

PaperVision® Enterprise

Installation and Getting Started Guide

PaperVision Enterprise Release 71

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Intended Audience

This installation and getting started guide is intended to be used by experienced IT professionals who are familiar with software installations and configurations. Additionally, users of this installation guide should be familiar with the Microsoft® Windows operating system and basic database administration.

Product Support

Digitech Systems, Inc. takes great pride in providing software that is extremely simple to use, feature-rich, and flexible both in architecture and in integration capabilities. If, for some reason, you experience any difficulty, please do not hesitate to contact us to experience our legendary customer service toll free at (877)374-3569 or direct at (402)484-7777. Additionally, you may contact us at support@digitechsystems.com. Our technical support staff is available to serve you between the hours of 8:00 AM and 6:00 PM Central Time.

Digitech Systems' product features and enhancements are driven by you, our customer. If you have an idea for a future product feature or enhancement, please send an e-mail to dev@digitechsystems.com.

Additional Help Resources

In addition to our legendary technical support staff, we also offer web-based resources to help answer your questions and resolve your issues.

Help on the Web

MyDSI is an interactive tool for all Digitech Systems customers. Log in to MyDSI at http://mydsi.digitechsystems.com to download product updates, license purchased software, view support contract renewals, and check the status of your software support cases and requests.

User Forums

Log in to the User Forums at http://forums.digitechsystems.com to exchange answers and ideas with other users in our moderated community.

Knowledge Base

Log in to search our extensive Knowledge Base at http://kb.digitechsystems.com for articles on all Digitech Systems products.

Documentation

For documentation on the features and functions of the PaperVision Enterprise application, refer to the Online Help file, found by opening the application's **Help menu > Help Topics.**

System Requirements

The following table outlines the minimum software requirements for PaperVision Enterprise and its optional components.

Minimum System Requirements		
Operating Systems	Windows XP SP2 or later (both 32- and 64-bit operating systems supported) required for the following components:	
	PaperVision Administration Console	
	PaperVision Enterprise	
	PaperVision Automation Service (not required)	
	 PaperVision.net Enterprise Browser Plug-Ins (not required)* 	
	 PaperVision Web/Application or Authentication Gateway Server (not required)* 	
	* Both components require Internet Information Server (IIS) 5.0 or later	
.NET Framework	Version 3.5 SP1 or later	
Microsoft® SQL Server®	SQL Server 2000 or later	
	Note : Optionally, you can install Microsoft SQL Server 2005 Express Edition during the PaperVision Enterprise installation.	
Internet Browser	Internet Explorer® 6 SP2 or later	
	Mozilla Firefox [®] 3.5 or later	
	IMPORTANT: The Mozilla Firefox browser is not compatible with the Document Viewer plug-in.	
Screen Resolution	SVGA Monitor (1024 x 768 or higher recommended)	

PaperVision Enterprise Terminology

To fully understand PaperVision Enterprise, the following key terms are used throughout the installation and application.

Administrators

PaperVision Enterprise supports the following types of administrators:

- Global administrators can control every aspect of configuration for the PaperVision Enterprise system, including configurations for all entities. However, they cannot access the documents in a project, as a system (entity) administrator can.
- System administrators are entity administrators. They can administrate a single entity and have access to all functionality in all projects for that entity. However, system administrators cannot assign the entity's data group, full-text, migration and batch paths, for example, that a global administrator can assign.
- Workflow administrators are able to design and configure workflows within an entity. They can configure workflow definitions for any project and view workflow history and workflow status reports, but they have no access to documents or functions in any projects unless a system administrator explicitly grants them access. If they do have access to view documents within a project, workflow administrators can create workflow instances for a particular document and view its workflow status.
- Capture administrators can define Capture Jobs for use with the PaperVision Capture product. Capture administrators have no administrative capabilities in PaperVision Enterprise.

Data Group

A data group is a set of documents and their index values. A data group can contain one or more documents, and those documents can be grouped into one or many projects. A data group holds information for only a single client, but it can contain an unlimited number of projects. Typically, a data group only contains documents for one project, as this makes organization easier.

Documents

Documents contain the individual pages or images for a given set of index values. When document grouping is enabled in **System Settings** > **User Options**, documents are grouped per page results. By default, 100 documents appear per page of search results in PaperVision Enterprise.

Entity

An entity is a body such as a corporation or organization. Each entity is autonomous and administers its own projects, users, groups, workflows, security policies, etc. An entity never shares elements with other entities, and you cannot switch between entity IDs after you log in. You or your administrator can limit access to specific projects, functionality, and documents within your entity.

In general, most users (including users at large enterprise installations) use only a single entity. Only a few special circumstances require more than one entity:

For example, you might see more than one entity in a hosting environment where an ondemand provider is hosting data for multiple companies and each company wants to be able to administrate itself and its users. You might also see more than one entity in a large enterprise consisting of different departments that want the ability to administrate themselves separately from other departments without involving a central IT organization.

Entity ID

An entity ID is a unique number that identifies each entity. Each entity is autonomous; you cannot change your entity ID after you log in and cannot work across entities.

Index Values

Document index fields contain values that enable you to identify key elements of documents within a project during the capture process. You then use these index field values to search for and retrieve documents in PaperVision Enterprise. When you enter an index value to perform a search for a document, the application compares the value you entered against your database tables and retrieves documents that meet your specific criteria.

PaperVision Administration Console

The PaperVision Administration Console provides administration and configuration capabilities.

PaperVision Authentication Gateway

The PaperVision Authentication Gateway includes the web interface for integrated Windows-based authentication to the PaperVision Enterprise Server (single sign-on).

PaperVision Automation Server

The PaperVision Automation Server runs as a Microsoft Windows service that performs automated operations at specified time intervals. Examples of work performed by the PaperVision Automation Server include importing data, workflow management, records retention and destruction, and report processing.

PaperVision Distribution Assistant

The PaperVision Distribution Assistant embeds a simple viewer in distribution media with migrated documents.

PaperVision Enterprise Local Client

The PaperVision Enterprise Local Client application provides the same client features and functionality provided by the PaperVision Enterprise Server without requiring a web server. Users can perform operations such as document viewing, searching, indexing, and other document manipulation operations.

PaperVision Enterprise Server

The PaperVision Enterprise Server provides the web interface for user access.

Project

A project is a logical grouping of documents based on a common indexing schema. For example, ABC Company has three projects: Human Resources, Accounts Receivable, and Sales.

- The Accounts Receivable project contains billing, purchase order, and invoice information.
- The Human Resources project contains Human Resources records, such as employee records and health insurance information.
- The Sales project contains prospect and client information.

Each of these projects is a separate logical grouping within the ABC Company entity. Projects support up to 200 named index fields. Project names must be unique within an entity, but you can create an unlimited number of projects.

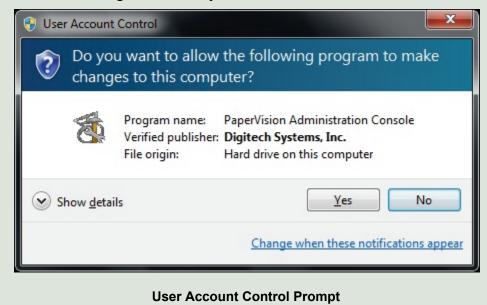
This chapter describes the steps involved during the installation of PaperVision

Enterprise Server on your computer. You must be designated as an administrator in order to install any of the PaperVision Enterprise setup types. Before you begin the installation, you may want to look at **Appendix C – System Architecture** in the **PaperVision Enterprise Administration and System Architecture Reference Guide** to help you assess what configuration options are available with PaperVision Enterprise.

Note:

PaperVision Enterprise is intended to be installed using administrative privileges. If UAC is enabled during the installation of PaperVision Enterprise, some operations may not function properly.

If UAC is enabled and you are not logged into Microsoft Windows as the machine's administrator, a UAC prompt will appear each time you launch the PaperVision Administration Console and ask you to allow the PaperVision Administration Console to make changes to the computer.



PaperVision Enterprise Installation and Configuration Wizard

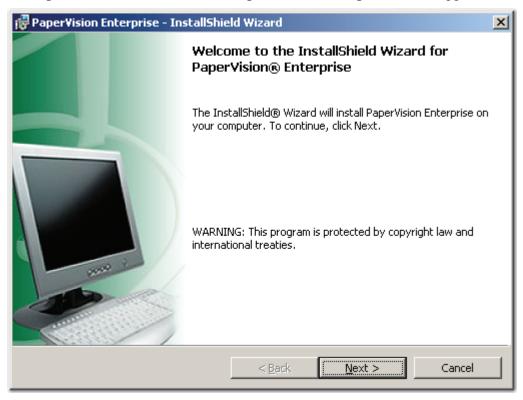
The installation and setup of PaperVision Enterprise requires that you follow the instructions on every screen. You can click the **Back** or **Next** buttons to move backward and forward through the screens. You can click the **Cancel** button to exit and close the Installation or Setup Wizard. Additionally, the **Skip** button is available on certain screens if specific components have already been configured in previous versions of PaperVision Enterprise.

Installing PaperVision Enterprise Server

The following instructions describe the default PaperVision Enterprise Server installation type that installs all Server, Administrative, and Automation features. If you have not already established a database connection, you can optionally install Microsoft SQL Server 2005 Express Edition. Instructions describing the installation of PaperVision Enterprise Stand-Alone that provides all Administrative, Automation, and Local Client features (document viewing, searching, and manipulation operations; workflow tasks, etc.) begin in **Chapter 3.**

To install PaperVision Enterprise Server:

1. From the PaperVision Enterprise installation DVD, launch the **PaperVision Enterprise.msi**. The **Welcome to PaperVision Enterprise** screen appears.



Welcome to PaperVision Enterprise

2. Click **Next**, and the **License Agreement** screen appears.



License Agreement

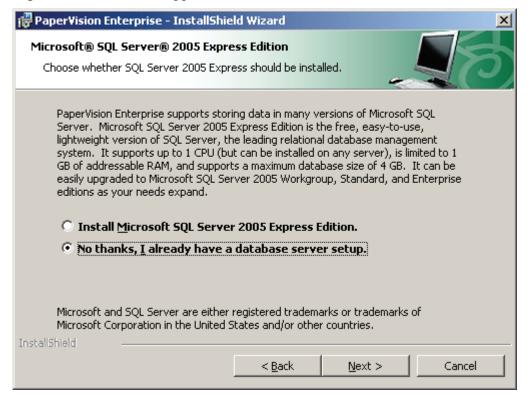
3. If you accept the terms of the License Agreement, click **Next**, and the **Setup Type** screen appears. If you decline the terms, the installation will terminate.



Setup Type

4. In the **Setup Type** screen, select the **PaperVision Enterprise Server** setup type. This setup type installs all Server, Administration, and Automation features.

5. After selecting the setup type, click **Next**, and the **Microsoft**® **SQL Server**® **2005 Express Edition** screen appears.



Microsoft® SQL Server® 2005 Express Edition

- 6. If you have already established a database connection, select **No**, and then proceed to **step 8 on page 14**.
- 7. If you would like to install Microsoft SQL Server, select **Install Microsoft SQL Server 2005 Express Edition**, and then click **Next** to proceed to the next step.

8. Click **Next** and the **Ready to Install the Program** screen appears.



Ready to Install the Program

9. To proceed with the installation, click **Install.** A progress message will appear for a few minutes.



Installing PaperVision Enterprise

10. Once PaperVision Enterprise has been successfully installed, the **InstallShield Wizard Completed** screen appears. Click **Finish** to launch the PaperVision Enterprise Configuration Wizard.



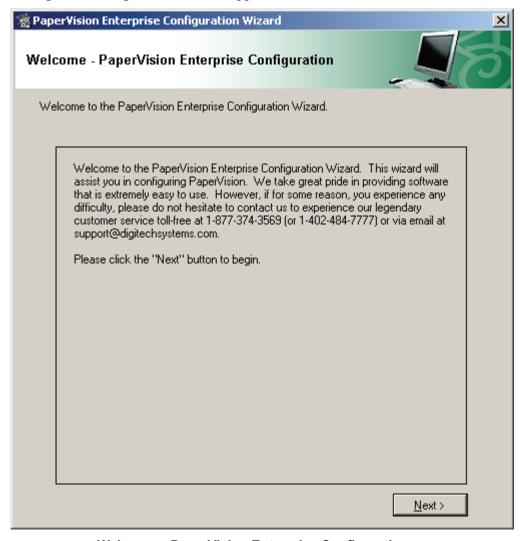
InstallShield Wizard Completed

Configuring PaperVision Enterprise Server

Once you have successfully installed PaperVision Enterprise Server, you are presented with a configuration wizard that is designed to simplify the setup process.

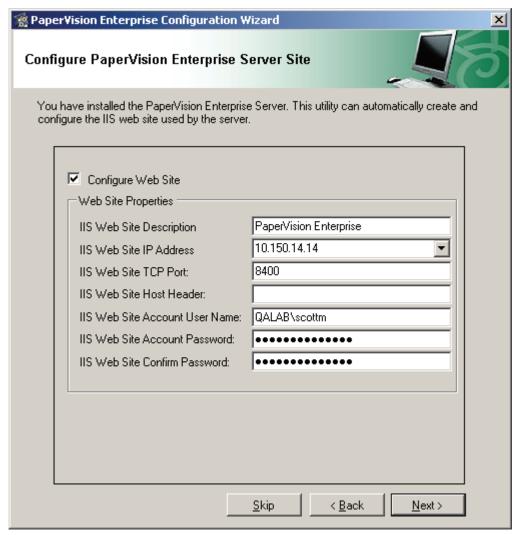
To configure PaperVision Enterprise Server:

1. To begin the configuration process, click **Next**, and the **Welcome – PaperVision Enterprise Configuration** screen appears.



Welcome – PaperVision Enterprise Configuration

2. Click Next. The Configure PaperVision Enterprise Server Site screen appears.



Configure PaperVision Enterprise Server Site

Note:

Depending on your operating system, some web site properties may not be available for configuration in this screen.

3. To automatically configure and create the IIS web site used by the PaperVision Enterprise Server, select **Configure Web Site**.

Note:

If a PaperVision Enterprise web site already exists, you can press **Skip** and proceed to **step 11 on page 20.**

- 4. Enter the **IIS Web Site Description**, which reflects how the name will appear in the list of IIS web sites.
- 5. Enter the **IIS Web Site IP Address**. You can either select **All Unassigned IP** addresses or select a specific IP address from the drop-down list.

