *Connection Manager*.
- 6 Repeat steps 1 through 5 (pages 18-20) to upgrade all other subscriptions to PCS Axis v1.9.

The subscription upgrade installation is now complete.



Pcs Axis Connection Manager			
Pcs Axis Connection Manager		🖼 Save and Close 🗄 Sa	ve 🛛 🔀 Close
Connections	Default	😭 Make Default	🔀 Delete
A peranir (2002cubrion)	🗹 Primary	🖌 Activate 🙆 Test 🎯 Crea	ite / Upgrade
	Server	MyServerName	🏭 Select
	Database	MyDatabaseName	🎆 Select
	Connection String	Data Source=MyServerName;Initial Catalog=MyDatabaseName;Integrated Security=True	
			Correct
	✓ Subscription	🗸 Activate 🔕 Tes	st 🧈 Clear
	Server	LocalComputerName\SQLServerInstanceName	闘 Select
	Database	SubscriptionDatabaseName	📑 Select
	Connection String	Data Source=LocalComputerName\SQLServerInstanceName; Initial Catalog=SubscriptionDatabaseName;Integrated Security=True	Correct
			1
<u> </u>	r		

Figure 20. Connection Manager



Upgrading a Single-User Local Installation in a Non-Client/Server Network

The procedure in this section explains how to upgrade a local installation of PCS Axis for a single-user in a non-client/server network. The process upgrades the PCS Axis database, application, and job service agent to v1.9.

Upgrade the PCS Axis application and database using the installation file provided in a download package from PCS Technical Services. For more information about the download package, see *PCS Axis v1.9 Download Package* (page 9).

Complete the following steps:

- **1** Make a backup of the PCS Axis database using the following steps:
 - a Run Microsoft SQL Server Management Studio (SSMS) and establish a connection to the PCS Axis database.
 - **b** Use SSMS to make a backup of the PCS Axis database. Exit SSMS when you finish.
- 2 If you are upgrading *PCS Axis v1.4* or earlier, uninstall PCS Axis. Click the Windows Start button, then click All Programs > PCS Axis 1.4 > Uninstall PCS 1.4.

Note: The upgrade process automatically uninstalls PCS Axis when upgrading a v1.5 or higher installation; manually uninstalling v1.5 or higher is no longer required. Upgrading a version previous to v1.5 does however require uninstalling the older version of PCS Axis.

- **3** Open the folder containing the PCS Axis 1.9 download package.
- **4** Double-click the PCS Axis installation file labeled **PCSAxis_1.9.xx.exe** to open the PCS Axis dialog box (Figure 21). The letters "xx" are used only as a placeholder to represent the actual numbers used in the name of the installation file.

B PCS Axis	Setup		
UAX IS	PCS Axis		
		Install	Close

Figure 21. PCS Axis Installation



5 Click Install in the PCS Axis dialog box to open Setup Wizard (Figure 22).

Note: After clicking *Install* the PCS Axis installer verifies if Microsoft .NET Framework is installed on the computer. If .NET Framework is not installed, the PCS Axis installer automatically installs it and then continues with the PCS Axis installation.

6 Click **Next** to read the *End-User License Agreement*. To accept the license agreement, click the check box **I accept the terms in the License Agreement** to place a check mark inside the check box.

闄 PCS Axis 1.9 Setup	
	Welcome to the PCS Axis 1.9 Setup Wizard
₿ AX IS	The Setup Wizard will install PCS Axis 1.9 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	A M E R I C A N I N N O VATIONS
	Back Next Cancel

Figure 22. Setup Wizard

- 7 Click **Next** to display *Custom Setup* (Figure 23).
- 8 By default the **PCS Axis** application is selected for installation as shown in the next figure (Figure 23). No changes are required to the default setting.



Figure 23. Custom Setup



- 9 Click the down arrow in **X PCS Axis Job Service** and select the option **Entire feature will be installed on local hard drive** to upgrade the job service.
- **10** Click **Next** and then click **Install** to begin the installation.
- **11** When the installation completes and after a short delay, *PCS Axis Connection Manager* opens. Click **Close** to exit *PCS Axis Connection Manager*.
- **12** Complete the following steps to verify database/server connections and then upgrade the PCS Axis database to v1.9.
 - a Start PCS Axis Connection Manager. Click the Windows 🚱 Start button, then click All Programs > PCS Axis 1.9 > In CS Axis Connection Manager 1.9 (Figure 24).

Note: *Server* and *Database* connection settings automatically carry forward when upgrading PCS Axis from a previous version of the software.

b Click ② **Test** to verify a connection to the PCS Axis database. When the message *Connection successful* displays, click **V OK** to close the message. Then click **Save**.