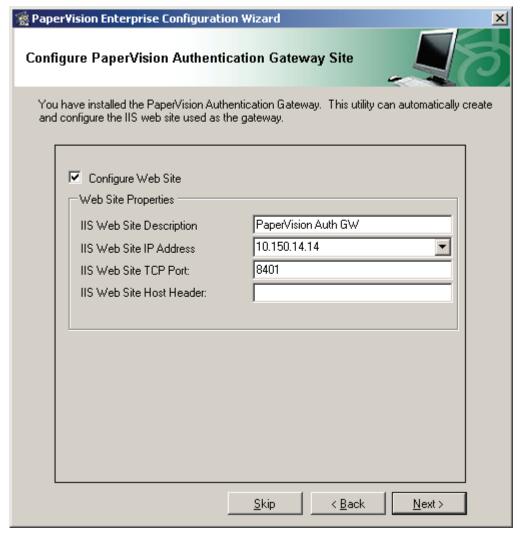
- If you select **All Unassigned IP Addresses**, you can either type in the machine name (e.g., http://<MachineName>/Default.aspx) or IP address to browse to the site.
- If you select a specific IP Address from the drop-down list, then you must type in the specific IP address (e.g., http://10.150.10.10/Default.aspx).
- 6. Enter the **Web Site TCP Port** that will be used to communicate with IIS. If the Default Web Site in IIS already uses the specified port, you must complete one of the following options:
 - a. Specify another port number (e.g., 8086).
 - b. Delete the Default Web Site if it has not already been configured.
 - c. In IIS, stop the Default Web Site by right-clicking it, and selecting **Stop** from the context menu. However, if you want to start the Default Web Site at a later time, you will need to change its TCP Port.
 - d. Use the server name and a different IP address.
- 7. Enter the **IIS Web Site Host Header**, which allows multiple URL addresses to connect to the same site or to segregate web sites. Host headers may also be used when two web sites share the same port.
- 8. Enter the **IIS Account User Name** used for anonymous access. You must enter the name using one of the following formats:
 - a. <DomainName>\<UserName>
 - b. <MachineName>\<Username>

Note:

The specified account must have the Windows Log On as a Service user right enabled.

9. Enter the **IIS Web Site Account Password**, and then confirm the password.

10. Click **Next**, and the **Configure PaperVision Authentication Gateway Site** screen appears.



Configure PaperVision Authentication Gateway Site

11. To automatically create and configure the authentication gateway in IIS, select **Configure Web Site.**

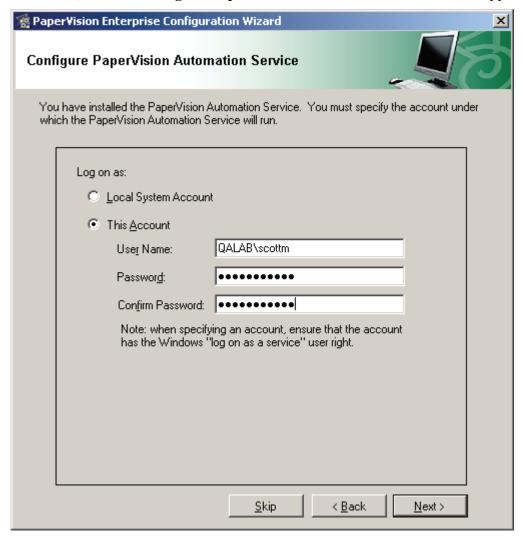
Note:

If the PaperVision Authentication Gateway Site already exists, you can press **Skip** and proceed to **step 17 on page 22.**

12. Enter the **Web Site Description**, which reflects how the name will appear in the list of IIS web sites.

- 13. Enter the **Web Site IP Address**. You can either select **All Unassigned IP Addresses** or select a specific IP address from the drop-down list.
 - If you select **All Unassigned IP Addresses**, you can either type in the web site domain name or IP address to browse to the site (e.g., http://PaperVisionDomainName/Default.aspx).
 - If you select a specific IP Address from the drop-down list, then you must type in the specific IP address (e.g., http://10.150.10/Default.aspx).
- 14. Enter the **Web Site TCP Port** that will be used to communicate with IIS. If the Default Web Site in IIS already uses your specified port, you must complete one of the following options:
 - a. Specify another port number (e.g., 8086).
 - b. Delete the Default Web Site if it has not already been configured.
 - c. In IIS, stop the Default Web Site by right-clicking it, and selecting **Stop** from the context menu. However, if you want to start the Default Web Site at a later time, you will need to change its TCP Port.
 - d. Use the server name and a different IP address.
- 15. Enter the **Web Site Host Header**, which allows multiple URL addresses to connect to the same site or to segregate web sites. Host headers are also used when two web sites share the same port.

16. Click Next, and the Configure PaperVision Automation Service screen appears.



Configure PaperVision Automation Service

- 17. The PaperVision Automation Service is a Microsoft Windows service that performs automated tasks and operations at a specified time interval. Select the user account under which the PaperVision Automation Service will execute.
 - The **Local System Account** requires no additional user name or password information. However, the Local System Account generally does not have access to network shared drives and other directories on the computer. As such, it may be necessary to change the account the service is using. A confirmation message will prompt you whether to save your changes (if you changed the account settings) and continue with the installation.

Note:

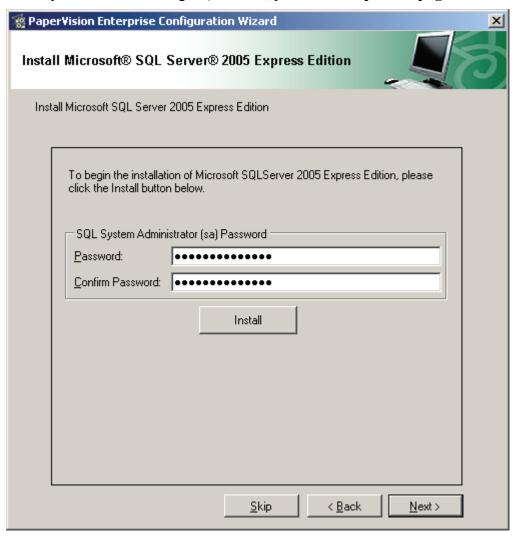
If you select **No**, the installation will not proceed. See **Appendix C** for information on changing the Windows service account.

• **This Account** enables you to select the Windows user account that will have security rights to perform all PaperVision Automation Service functions such as reading, writing, and deleting files. Enter a user name and password.

Note:

The specified account must have the Windows Log On as a Service user right enabled.

- 18. Verify that the account settings are correct, and then click **Next**.
 - If you are installing Microsoft SQL Server 2005 Express Edition, the Install Microsoft[®] SQL Server[®] 2005 Express Edition screen appears. Proceed to the next step.
 - If you are not installing SQL Server, proceed to step 22 on page 25.



Install Microsoft® SQL Server® 2005 Express Edition

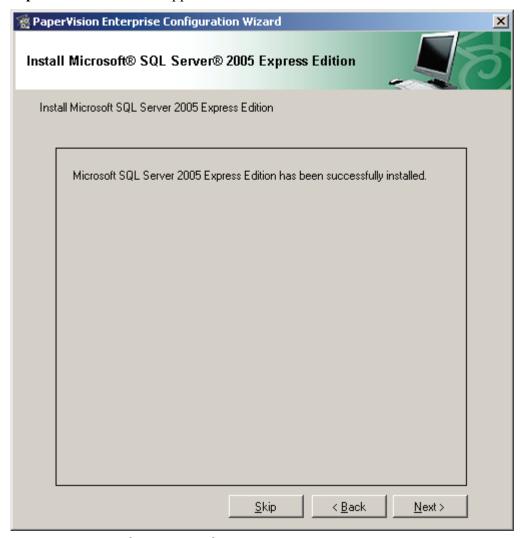
19. Enter a password for the SQL Server System Administrator.

Note:

The SQL Server System Administrator's password must meet strong password policy requirements. For more information, see the Microsoft Developer's Network web site:

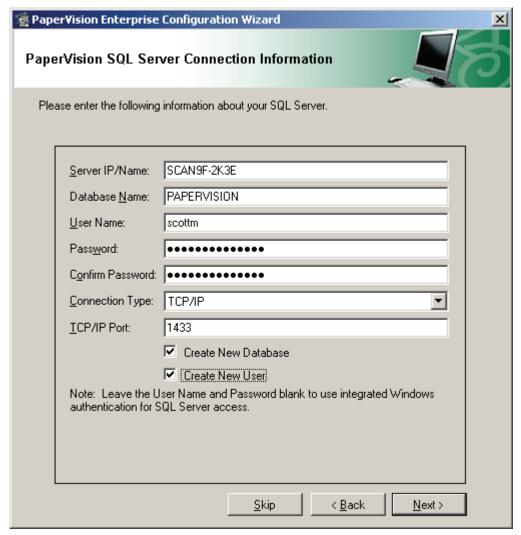
http://msdn.microsoft.com/en-us/library/ms143705(SQL.90).aspx

20. Click the **Install** button to begin the SQL Server 2005 Express Edition installation, which will take several minutes to complete. The **Install Microsoft SQL Server 2005 Express Edition** screen appears after installation.



Install Microsoft® SQL Server® 2005 Express Edition (successfully installed)

21. After you have been notified that the SQL Server was successfully installed, click **Next**, and the **PaperVision SQL Server Connection Information** screen appears.



PaperVision SQL Server Connection Information

- 22. Enter the **Server IP Address/Name** where the database resides, which can be an IP address or machine name
- 23. Enter the **Database Name** that will be used to share data with PaperVision Enterprise.
- 24. Enter the **User Name** that has permissions to create new users and add new data. The default user name is derived from the System Administrator account specified in step 21. If you do not want to use the System Administrator account, enter the name of a user that can be created automatically and granted the appropriate permissions in SQL Server.

25. Enter the **Password** that is linked to the user created in the previous step. By default, the System Administrator's password is used. If you created a new user (instead of using the System Administrator) enter a password for the new user.

Note:

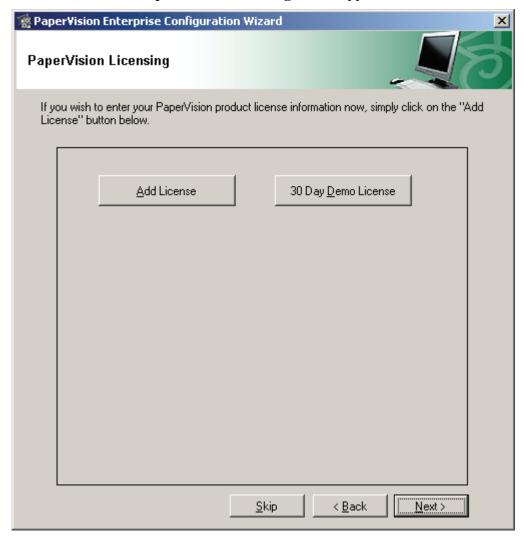
If you leave the **User Name** and **Password** fields blank, the database connection will use Windows Authentication credentials. Entering a user name and password for the database will supercede the Windows Authentication credentials.

- 26. Confirm the password specified in the previous step.
- 27. Select the **Connection Type**, which defaults to **TCP/IP**. Available connection types include Named Pipes, IPX/SPX, Multiprotocol, and Banyan Vines.
- 28. If you chose the TCP/IP connection, enter the port number.
- 29. Select the **Create New Database** option if the specified database name does not already exist. The new database will be automatically created in SQL Server.
- 30. Select the **Create New User** option if the specified user does not already exist. The new user will be automatically created in SQL Server and granted access to the database.

Note:

If you select this option, a SQL Login prompt will appear. Enter the user name and password for the account that has permission to create new users.

31. Click Next, and the PaperVision Licensing screen appears.



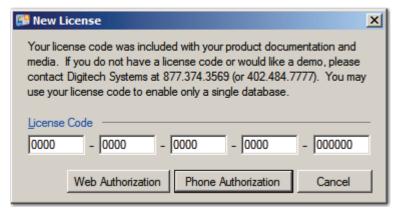
PaperVision Licensing

- 32. To add your purchased license, click the **Add License** button, and proceed to **step 34 on page 28.**
- 33. If you want to run PaperVision Enterprise in demonstration mode, click the **30 Day Demo License** button and proceed to **step 39 on page 29.**

Note:

If you have already added a purchased license of PaperVision Enterprise, you cannot add a subsequent demo license. If you want to add a demo license, you must add it before any purchased license. The demo license includes one license each of the Advanced Admin Pack and Enterprise Workflow and fifty Enterprise User licenses.

34. In the **New License** dialog box, enter the license code that was included with your product documentation and media.



New License

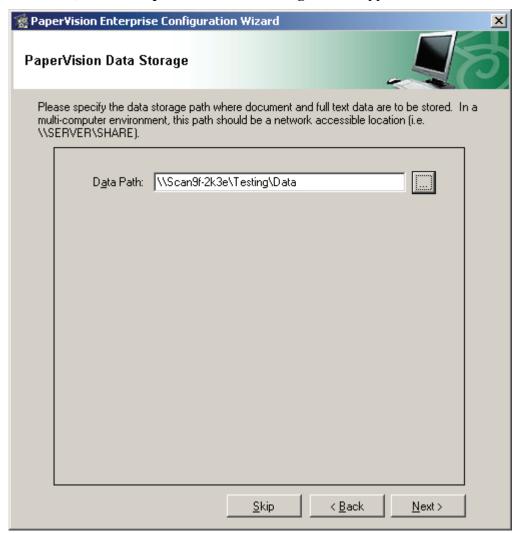
- 35. If the computer has access to the Internet, click the **Web Authorization** button to obtain the license key online.
- 36. Or, click the **Phone Authorization** button and contact Digitech Systems' Technical Support toll-free at (877)374-3569 or direct at (402)484-7777 to obtain your license key.

Note:

You must provide the serial number and identifier before the license key will be provided to you.

37. In the **Obtain Authorization Code** dialog box, enter the code, and then click **OK**.

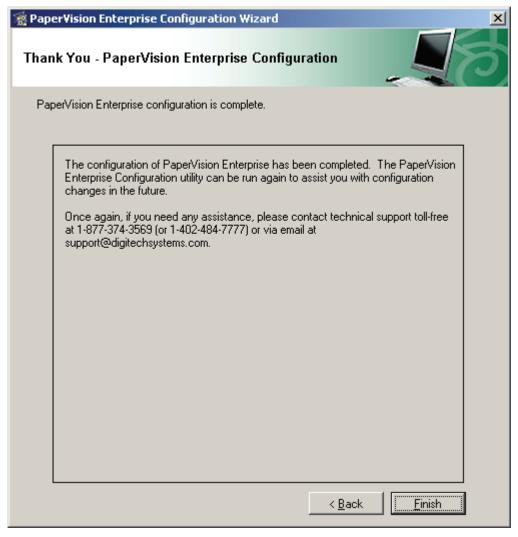
38. Click Next, and the PaperVision Data Storage screen appears.



PaperVision Data Storage

39. In the **PaperVision Data Storage** screen, enter the location of the data storage path where document and full-text data will be stored, or click the ellipsis button to browse to the location. If multiple computers will be accessing this location, it is recommended to enter a network-accessible path such as \\SERVER\SHARE.

40. Click **Next**, and the **Thank You – PaperVision Enterprise Configuration** screen appears.



Thank You - PaperVision Enterprise Configuration

41. Click **Finish** to close the configuration wizard. You are ready to log into the PaperVision Enterprise application.

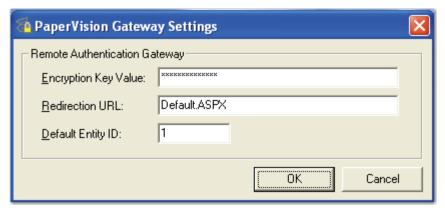
Configuring PaperVision Gateway Settings

After PaperVision Enterprise Server has been successfully installed and configured, you must configure the PaperVision Authentication Gateway using the PaperVision Gateway Settings utility. The PaperVision Gateway Settings application can be accessed by simply selecting the icon in Start > Programs > Digitech Systems > PaperVision Gateway Settings.

Note:

Refer to **Appendix G** for further information regarding the remote authentication gateway capabilities in PaperVision Enterprise.

The PaperVision Gateway Settings application allows administrators to enter the encryption key and other settings that will be used by the authentication gateway. This application saves the settings in an AES-256 bit encrypted file which is specific to the machine on which it was created. For security purposes, the created "PVRemoteAuth.XML" file cannot be copied from one machine to another – each machine must be used to create its own file.



PaperVision Gateway Settings

The following Remote Authentication Gateway settings are available for configuration:

- Encryption Key Value specifies the encryption key value (not the encryption key name) which is identical to that created and selected in the entity security policy as the Remote Authentication Gateway Encryption Key.
- **Redirection URL** specifies the URL or web page that the user will be redirected to for authentication to PaperVision (typically a Login page).

Some possible examples include:

Default.ASPX: This URL can be used when the gateway is in the same web site as the main PaperVision repository web site.

Tip:

To redirect PVESearchURL requests to the PaperVision Authentication Gateway, insert the query parameter "searchURL=true" into the Default.aspx URL.

To view a list of optional PVESearchURL query parameters, append "/PVESearchURL.aspx?" to the end of your PaperVision URL Address.

http://myserver/Default.ASPX: This URL can be used when the gateway is in a different web site as the main PaperVision repository web site.

https://login.imagesilo.com/Default.ASPX: This URL can be used to remotely authenticate to ImageSilo.

• **Default Entity ID** specifies the default entity ID to be used when accessing the authentication gateway.

Accessing the Authentication Gateway

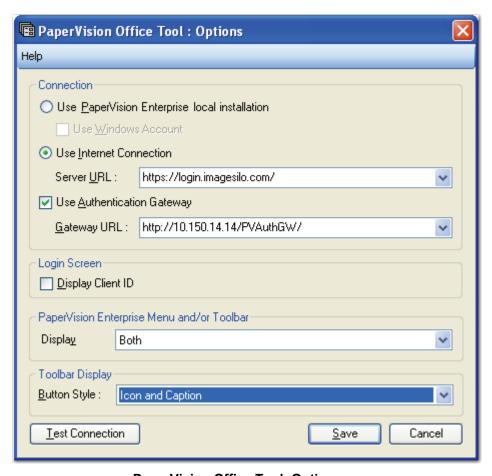
Accessing the authentication gateway is as easy as opening your web browser and pointing it to the URL of your authentication gateway web site. If you wish to use a non-default entity ID (as specified in the PaperVision Gateway Settings), you can specify the ENTID value as shown in the following example:

http://myservergw/AutoLogin.ASPX?ENTID=1234

The authentication gateway also includes a DebugUser.ASPX page which is designed to help administrators troubleshoot IIS authentication issues by displaying the authorized user credentials detected by IIS.

Note:

When configuring the Authentication Gateway in PaperVision Tools, do not specify the web page name for either the Server URL (e.g., Default.aspx) or Gateway URL (e.g., Autologin.aspx) as in the example below:



PaperVision Office Tool: Options

Chapter 3 - PaperVision Enterprise Stand-Alone Installation

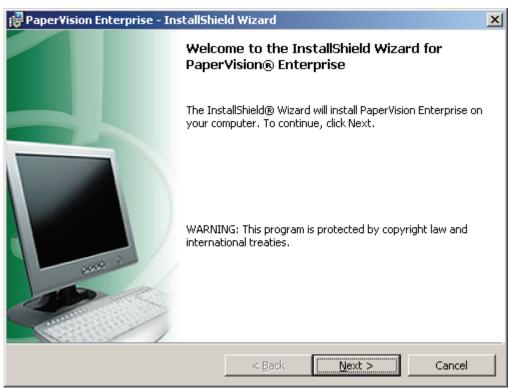
The following instructions describe a stand-alone installation of PaperVision
Enterprise that installs all Administrative, Automation, and Local Client features
(document viewing, searching, and manipulation operations; indexing, workflow tasks,
destruction lists, etc.). If you have not already established a database connection, you can
optionally install Microsoft SQL Server 2005 Express Edition that is included on your
installation media. Contrary to the PaperVision Enterprise Server, the PaperVision Enterprise
Local Client does not require the use of IIS. The installation and configuration of the
PaperVision Enterprise Stand-Alone System setup type follows the same general steps as
described in the previous chapter.

Note:

The PaperVision Enterprise Local Client and PaperVision Enterprise Server cannot be installed on the same machine.

To Install the PaperVision Enterprise Stand-Alone System:

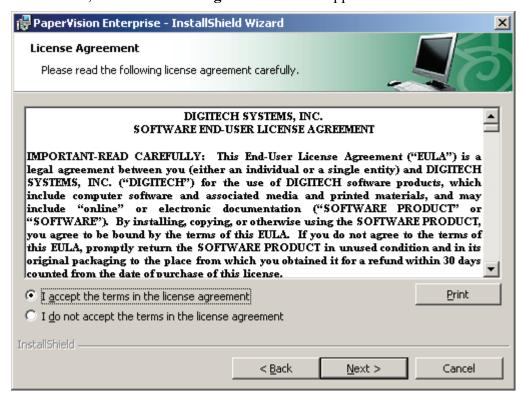
1. From the PaperVision Enterprise installation DVD, launch the **PaperVision Enterprise.msi**. The **Welcome to PaperVision Enterprise** screen appears.



Welcome to PaperVision Enterprise

Chapter 3 – PaperVision Enterprise Stand-Alone Installation

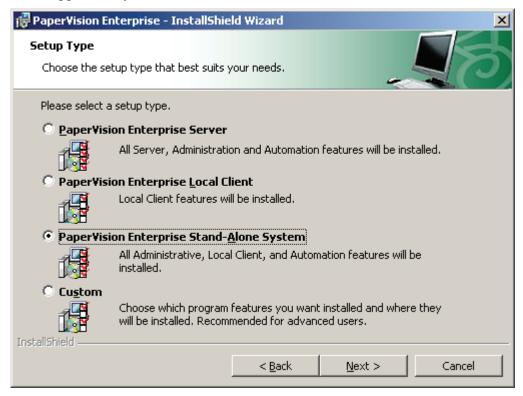
2. Click Next, and the License Agreement screen appears.



License Agreement

Chapter 3 - PaperVision Enterprise Stand-Alone Installation

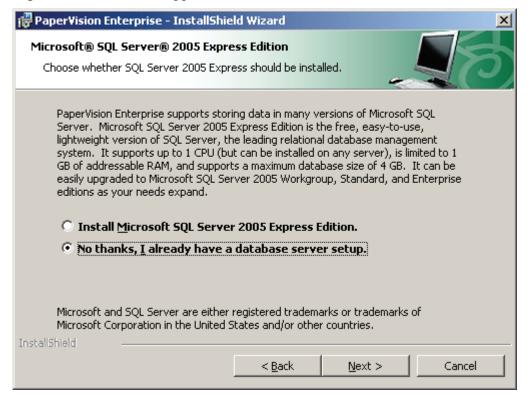
3. If you accept the terms of the License Agreement, click **Next**, and the **Setup Type** screen appears. If you decline the terms, the installation will terminate.



Setup Type

4. In the **Setup Type** screen, select the **PaperVision Enterprise Stand-Alone System** setup type.

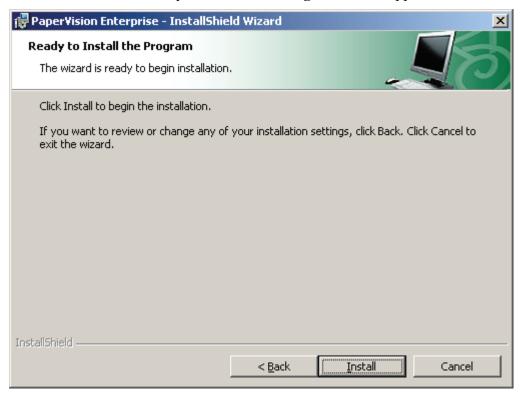
5. After selecting the setup type, click **Next**, and the **Microsoft**® **SQL Server**® **2005 Express Edition** screen appears.



Microsoft® SQL Server® 2005 Express Edition

- 6. If you have already established a database connection, select **No**, and then proceed to **step 8 on the next page**.
- 7. If you would like to install Microsoft SQL Server, select **Install Microsoft SQL Server 2005 Express Edition**, and then click **Next** to proceed to the next step.

8. Click **Next** and the **Ready to Install the Program** screen appears.



Ready to Install the Program

9. To proceed with the installation, click **Install.** A progress message will appear for a few minutes.



Installing PaperVision Enterprise

10. Once PaperVision Enterprise has been successfully installed, the **InstallShield Wizard Completed** screen appears. Click **Finish** to launch the PaperVision Enterprise Configuration Wizard.



InstallShield Wizard Completed

Configuring PaperVision Enterprise Stand-Alone

Once you have successfully installed PaperVision Enterprise Stand-Alone setup type, you are presented with a configuration wizard that is designed to simplify the setup process.

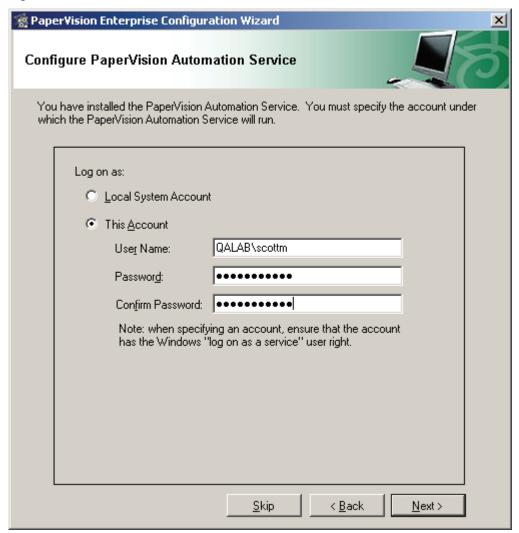
To configure PaperVision Enterprise Stand-Alone:

1. After you have launched the Configuration Wizard, click **Next** in the **Welcome – PaperVision Enterprise Configuration** screen.



Welcome - PaperVision Enterprise Configuration

2. The **Configure PaperVision Automation Service** screen appears. The PaperVision Automation Service is a Microsoft Windows service that performs automated tasks and operations at a specified time interval. Select the user account under which the PaperVision Automation Service will execute.



Configure PaperVision Automation Service

• The Local System Account requires no additional user name or password information. However, the Local System Account generally does not have access to network shared drives and other directories on the computer. As such, it may be necessary to change the account the service is using. A confirmation message will prompt you whether to save your changes (if you changed the account settings) and continue with the installation.

Note:

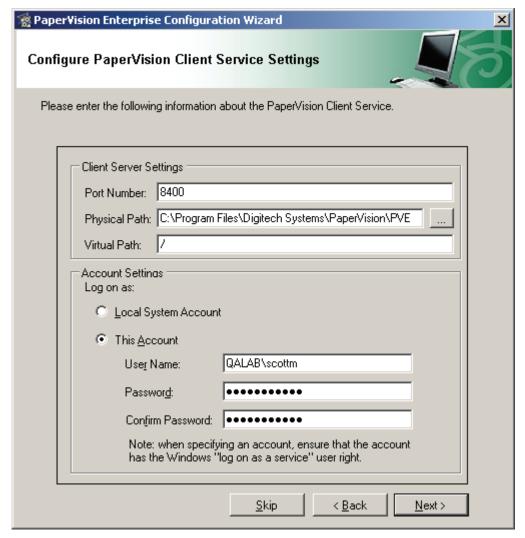
If you select **No**, the installation will not proceed. See **Appendix** C for information on changing the Windows service account.

• **This Account** enables you to select the Windows user account that will have security rights to perform all PaperVision Automation Service functions such as reading, writing, and deleting files. Enter a user name and password, and then confirm the password.

Note:

The specified account must have the Windows **Log On as a Service** user right enabled.

3. Verify that the PaperVision Automation Service account settings are correct, and then click **Next**. The **Configure PaperVision Client Service Settings** screen appears.



Configure PaperVision Client Service Settings

4. You must specify the account under which the PaperVision Enterprise Client Service will run. First, enter a **Port Number** that is currently not being used by this machine.

Note:

If the port you enter is already in use, an error will appear. For assistance, contact your administrator.

- 5. Enter the **Physical Path**, which specifies the directory where the PaperVision Enterprise Local Client application files reside. The default location appears in this field. If PaperVision Enterprise was installed to another location, click the ellipsis button to browse and select that directory.
- 6. Enter the **Virtual Path**, which follows the server or domain name in a web address. The default value is the backslash (/) character. For example, in the web address http://localhost/PaperVision.aspx, the virtual path, PaperVision.aspx, follows the localhost domain name.
- 7. If you select the **Local System Account**, you are not required to configure additional settings in this screen. However, the Local System Account generally does not have access to network shared drives and other directories on the computer. As such, it may be necessary to change the account the service is using. A confirmation message will prompt you whether to save your changes (if you changed the account settings) and continue with the installation.
 - If you select Yes, proceed to step 9.
 - If you select **No**, the installation will not proceed.

Note:

See **Appendix** C for information on changing the PaperVision Client Service account.