🚹 Pcs Axis Connection Manager		
Pcs Axis Connection Manager	🖶 Save and Close 📔 Sa	ve 🛛 🔀 Close
Connections 💿 Default	🏫 Make Default	X Delete
습 Default (Primary)		
✓ Primary	🖌 Activate 🔕 Test 🙆 Crea	ate / Upgrade
Server	MyServerName\sqlexpress	Sele Create Or Upgrade Database
Database	MyDatabaseName	🗱 Select
Connection Strin	g Data Source=MyServerName\sqlexpress;Initial Catalog=MyDatabaseName;Integrated Security=True	
		torrect
✓ Subscription	n 🛷 Activate 💿 Te	st 🖉 Ø Clear
Server		🗱 Select
Database		Select
Connection Strin	3	R Correct
		Contect
•		

Figure 24. PCS Axis Connection Manager

c Click 💮 Create / Upgrade to begin the database upgrade.

The *Create Or Update Database* window opens when the upgrade process begins (Figure 25, page 25). This window provides status information throughout the process. When the message *Update completed* displays in the window, the database upgrade is complete.

- d Click 🔀 Close to close the Create Or Update Database window.
- e Click Close to exit PCS Axis Connection Manager. Then click Finish in Setup Wizard to close the PCS Axis installation file.





Figure 25. Create Or Update Database

- **13** To verify the upgrade installation completed successfully, use the following steps to verify the PCS Axis application and database version is **1.9**:
 - a Start PCS Axis on the client computer. Click the Windows 🚱 Start button, then click All Programs > 🏰 PCS Axis 1.9.
 - b Click Help > About PCS Axis to open the *About* window. Verify Version 1.9 displays as shown in the following figure (Figure 26). If the version number is different, contact PCS Technical Services for assistance using the contact information on page 28.

Note: Clicking *Copy To Clipboard* in the *About* window copies the following information to the Windows clipboard: database connection; application version; and build information (date and time). After copying information to the clipboard, you can then paste it in an email or other type of document, such as Microsoft[®] Word. Use this feature when contacting PCS Technical Services for support with PCS Axis.



Figure 26. About PCS Axis



- **14** Complete the following steps to start *PCS Axis Job Service*:
 - a Click the Windows 🕙 **Start** button and navigate to *Computer*. Right-click **Computer** and select **Manage** in the shortcut menu to open the *Computer Management* console (Figure 27).
 - **b** Double-click **Services and Applications** in the left pane of the console. Then click **Services** to display a list of services in the middle pane.

🔠 Computer Management							×
File Action View Help							
🗢 🄿 🖄 📰 🖾 😖	🛛 🗊 🕨 🗉 🖬						
😓 Computer Management (Local	Services					Actions	
System Tools Task Scheduler	PCS Axis Job Service 1.9	Name	Description	Status	Startu ^	Services	•
Event Viewer	Share the same line	Parental Controls	This service		Manu	More Actions	•
Big Shared Folders	Restart the service	CS Axis Job Service 1.9	Monitors th	Started	Autor	PCS Axis Job Service 1.9	
Local Users and Groups		Peer Name Resolution Prot	Enables serv		Manu	Mare Actions	
Performance	Description	Peer Networking Grouping	Enables mul		Manu	More Actions	· 1
Device Manager	Monitors the PCS Axis job queue,	Peer Networking Identity M	Provides ide		Manu		
Storage Dick Management	initiating jobs as they become	Performance Counter DLL	Enables rem		Manu		
Services and Applications	available.	Performance Logs & Alerts	Ferformanc	Started	Autor		
Q. Services		© DoD-Y ID Bus Fourmerator	The DoD-Y	Starteu	Manu		
📸 WMI Control		PNRP Machine Name Public.	This service		Manu		
Big SQL Server Configuratic		Portable Device Enumerator	Enforces gr		Manu		
		Q Power	Manages p	Started	Autor		
		🔍 Print Spooler	Loads files t	Started	Autor		
		Reports and Soluti	This service		Manu		
		🔍 Program Compatibility Assi	This service	Started	Autor		
		🔍 Protected Storage	Provides pr	Started	Manu		
		🔍 Quality Windows Audio Vid	Quality Win		Manu		
		🔍 Realtek Audio Service	For coopera	Started	Autor		
		Remote Access Auto Conne	Creates a co		Manu		
		Pomoto Accors Connection III	Managar di		h Annu b		
4 III +	Extended Standard						

Figure 27. Computer Management Console

- c Right-click **PCS Axis Job Service 1.9** (Figure 27) and select **Properties** in the shortcut menu to open the *Properties* dialog box (Figure 28, page 27).
- d Click the Log On tab and select the option Local System account. Then click the check box Allow service to interact with desktop.
- e Click **Apply** and then **OK** to close the *Properties* dialog box and return to the *Computer Management* console.