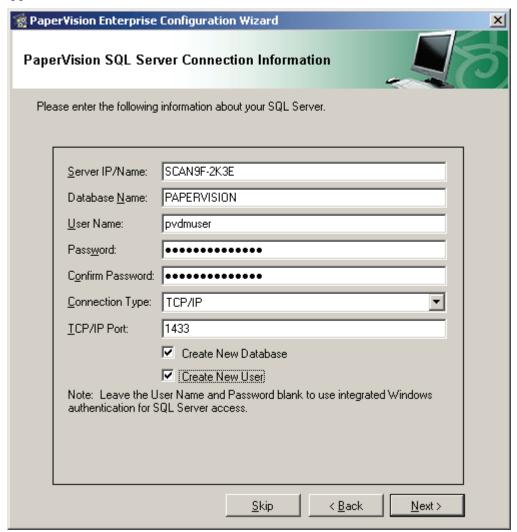
8. If you selected **This Account**, enter the user name and password under which the PaperVision Enterprise Client Service will execute.

Note:

The specified account must have the Windows Log On as a Service user right enabled.

9. If you are prompted to restart the Client Server Settings Windows service, select Yes.

10. Click **Next**, and the **PaperVision SQL Server Connection Information** screen appears.



PaperVision SQL Server Connection Information

- 11. Enter the **Server IP Address/Name** where the database resides.
- 12. Enter the **Database Name**.
- 13. Enter the User Name.
- 14. Enter the **Password**, and then confirm the password.

Note:

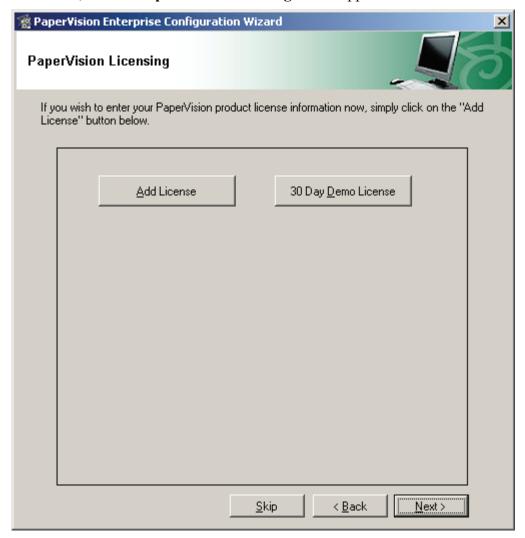
If you leave the **User Name** and **Password** fields blank, the database connection will use Windows Authentication credentials. Entering a user name and password for the database will supercede the Windows Authentication credentials.

- 15. Select the **Connection Type**, which defaults to **TCP/IP**. Available connection types include Named Pipes, IPX/SPX, Multiprotocol, and Banyan Vines.
- 16. If you chose the **TCP/IP** connection, enter the port number.
- 17. Select the **Create New Database** option if the specified database name does not already exist.
- 18. Select the **Create New User** option if the specified user name does not already exist. If you select this option, the specified user is automatically granted access to the database.

Note:

If you are creating a new user, you will be prompted to enter the user name and password of the account holding permission to create new users.

19. Click **Next**, and the **PaperVision Licensing** screen appears.



PaperVision Licensing

- 20. To add your purchased license, click the Add License button, and proceed to step 22.
- 21. If you want to run PaperVision Enterprise in demonstration mode, click the **30 Day Demo License** button and proceed to **step 26 on page 48.**

Note:

If you have already added a purchased license of PaperVision Enterprise, you cannot add a subsequent demo license. If you want to add a demo license, you must add it before any purchased license. The demo license includes one license each of the Advanced Admin Pack and Enterprise Workflow and fifty Enterprise User licenses.

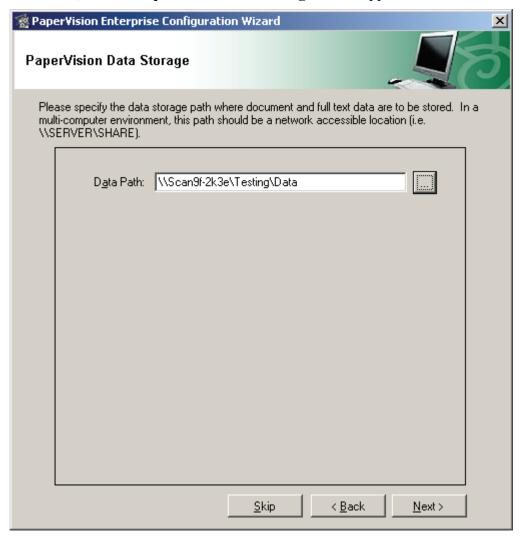
- 22. In the **New License** dialog box, enter the license code that was included with your product documentation and media.
- 23. If the computer has access to the Internet, click the **Web Authorization** button to obtain the license key online.
- 24. Or, click the **Phone Authorization** button and contact Digitech Systems' Technical Support toll-free at (877)374-3569 or direct at (402)484-7777 to obtain your license key.

Note:

You must provide the serial number and identifier before the license key will be provided to you.

25. In the **Obtain Authorization Code** dialog box, enter the code, and then click **OK**.

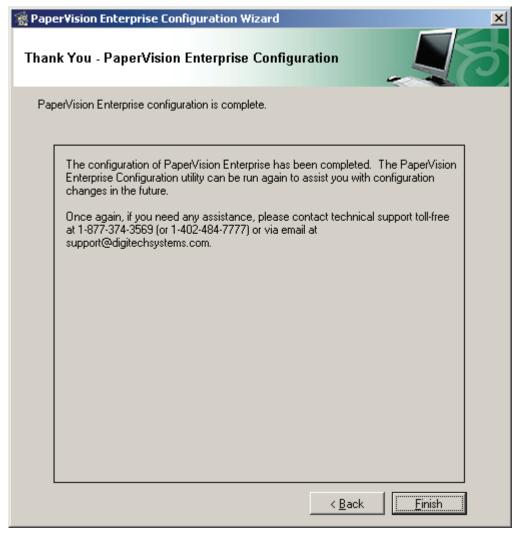
26. Click Next, and the PaperVision Data Storage screen appears.



PaperVision Data Storage

27. In the **PaperVision Data Storage** screen, enter the location of the data storage path where document and full-text data will be stored, or click the ellipsis button to browse to the location. If multiple computers will be accessing this location, it is recommended to enter a network-accessible path such as \\SERVER\SHARE.

28. Click **Next**, and the **Thank You – PaperVision Enterprise Configuration** screen appears.



Thank You - PaperVision Enterprise Configuration

29. Click **Finish** to close the configuration wizard. You are ready to log into the PaperVision Enterprise application.

Uninstalling PaperVision Enterprise

This operation will remove PaperVision Enterprise from the system. However, user-generated data, including processed files, databases, images, etc. will remain intact.

To uninstall PaperVision Enterprise:

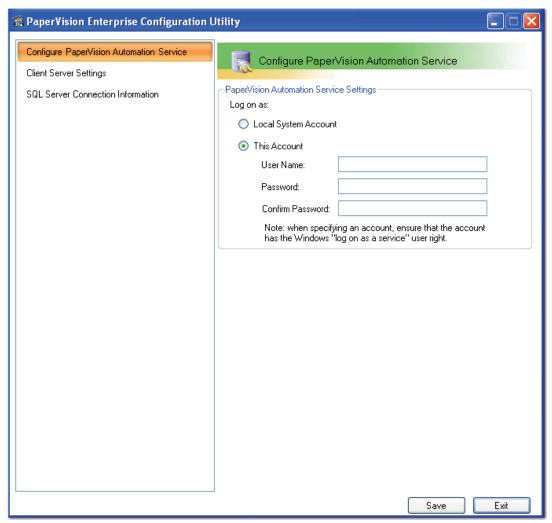
- 1. Open the Windows Control Panel.
- 2. Select the **Add/Remove Programs** applet.
- 3. Select PaperVision Enterprise and click Add/Remove.

Chapter 4 - Getting Started in PaperVision Enterprise

After PaperVision Enterprise has been successfully installed and before users can begin working with the software, a global administrator must complete several tasks within the PaperVision Administration Console, such as creating an entity (with associated projects) and adding new PaperVision Enterprise users. Additionally, several global administration operations, such as configuring system settings and Automation Service Scheduling operations, must be performed by a global administrator. Entity and project configuration, global administration operations, and all other administration functions are described in the accompanying PaperVision Enterprise Administration and System Architecture Reference Guide.

PaperVision Enterprise Configuration Utility

After installation, if you need to reconfigure any component of PaperVision Enterprise such as the PaperVision Automation Service, SQL Server connection, or Client Server settings, you can use the PaperVision Enterprise Configuration Utility. To open the tool, open Start > Programs > Digitech Systems > PaperVision Enterprise Configuration Utility.



PaperVision Enterprise Configuration Utility

Chapter 4 – Getting Started in PaperVision Enterprise

The following table describes the settings available for reconfiguration in each screen of the PaperVision Enterprise Configuration Utility. After you complete your changes in each screen, click **Save**, and then click **Exit**.

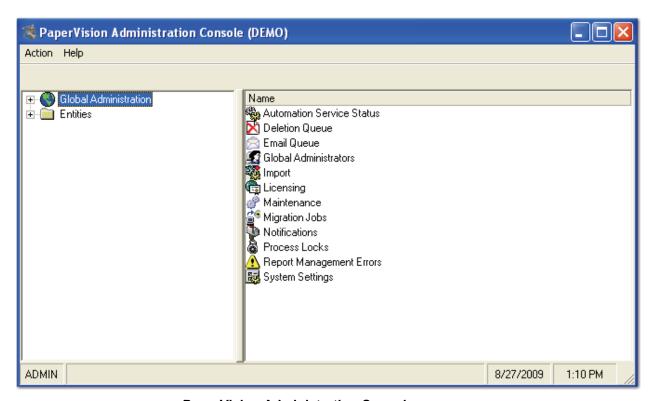
Configuration Utility Screen	Settings Available for Reconfiguration
Configure PaperVision Automation Service	Account under which the PaperVision Enterprise Automation Service will run, including User Name and Password
Client Server Settings	Client Server Settings, including Port Number, Physical and Virtual Paths
SQL Server Connection Information	SQL Server Connection Information, including Server IP/Name, Database Name, User Name, Password, Connection Type, and TCP/IP Port

Launching the PaperVision Administration Console

The PaperVision Administration Console provides a single point of administration for everything related to PaperVision Enterprise, including workflow configuration. The tool can manage an unlimited number of entities from a single sign-on. Only global administrators, system administrators, and workflow administrators can log into the administration console.

To launch the PaperVision Administration Console for the first time, double-click the **PaperVision Admin Console** icon on the desktop, or select **Start > Programs > Digitech Systems > PaperVision Admin Console**. Log in using the default user name (ADMIN) and password (ADMIN) for the system administrator. Selecting the **Global** checkbox determines whether you are logging in as a global or system administrator. Initially, log in as a global administrator.

Since you have already configured PaperVision Enterprise in the Configuration Wizard, you are initially presented with the main Administration Console screen. Documentation describing the features and functionality of the PaperVision Administration Console, including global administration, is found in the accompanying PaperVision Enterprise Administration and System Architecture Reference Guide.



PaperVision Administration Console

Launching the PaperVision Enterprise Web Client

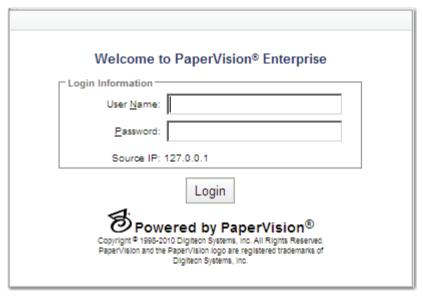
The PaperVision Enterprise Web Client is accessed through your web browser, and includes all client functionality and operations such as document viewing, searching, indexing, and other document manipulation operations. When you initially log into the Web Client application, you must change your current password.

To launch the Web Client:

- 1. Launch your web browser.
- 2. In your browser's address bar, type in the PaperVision Enterprise URL provided by your administrator, which follows the general format:

http://<pveurladdress>/default.aspx

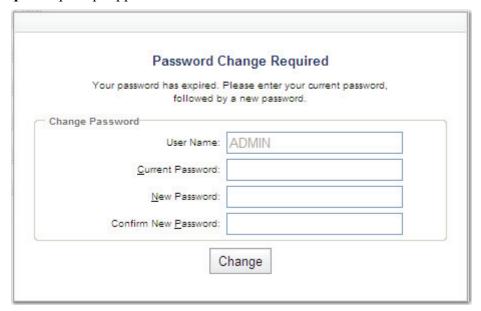
The **Login** prompt appears.



Login Prompt

Chapter 4 - Getting Started in PaperVision Enterprise

3. Type your user name and password, and then click **Login**. The **Password Change Required** prompt appears.



Password Change Required

- 4. Enter your current password.
- 5. Enter and confirm your new password.
- 6. Click **Change** (or, press **Enter**). The main PaperVision Enterprise screen appears, displaying the directories containing your projects, worksteps, destruction lists, system settings, etc. Documentation describing the features and functionality of the PaperVision Enterprise Web Client is found in the accompanying **PaperVision Enterprise User Guide.**

Appendix A - Microsoft Office 2007 MIME Types

The following multi-purpose internet mail extensions (MIME) are supported by PaperVision Enterprise. Each Microsoft Office 2007 MIME type listed below follows the general format "application/octet stream."

.xlsx

application/vnd.openxmlformats-officedocument.spreadsheetml.sheet

.xltx

application/vnd.openxmlformats-officedocument.spreadsheetml.template

.potx

application/vnd.openxmlformats-officedocument.presentationml.template

.ppsx

application/vnd.openxmlformats-officedocument.presentationml.slideshow

.pptx

application/vnd. openxml formats-office document. presentation

.sldx

application/vnd.openxmlformats-officedocument.presentationml.slide

.docx

application/vnd.openxmlformats-officedocument.wordprocessingml.document

.dotx

application/vnd.openxmlformats-officedocument.wordprocessingml.template

.xlam

application/vnd.ms-excel.addin.macroEnabled.12

.xlsb

application/vnd.ms-excel.sheet.binary.macroEnabled.12

Appendix B - Setting Up Process Redirection

PaperVision Enterprise offers the ability to have web servers redirect their processing to separate application servers with PaperVision Enterprise installed on them. Configuring a web server to use a separate application server is as easy as creating/modifying a single file on the web server. To do this, create a **PVDM.ini** in the **Program Files\Digitech Systems\Common Files** directory.

Insert the following two lines of text:

```
[PVDM]
REDIRECTREQ=http://yourappserverhere/
```

If your web server sits behind a load balancer or is being accessed via non-standard ports, you should also add the following lines:

```
[PVDM-GLOBALSYSTEM]
WEBURL=http://yourwebserverhere/
```

Or, you can insert the following lines of text with a non-standard port number (in this example, 676):

```
[PVDM-GLOBALSYSTEM]
WEBURL=http://yourwebserverhere:676/
```

Note:

Alternatively, these URL addresses can contain the "https" protocol identifier.

If your web server will redirect to another web server (not just another application server), you should add the following line to the [PVDM] section of the file:

```
REDIRECTWEBFILEOPS=1
```

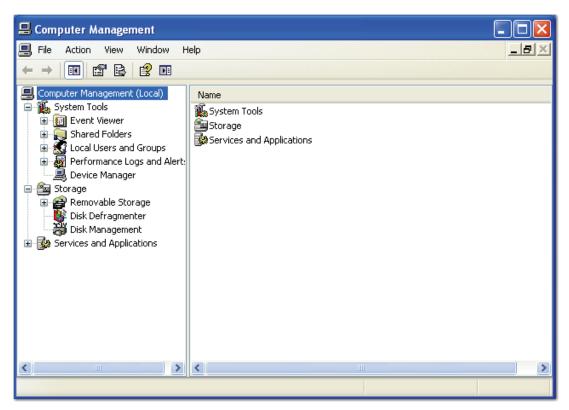
Since the web server will never need to interact with the database, it is not necessary (nor recommended for security reasons) to start the PaperVision Administration Console and connect to a database on the web server.

Appendix C – Changing the Windows Service Account

The PaperVision Automation Service and PaperVision Client Service automate tasks that require no human intervention. Both services run as true Windows services and are started automatically the first time the PaperVision Administration Console is launched. Since both are running as true services, no user must be logged into the computer in order for both to perform their respective processing. By default, they are configured to run under the Local System account. These accounts generally do not have access to network shares as well as a number of directories on the computer. As such, it may be necessary to change the account each service is using.

To change the Windows Service account:

1. Right-click **My Computer**, and select **Manage**. The **Computer Management** screen appears.



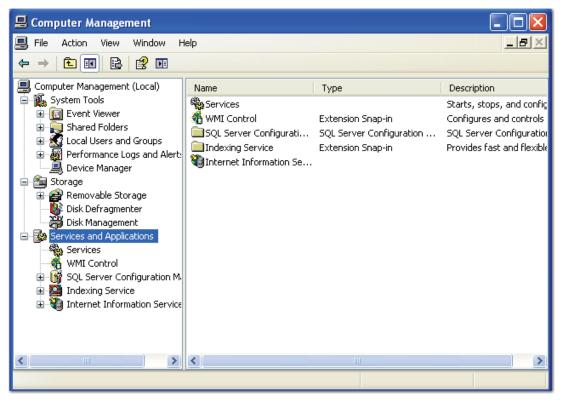
Computer Management

Appendix C - Changing the Windows Service Account

2. Select Services and Applications > Services.

Note:

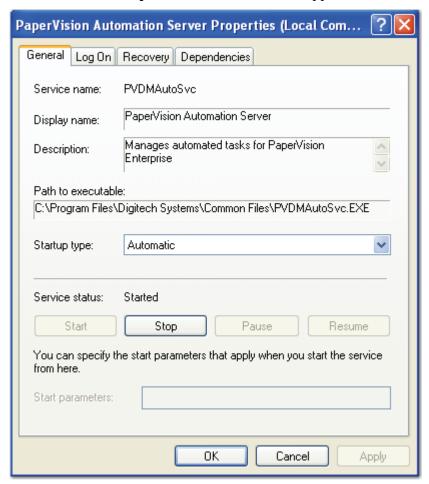
For Microsoft Windows Server 2008, select **Configuration > Services**).



Computer Management - Services and Applications

Appendix C - Changing the Windows Service Account

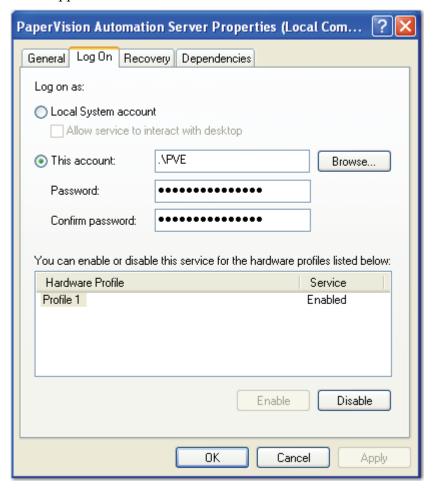
3. Scroll down through the list of services, and select the **PaperVision Automation**Server (or **PaperVision Client Service**). In this example, the **PaperVision**Automation Server Properties – General screen appears.



PaperVision Automation Server Properties – General

Appendix C - Changing the Windows Service Account

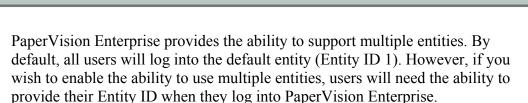
4. Select the Log On tab. The PaperVision Automation Server Properties – Log On screen appears.



PaperVision Automation Server Properties - Log On

- 5. Select This account.
- 6. Select the **Browse** button and choose a user account that has the necessary permissions.
- 7. Enter the user account's password.
- 8. Re-enter the user account's password.
- 9. Click **OK** to apply the changes. Windows will configure the service and account appropriately.
- 10. Select the General tab.
- 11. Click **Stop** to stop the service.
- 12. Click **Start** to restart the service.
- 13. Click OK.

Appendix D – Enabling Multiple Entity Support



To enable multiple entity login for the PaperVision Administration Console:

- 1. Locate the **PVDM.INI** file in the **Digitech Systems\Common Files** directory where PaperVision Enterprise was installed.
- 2. In that file, insert the following lines of text:

[PVDM]
LOGINENTID=1

Note:

The [PVDM] section may already exist.

3. Save the file.

The next time the PaperVision Administration Console is launched, the user will be prompted to provide the Entity ID. Providing an Entity ID of zero (0) will cause PaperVision Administration Console to attempt to log a user in as a global administrator. Zero is not valid for the PaperVision Enterprise application because global administrators cannot access documents.

To enable multiple entity login for the PaperVision Enterprise Web Client:

- 1. Locate the **global_en.resx** file in the **PaperVision\PVEWeb\App_GlobalResources** directory where PaperVision Enterprise was installed, and open it with a text editor.
- 2. In that file, change the "false" constant in the following line to "true":

```
<data name="gblLoginShowEntID" xml:space="preserve">
<value>true</value>
```

3. Save the file. Upon the next login, the user will be prompted to provide an Entity ID.

Note:

Alternatively, you can show (or hide) your entity ID in the user Login window by modifying the Web Client option in System Settings > User Options > Display Settings > Display Entity ID or Hide Entity ID.

Appendix E - Configuring DEP on Windows XP



WARNING

Modifying settings within any operating system may adversely affect overall system performance. If you are unsure of the potential consequences resulting from modifying Data Execution Prevention (DEP) settings, please contact your IT department before proceeding with the following instructions. Changing the following DEP settings will not provide any DEP coverage for any part of your operating system, regardless of hardware DEP support.

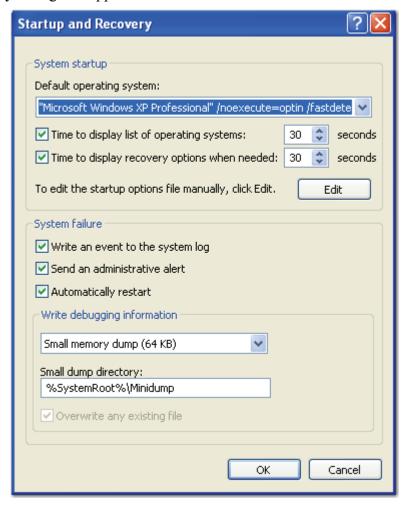
Microsoft Windows XP SP2 uses a set of hardware- and software-based technologies called Data Execution Prevention (DEP) to prevent malicious code from being inserted into areas of computer memory reserved for non-executable code. As a result, DEP may prevent certain operations from executing properly in PaperVision Enterprise.

To modify Windows XP DEP settings:

- 1. Log into your computer using an account with local Administrator rights.
- 2. Right-click on My Computer and select Properties.
- 3. Click the **Advanced** tab.

Appendix E - Configuring DEP on Windows XP

4. In the **Startup and Recovery** section, click the **Settings** button. The **Startup and Recovery** dialog box appears.



Startup and Recovery

- 5. In the **System startup** section, click the **Edit** button. The **Boot.ini** file opens in the default text editor.
- 6. Locate the text "/noexecute=OptIn."
- 7. Change the OptIn value to "AlwaysOff." The text now appears as ":/noexecute=AlwaysOff."



WARNING!

Enter the specified text exactly as it appears in the preceding steps. If the text is altered, your computer may not reboot.

- 8 Select File > Save
- 9. Click **OK** to close the **Startup and Recovery** window.

Appendix E – Configuring DEP on Windows XP

- 10. Click **OK** to close the **System Properties** windows.
- 11. Restart your computer.

The PaperVision Enterprise Installation and Configuration Wizard automatically configures the PaperVision Enterprise and PaperVision Authentication Gateway web sites within IIS. This appendix is provided as a reference in case you need to modify IIS 6.0 or 7.0 settings at a later time. If you intend to use this computer as a PaperVision.net Enterprise web server or a PaperVision Enterprise application server, you must configure Microsoft's Internet Information Server (IIS) to use the PaperVision.net Enterprise ASP and ASPX pages.

Security Considerations

IIS allows configuration of the user account that will be used when a user is anonymously connected to the PaperVision.net Enterprise web site. It is important that the user account (usually named IUSR_SERVERNAME) has the following NTFS directory permissions in order for PaperVision.net to operate properly:

- Full access to the <Program Files>\Digitech Systems directory
- Read and Execute access to the PaperVision.net Enterprise web server directory where you selected to install PaperVision Enterprise
- Full access to the PaperVision Enterprise cache directory (WebServer\Cache)
- Full access to the directory where PaperVision data will reside
- Full access to any jukeboxes or any other directories where images (i.e. data groups/CDs) reside

Since the default account does not have these permissions, you must manually assign them to the user account or select a user account that already has the permissions. In the configuration example presented, selecting a different user account will be demonstrated.

Configuring IIS 6.0

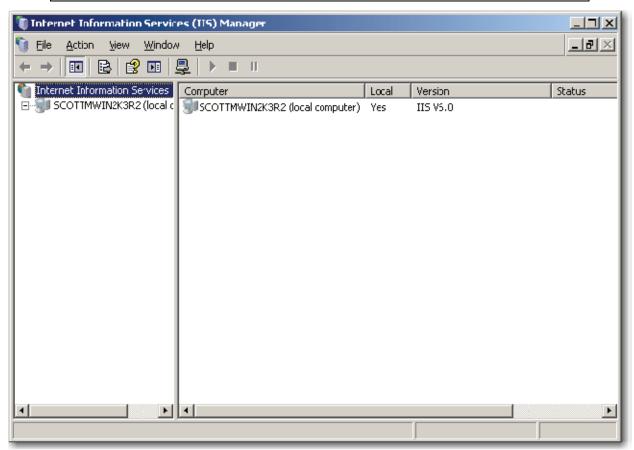
IIS 6.0 is the version of IIS that is included with Microsoft Windows Server 2003 and some versions of Microsoft Windows XP. This section assumes that Microsoft IIS is already installed on your computer with the ASP.NET and Active Server Pages components.

To configure Microsoft Windows Server 2003's IIS 6.0 for use with PaperVision Enterprise:

1. From the **Start** menu, select **Programs > Administrative Tools – Internet Information Services (IIS) Manager.** The IIS Management Console will be started.

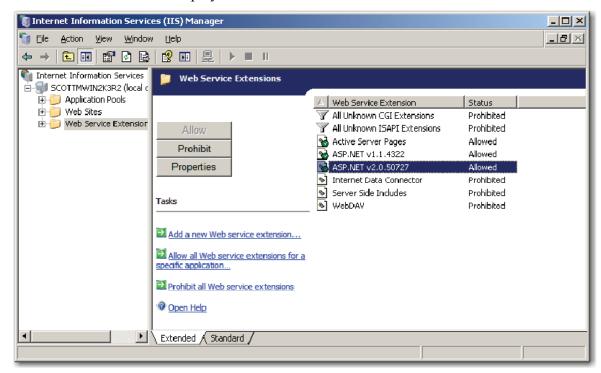
Note:

It is recommended that you stop (and possibly delete) the default web site and default FTP site if you do not plan on using those.



IIS Management Console

2. Expand your server and select **Web Service Extensions**. The **Web Service Extensions** screen is displayed.



Web Service Extensions

3. PaperVision Enterprise utilizes both ASP (Active Server Pages) and ASP.NET. Ensure that both **Active Server Pages** and **ASP.NET v2.0.50727** are **Allowed**.

4. Right click on **Web Sites** and select **New > Web Site** from the menu. The **Web Site Creation Wizard** screen is displayed.



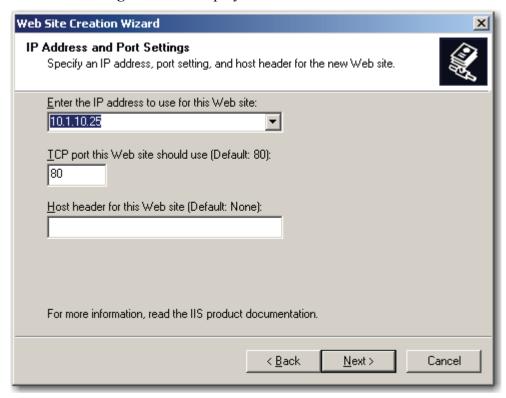
Web Site Creation Wizard

5. Select **Next**. The **Web Site Description** screen is displayed.



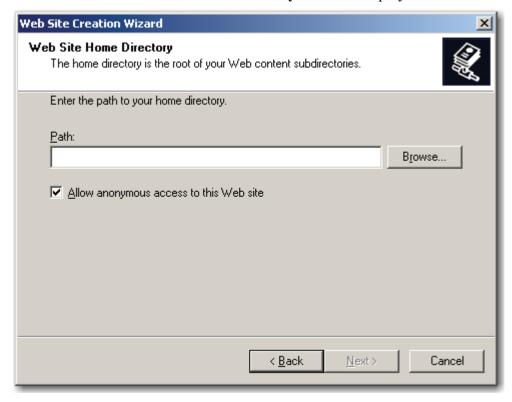
Web Site Description

6. Enter the name or description of the new site, and then click **Next**. The **IP Address** and **Port Settings** screen is displayed.



IP Address and Port Settings

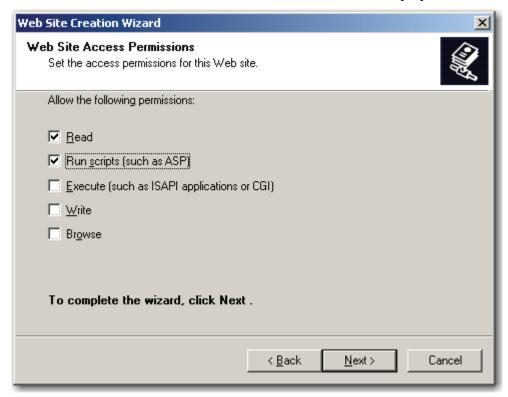
7. From the drop-down list, select the **IP Address** to be used by the new site, and then click **Next**. The **Web Site Home Directory** screen is displayed.