PCS Axis Job Service 1.9 P	roperties (Local Computer)	—
General Log On Recov	very Dependencies	
Log on as:		
Local System account Allow service to intervice to int	t teract with desktop	
This account:		Browse
Password:		
Confirm password:		
Help me configure user a	ccount log on options.	
	OK Cancel	Apply

Figure 28. PCS Axis Job Service 1.9 Properties

- f Select PCS Axis Job Service 1.9 and then click Start (Figure 29).
- **g** Click **File** > **Exit** to close the *Computer Management* console.
- **h** In PCS Axis, click **Tools** > **Job Service Viewer**. Verify the message *Running* displays in the *Status* field.

The PCS Axis v1.9 upgrade is now complete.

Computer Management							
File Action View Help							
⊨ 🔿 📶 🖾 🔍 🕞 🚺 🕨	■ 11 1>						
Computer Management (Local)	O Services						Actions
System Tools	PCS Axis Job Service 1.8	Name	Status	Description	Startup Type	*	Services
Services and Applications		A Network Store Interface Service	Started	This service delivers network notif	Automatic		More Actions
Internet Information Services (IIS) Mi	Start the service	🔍 Office Source Engine		Saves installation files used for up N	Manual		DCS Avis Job Service 1.9
Services	45	🌼 Office Software Protection Platform		Enables the download, installatio	Manual		PC3 AXIS JOD SERVICE 1.0
i WMI Control	Description:	🍓 Offline Files		The Offline Files service performs	Disabled		More Actions
By SQL Server Configuration Manager	Monitors the PCS Axis job queue,	🧠 Parental Controls		This service is a stub for Windows	Manual		
	available.	🐝 PCS Axis Job Service 1.8		Monitors the PCS Axis job queue,	Automatic		
		🍓 Peer Name Resolution Protocol		Enables serverless peer name reso	Manual		
		🌼 Peer Networking Grouping		Enables multi-party communicati	Manual		
		🧠 Peer Networking Identity Manager		Provides identity services for the	Manual		
		🌼 Performance Logs & Alerts		Performance Logs and Alerts Coll	Manual		
		🔍 Plug and Play	Started	Enables a computer to recognize	Automatic		
		🔍 PnP-X IP Bus Enumerator		The PnP-X bus enumerator servic	Manual	_	
		🔍 PNRP Machine Name Publication S		This service publishes a machine	Manual		
		🍓 Portable Device Enumerator Service		Enforces group policy for remova	Manual	=	
		🔍 Power	Started	Manages power policy and power	Automatic		
		🔍 Print Spooler	Started	Loads files to memory for later pri	Automatic		
		🌼 Problem Reports and Solutions Con		This service provides support for	Manual		
		Program Compatibility Assistant Ser	Started	This service provides support for t	Manual		
		🌼 Protected Storage		Provides protected storage for se	Manual		
		🧠 Quality Windows Audio Video Exper		Quality Windows Audio Video Exp	Manual		
		🌼 Remote Access Auto Connection M		Creates a connection to a remote	Manual		
		Remote Access Connection Manager		Manages dial-up and virtual priva	Manual		
		鵒 Remote Desktop Configuration		Remote Desktop Configuration se	Manual		
		🔍 Remote Desktop Services		Allows users to connect interactiv	Manual		
		🌼 Remote Desktop Services UserMode		Allows the redirection of Printers/	Manual		
		🔍 Remote Procedure Call (RPC)	Started	The RPCSS service is the Service C	Automatic		
		🍓 Remote Procedure Call (RPC) Locator		In Windows 2003 and earlier versi	Manual		
		🔍 Remote Registry		Enables remote users to modify re	Manual		
		Routing and Remote Access		Offers routing services to busines	Disabled		
		A DDC F 1 1 114		B 1 BBC11 (11 (C	A. 1	Ŧ	
	/ /						1

Figure 29. Computer Management Console



Product Support and Training

If you have a suggestion, question, feature request, or a bug to report-your feedback would be appreciated. Also if you have a training need for your organization or would like to know more about upcoming PCS Axis training classes, use any of the following contact information to reach PCS Technical Services:

Support E-mail:	pcstechservices@aiworldwide.com
Support Telephone:	1-800-229-3404 (select 1, then press 2)
American Innovations:	http://www.aiworldwide.com