Web Site Home Directory

8. Select the **Browse** button to locate the **PVEWeb** directory where the PaperVision Enterprise web server was installed.

9. Click Next. The Web Site Access Permissions screen is displayed.



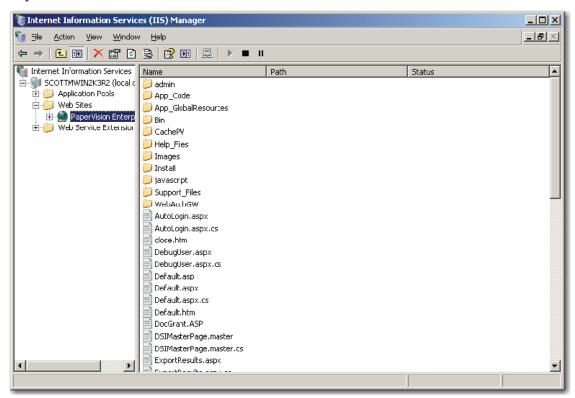
Web Site Access Permissions

10. Ensure that only **Read** and **Run** scripts are selected, and then click **Next**. The **Web Site Wizard Completed** screen is displayed.



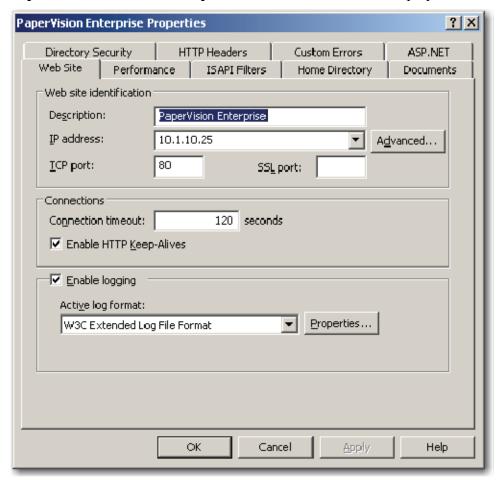
Web Site Wizard Completed

11. Select **Finish** to complete the wizard. The new site will be created and listed under your server as shown below.



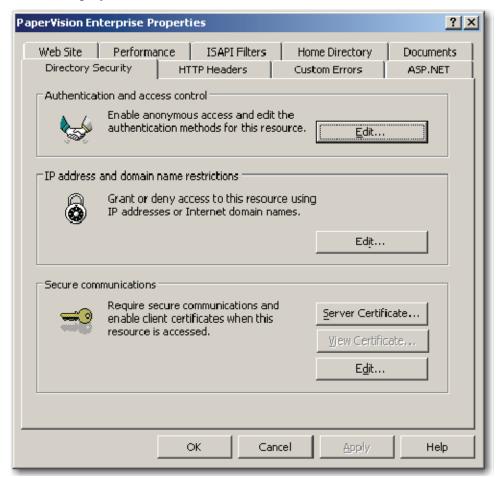
Web Site Created

12. After the site has been created, configuration settings for the **Anonymous Access** user account will be changed. Right-click on the newly-created web site, and select **Properties**. The **Web Site Properties** – **Web Site** screen is displayed.



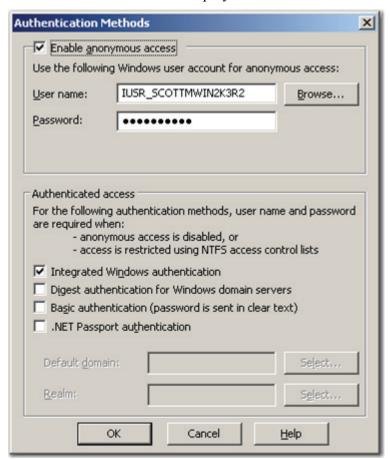
Web Site Properties - Web Site

13. Select the **Directory Security** tab. The **Web Site Properties – Directory Security** screen is displayed.



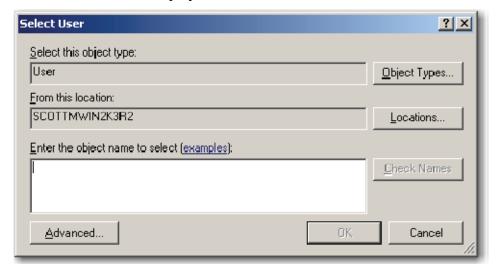
Web Site Properties - Directory Security

14. Under Authentication and access control, select the Edit button. The Authentication Methods screen is displayed.



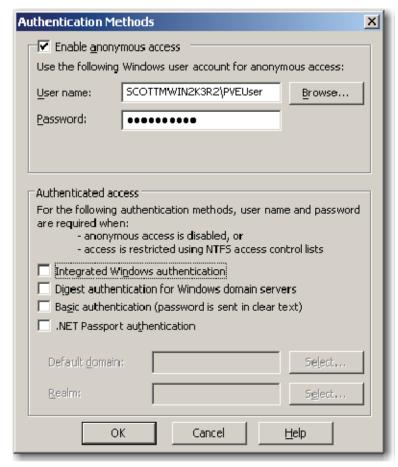
Authentication Methods

15. Ensure that **Enable Anonymous access** is selected, and then choose **Browse**. The **Select User** screen is displayed.



Select User

- 16. Select a user that has the appropriate permissions, and then click **OK**. The selected user account is now displayed in the **Authentication Methods** screen.
- 17. Enter the user's password.
- 18. Remove any Authenticated access methods (i.e., Integrated Windows authentication). The **Authentication Methods** screen is displayed.



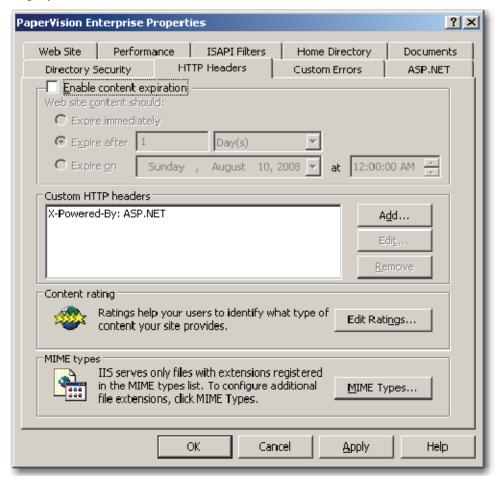
Authentication Methods

19. Click **OK**, and the **Confirm Password** prompt appears.



Confirm Password

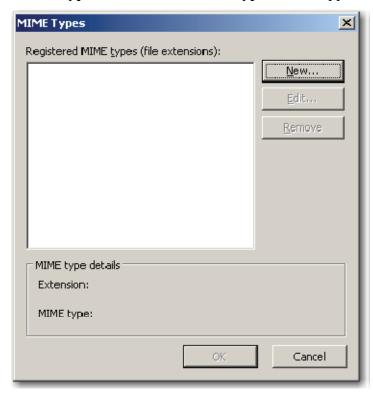
- 20. Re-enter the password, and then click **OK**. The **Web Site Properties Directory Security** screen is displayed.
- 21. Select the **HTTP Headers** tab. The **Web Site Properties HTTP Headers** screen is displayed.



Web Site Properties – HTTP Headers

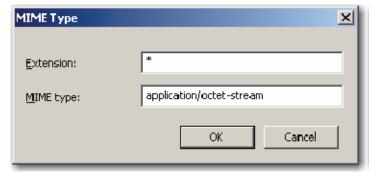
IIS 6.0 has a security feature that only allows requests for known file extensions. Under normal environments, this is a very good security feature to have. However, in a document management system, the documents that are served up may have any file extension. Additionally, PaperVision Enterprise uses unique file extensions for full-text data and document annotations that essentially require the disabling of this security setting.

22. Select the MIME Types button. The MIME Types screen appears.



MIME Types

23. Select New, and the MIME Type screen is displayed.



MIME Type

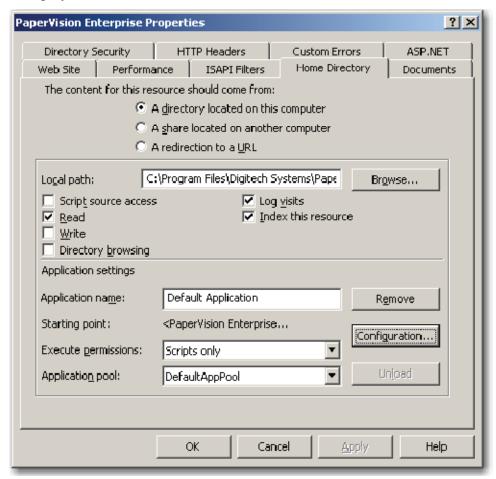
24. Enter an asterisk ("*") for the **Extension**.

25. Enter "application/octet-stream" for the MIME type, and then select **OK**. The new entry is added to the **MIME Types** screen.



MIME Types

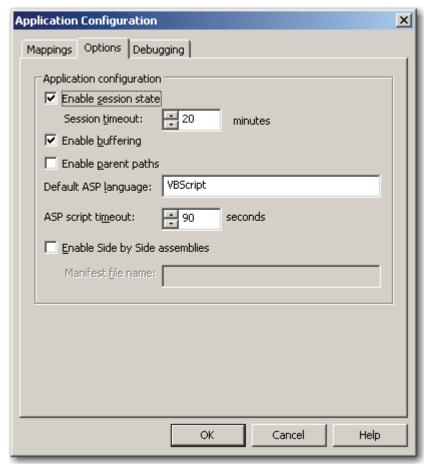
- 26. Select **OK** to close the **MIME Types** screen. The **Web Site Properties HTTP Headers** screen is displayed.
- 27. Select the **Home Directory** tab. The **Web Site Properties Home Directory** screen is displayed.



Web Site Properties - Home Directory

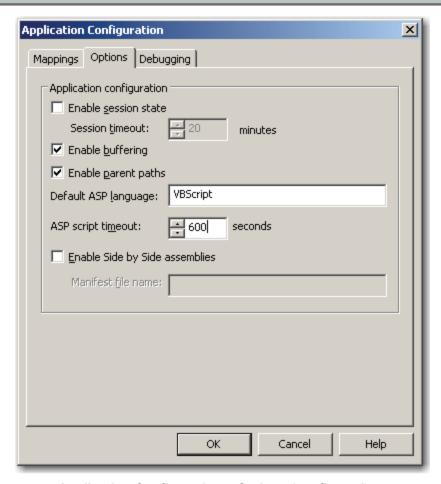
28. Select the **Configuration** button. The **Application Configuration - Mappings** screen is displayed.

29. Select the **Options** tab. The **Application Configuration – Options** screen is displayed.



Application Configuration - Options

- 30. PaperVision.net Enterprise does not make use of IIS session state. This greatly enhances the performance of the PaperVision.net Enterprise application. As such, uncheck **Enable session state.**
- 31. PaperVision.net Enterprise uses IIS parent paths, so select **Enable parent paths.**
- 32. When a user executes a function that takes a considerable amount of time (i.e. running large reports), it can often exceed the default ASP script timeout. As such, you may want to enter a larger **ASP script timeout** value.



Application Configuration – Options (configured)

- 33. Select **OK** to save your Application Configuration settings.
- 34. Select **OK** to save the site properties.

Now that IIS is configured you must decide whether to use process redirection (as described in **Appendix B – Setting Up Process Redirection**). If you decide not to use process redirection, you will have to configure the system settings as described in the chapter Global Administration in the accompanying **PaperVision Enterprise Administration and System Architecture Reference Guide.**

Configuring IIS 7.0

IIS 7.0 is the version of IIS that is included with Microsoft Windows Server 2008 and Microsoft Windows Vista. In Microsoft Windows Server 2008, it is highly recommended that you add the following two server roles if they have not already been added:

- Application Server
- Web Server (IIS)

Additionally, when selecting the role services for the "Web Server (IIS)" role, be sure to add the following role services (in addition to the defaults):

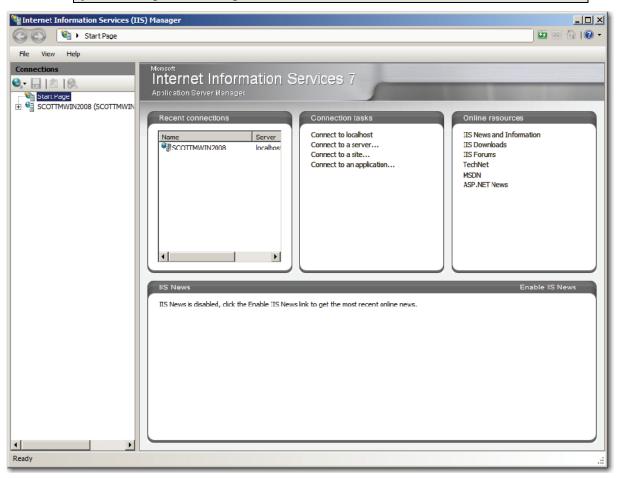
- ASP.NET
- ASP
- Windows Authentication (if using the PaperVision Authentication Gateway as described in Appendix G – Remote Authentication)

To configure Microsoft Windows Server 2008's IIS 7.0 for use with PaperVision Enterprise:

1. From the **Start** menu, select **Programs > Administrative Tools > Internet Information Services (IIS) Manager.** The IIS Manager will be started.

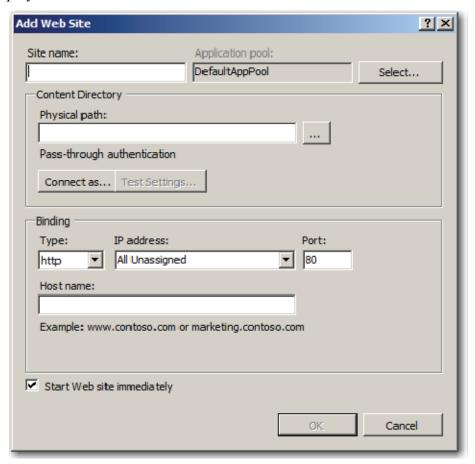
Note:

It is recommended that you stop (and possibly delete) the default web site if you do not plan on using it.



IIS Manager

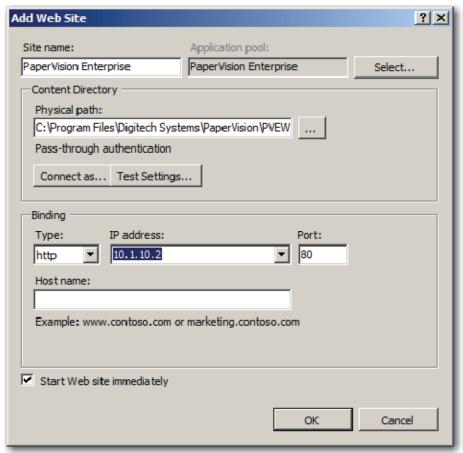
2. Right click on your server and select **Add Web Site**. The **Add Web Site** screen is displayed.



Add Web Site

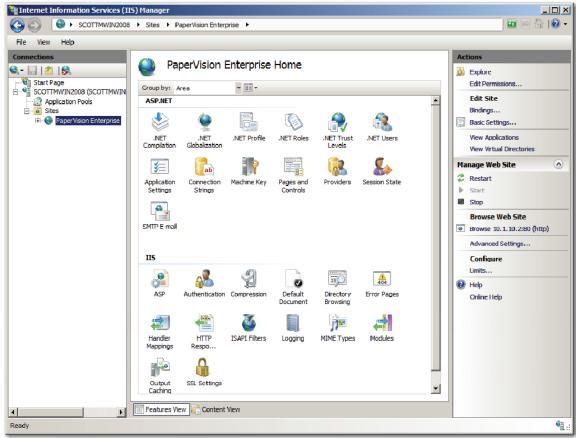
- 3. Enter a **Site name**. Note than an associated Application Pool is automatically created with the same name. It is strongly suggested that you use this newly created application pool.
- 4. Select the ellipsis button next to the **Physical Path** field and choose the **PVEWeb** directory where the PaperVision Enterprise web server was installed.

5. Select the **IP Address** to be used by the new site.



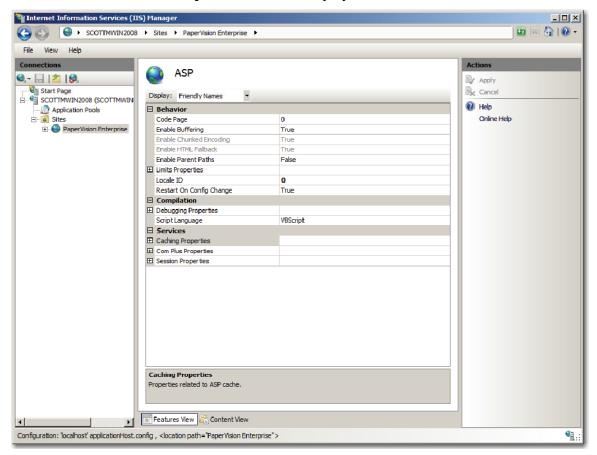
Add Web Site (Configured)

6. Select **OK**. The new site will be created and listed under your server as shown below.



Web Site Created

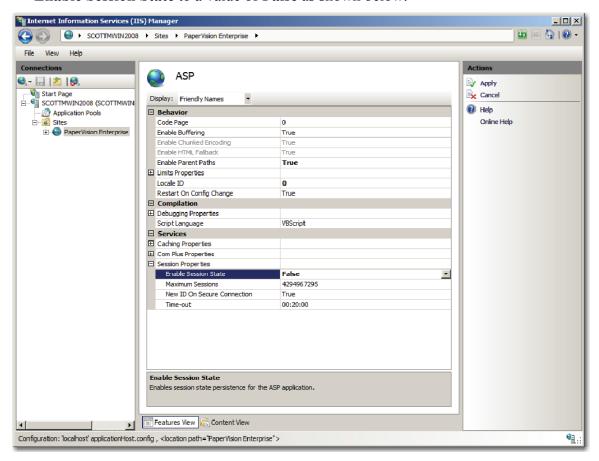
7. After the site has been created, several configuration settings must be made to the Anonymous Access user account as described earlier. Under the **IIS** section, double click **ASP**. The **ASP Properties** screen is displayed.



ASP Properties

8. Expand Session Properties.

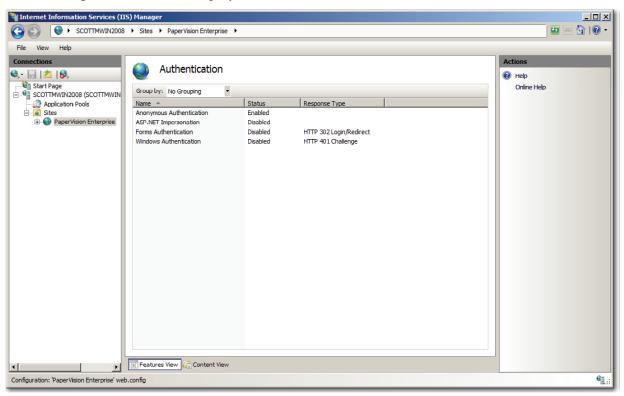
9. PaperVision.net Enterprise does not make use of IIS session state. This greatly enhances the performance of the PaperVision.net Enterprise application. As such, set **Enable Session State** to a value of **False** as shown below.



ASP Properties (Enable Session State – False)

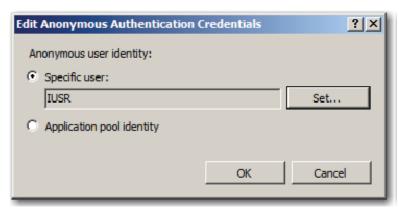
- 10. Click the **Apply** link (top, right corner of the IIS Manager).
- 11. Click your site in the left pane to display the configuration options again.

12. Under the **IIS** section, double click on **Authentication**. The **Authentication Properties** screen is displayed.



Authentication Properties

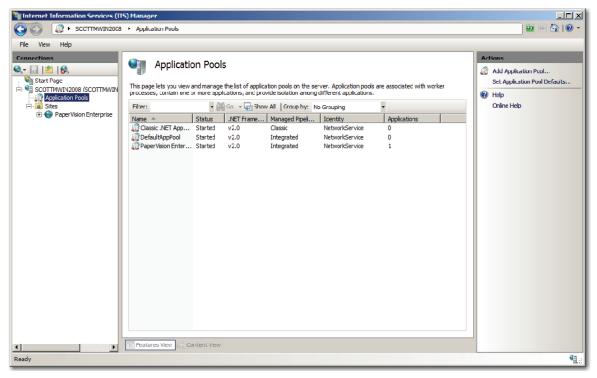
13. Highlight **Anonymous Authentication** and click the **Edit** link (top, right corner of the IIS Manager). The **Edit Anonymous Authentication Credentials** screen is displayed.



Edit Anonymous Authentication Credentials

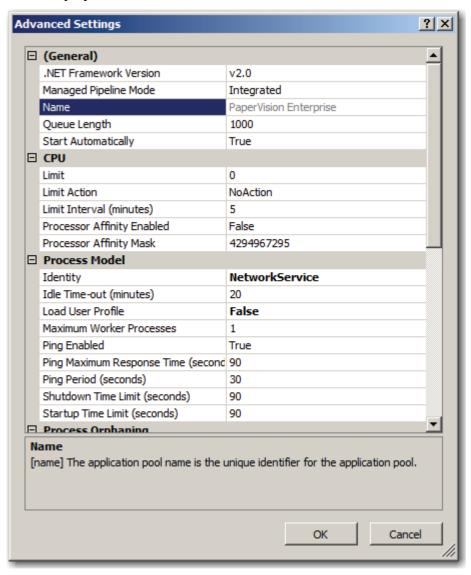
14. Select **Application pool identity** and click **OK**.

15. To configure the appropriate user in the Application Pool's properties, select **Application Pools**. The **Application Pools** screen is displayed.



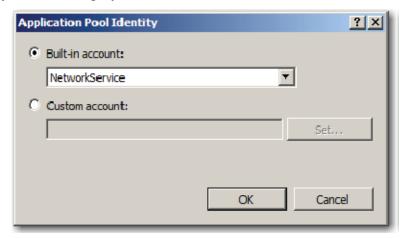
Application Pools

16. Right-click on the application pool used by your site (typically the same name as your site) and choose **Advanced Settings**. The **Application Pool** – **Advanced Settings** screen is displayed.



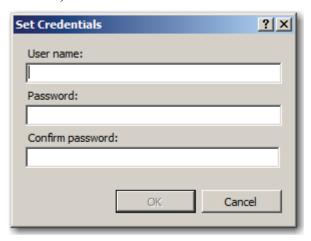
Application Pool - Advanced Settings

17. Under **Process Model > Identity**, click the ellipsis button. The **Application Pool Identity** screen is displayed.



Application Pool Identity

18. Select Custom account, and then click Set. The Set Credentials screen is displayed.



Set Credentials

- 19. Enter the **User Name** and **Password** (with a confirmed password) of the account discussed in the **Security Considerations** section at the beginning of this appendix, and then click **OK**.
- 20. Click **OK** to save the Application Pool Identity settings.
- 21. If you are running PaperVision Enterprise on a 64-bit operating system, set the **General Enable 32-Bit Applications** value to **True**.

Note:

This setting is only available on 64-bit operating systems.

22. Click **OK** to save the Application Pool Advanced Settings.

- 23. Recycle (stop and restart) the application pool by selecting the **Recycle** link (top, right corner of the IIS Manager).
- 24. Now that IIS is configured you must decide whether to use process redirection (as described in Appendix B). If you decide not to use process redirection, you will have to configure the system settings as described in the Global Administration chapter in the accompanying PaperVision Enterprise Administration and System Architecture Reference Guide.

PaperVision Enterprise includes remote authentication gateway capabilities that allow organizations to integrate Windows authentication/single sign-on in a secure manner, regardless of whether the PaperVision repository is located in the same Active Directory domain as the authenticated users. Additionally, it allows users to access their repository both from within their Active Directory domain and external to that domain, when Windows authentication/single sign-on is unavailable. This is accomplished as follows:

- 1. The user opens the web browser and points it to the installed "PaperVision Authentication Gateway" server's web site. This "PaperVision Authentication Gateway" IIS web site installation must have the ability to authenticate the user against Active Directory.
- 2. The authentication gateway reads an encrypted configuration file which indicates the encryption key value that will be used to encrypt the user's credentials. By using the security context that IIS is running under, the gateway determines the user's domain name and user name (i.e. DOMAIN\USER). It then encrypts this as the PaperVision user name using the specified encryption key value.
- 3. The gateway then redirects the user's browser to their standard PaperVision repository's login page (locally within the same domain, or remotely), passing the encrypted login credentials.
- 4. The PaperVision login process automatically detects that remotely authenticated credentials have been passed. As such, it uses the entity security policy's **Remote Authentication Gateway Encryption Key** value (note the value is used, not the name) to decrypt the authenticated credentials. If the credentials have not been encrypted with the specified encryption key value, they will not be able to be decrypted and the user will not be automatically authenticated to the repository. If the credentials are properly encrypted (and hence, can be decrypted), the user is automatically logged in.

It is the common **Remote Authentication Gateway Encryption Key** value between the authentication gateway and the PaperVision repository that ensures only authorized authentication gateways may pass credentials. It is important to note that PaperVision has no visibility into a user's Active Directory password. As such, it is neither necessary nor recommended to maintain consistent passwords between PaperVision and Active Directory for a user.

Remote Authentication Use Scenarios

PaperVision's remote authentication gateway facilities are designed to be used in nearly any environment. Below are three likely scenarios and their general installation steps.

PaperVision Repository within Same Active Directory Domain

In this scenario, the PaperVision Enterprise server is installed as a member of the users' Active Directory domain. Although the easiest way of accomplishing this is to simply use the AutoLogin.ASPX page that is installed in the WebServer directory, doing so requires using Authenticated Access in the web site under which PaperVision Enterprise is running. The primary problem with this is that all activities performed by the server (i.e. database and file access) are performed using the user's Active Directory credentials. As such, each user would have to be given explicit security access to the document storage shares/locations and the database server. A much better manner of handling this situation is to simply setup two different web sites on the same computer (typically requiring an IP address for each site). This allows the server's activities to be performed under a single security context (when the primary web site is hit), while still allowing the user's security context to be determined by the authentication gateway web site. The general installation steps for configuring this scenario are as follows:

- 1. Install and configure the PaperVision Enterprise server as normal (including making the necessary IIS configuration settings) on a server located in the Active Directory domain. Additional information pertaining to this can be found in **Chapter 2, PaperVision Enterprise Server Installation**. However, when installing PaperVision, perform a Custom installation and add the "PaperVision Authentication Gateway" feature.
- 2. Configure a second IIS web site on this server for the PaperVision Authentication Gateway as described later in this appendix.
- 3. Using the PaperVision Administration Console, configure a new encryption key and then select that encryption key in the entity security policy's **Remote Authentication Gateway Encryption Key Name** setting (located in the Authentication tab).
- 4. Run and configure the PaperVision Gateway Settings application as described at the end of Chapter 2, PaperVision Enterprise Server Installation.

PaperVision Repository within a Different Active Directory Domain

In this scenario, the PaperVision server is installed in either a different Active Directory domain (or no domain at all) as the users' Active Directory domain (i.e. PaperVision web server is located in the DMZ which doesn't have a trust relationship with the organization's internal domain). The general installation steps for configuring this scenario are as follows:

- 1. On a server within the user's Active Directory domain, install only the PaperVision Authentication Gateway. This is accomplished by performing a Custom installation and selecting ONLY the following features:
 - PaperVision Enterprise COM API
 - PaperVision Enterprise Server
 - PaperVision Authentication Gateway
- 2. Configure an IIS web site on this server for the PaperVision Authentication Gateway as described later in this appendix.
- 3. Using the PaperVision Administration Console, configure a new encryption key and then select that encryption key in the entity security policy's **Remote**Authentication Gateway Encryption Key Name setting (located in the Authentication tab).
- 4. Run and configure the PaperVision Gateway Settings application as described at the end of Chapter 2, PaperVision Enterprise Server Installation.

PaperVision Repository Provided by ImageSilo

In this scenario, the PaperVision repository is located on a completely separate network, with absolutely no visibility into the users' Active Directory. The general installation steps for configuring this scenario are identical to those described above for **PaperVision Repository within a Different Active Directory Domain.**

Configuring the Authentication Gateway Web Site in IIS 6.0

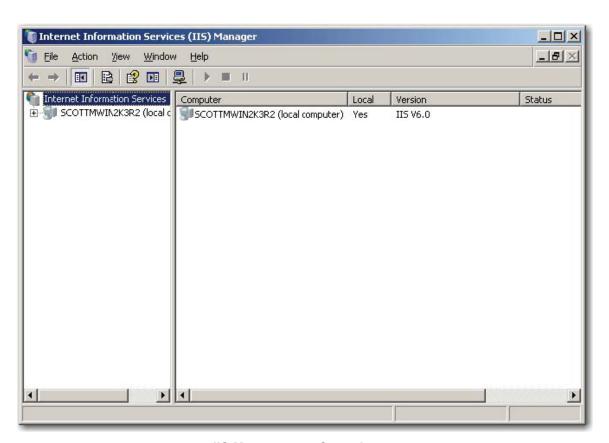
In order to use the PaperVision Authentication Gateway, you must configure Microsoft's Internet Information Server (IIS) to use the PaperVision Authentication Gateway ASPX page(s). IIS 6.0 is the version of IIS that is included with Microsoft Windows Server 2003 and some versions of Microsoft Windows XP. This section assumes that Microsoft IIS is already installed on your computer with the ASP.NET and Active Server Pages components.

To configure the PaperVision Authentication Gateway web site in Microsoft Windows Server 2003's IIS 6.0:

1. From the **Start** menu, select **Programs > Administrative Tools > Internet > Information Services (IIS) Manager.** The IIS Management Console will be started.

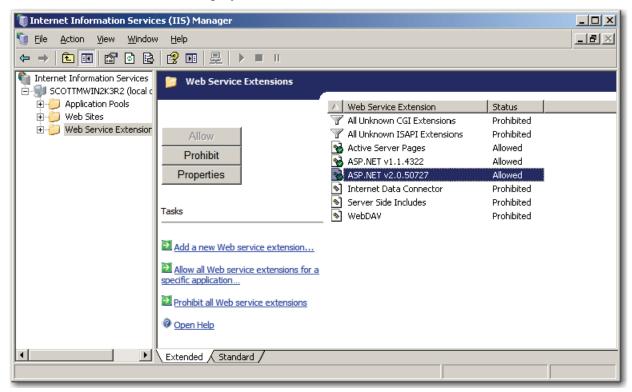
Note:

It is recommended that you stop (and possibly delete) the default web site and default FTP site if you do not plan on using those.



IIS Management Console

2. Expand your server and select **Web Service Extensions**. The **Web Service Extensions** screen is displayed.



Web Service Extensions

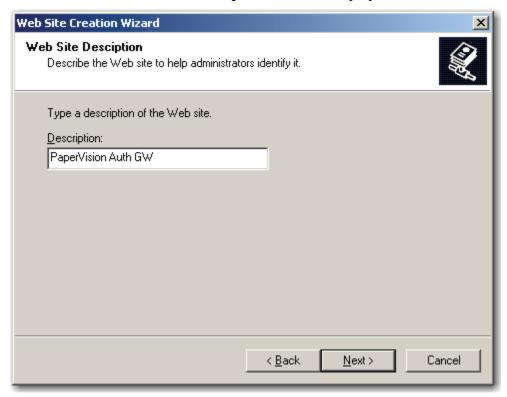
3. PaperVision Enterprise utilizes both ASP (Active Server Pages) and ASP.NET. Ensure that both **Active Server Pages** and **ASP.NET v2.0.50727** are both **Allowed**.

4. Right-click on **Web Sites** and select **New > Web Site** from the menu. The **Web Site Creation Wizard** screen is displayed.



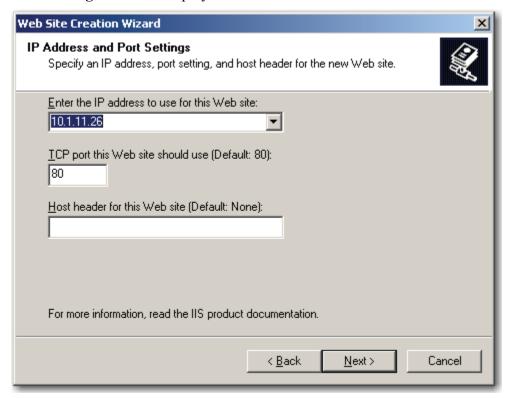
Web Site Creation Wizard

5. Select **Next**. The **Web Site Description** screen is displayed.



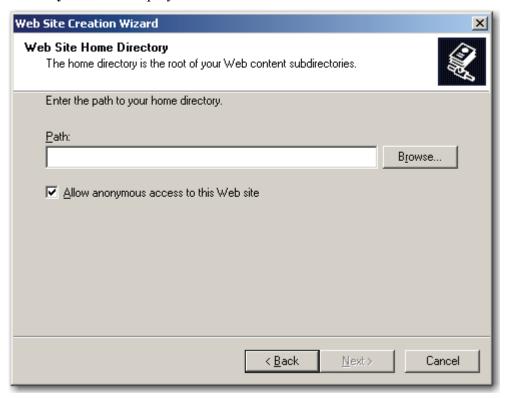
Web Site Description

6. Enter the name or description of the new site and click **Next**. The **IP Address and Port Settings** screen is displayed.



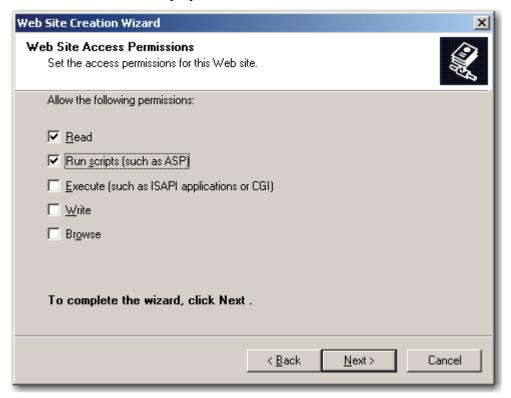
IP Address and Port Settings

7. Select the IP address from the drop-down list and click **Next**. The **Web Site Home Directory** screen is displayed.



Web Site Home Directory

8. Browse to the **PVEWebAuthGW** directory where the PaperVision Enterprise Authentication Gateway was installed, and then click **Next**. The **Web Site Access Permissions** screen is displayed.



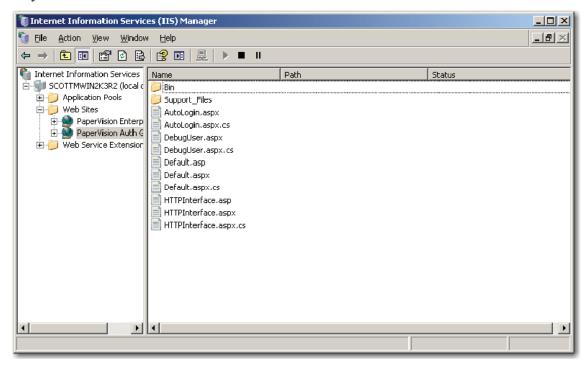
Web Site Access Permissions

9. Ensure that only **Read** and **Run** scripts are selected and click **Next**. The **Web Site Wizard Completed** screen is displayed.



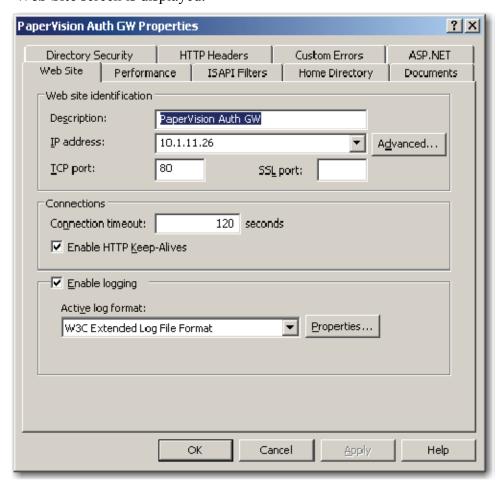
Web Site Wizard Completed

10. Select **Finish** to complete the wizard. The new site will be created and listed under your server as shown below.



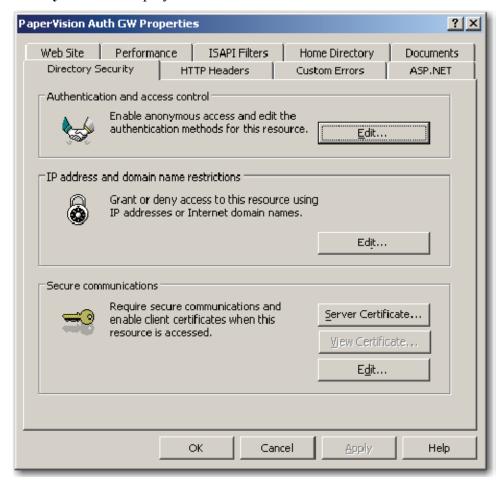
Web Site Created

11. The authentication method and other configuration settings must be changed. Right-click on the newly-created web site and select **Properties**. The **Web Site Properties** – **Web Site** screen is displayed.



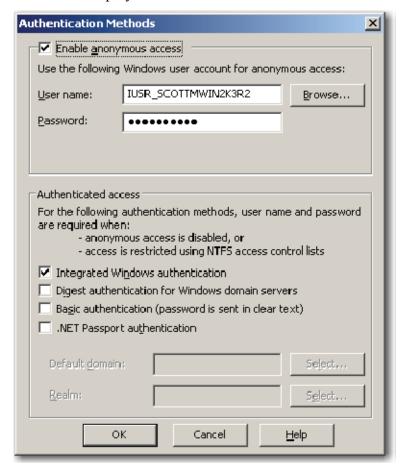
Web Site Properties - Web Site

12. Select the **Directory Security** tab, and the **Web Site Properties – Directory Security** screen is displayed.



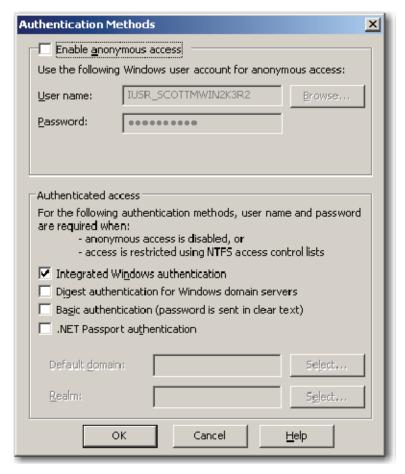
Web Site Properties - Directory Security

13. Under Authentication and access control, select the **Edit** button. The **Authentication Methods** screen is displayed.



Authentication Methods

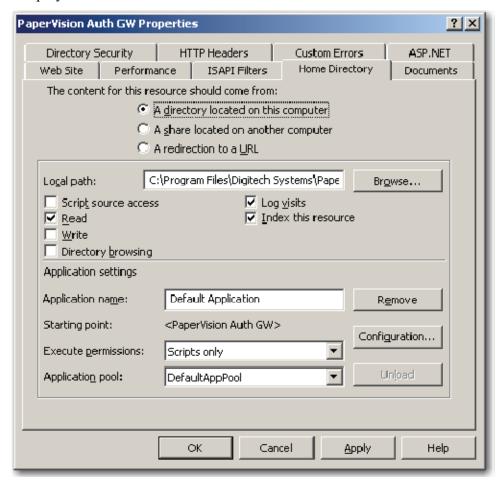
14. Disable Anonymous access, and enable **Integrated Windows authentication** as shown below:



Authentication Methods (configured)

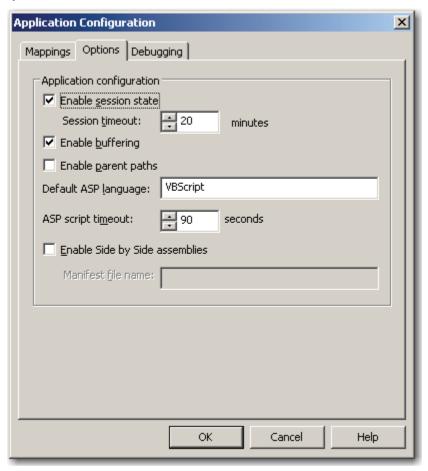
15. Select **OK**, and the **Web Site Properties – Directory Security** screen is displayed.

16. Select the **Home Directory** tab. The **Web Site Properties – Home Directory** screen is displayed.



Web Site Properties - Home Directory

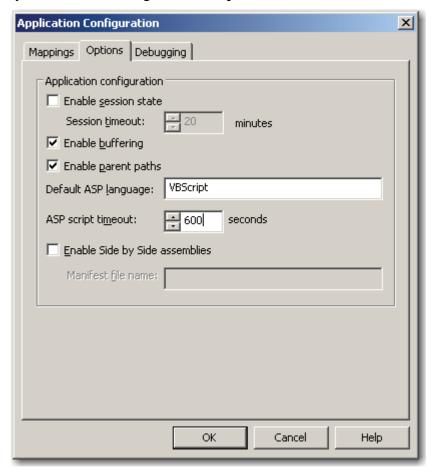
- 17. Select the **Configuration** button. The **Application Configuration Mappings** screen is displayed.
- 18. Select the **Options** tab. The **Application Configuration Options** screen is displayed.



Application Configuration – Options

- 19. PaperVision.net Enterprise does not make use of IIS session state. This greatly enhances the performance of the PaperVision.net Enterprise application. As such, disable the **Enable session state** option.
- 20. PaperVision.net Enterprise uses IIS parent paths, so select Enable parent paths.

21. When a user executes a function that takes a considerable amount of time (i.e. running large reports), it can often exceed the default ASP script timeout. As such, you may want to enter a larger **ASP script timeout** value.



Application Configuration – Options (configured)

- 22. Select **OK** to save your Application Configuration Options.
- 23. Select **OK** to save the site properties.

Configuring the Authentication Gateway Web Site in IIS 7.0

In order to use the PaperVision Authentication Gateway, you must configure Microsoft's Internet Information Server (IIS) to use the PaperVision Authentication Gateway ASPX page(s). IIS version 7.0 is included with Microsoft Windows Server 2008 and Microsoft Windows Vista. In Microsoft Windows Server 2008, it is highly recommended that you add the following two server roles if they have not already been added:

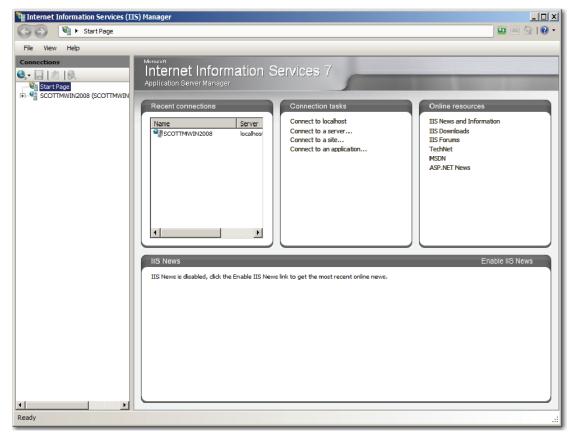
- Application Server
- Web Server (IIS)

Additionally, when selecting the role services for the "Web Server (IIS)" role, be sure to add the following role services (in addition to the defaults):

- ASP.NET
- ASP
- Windows Authentication

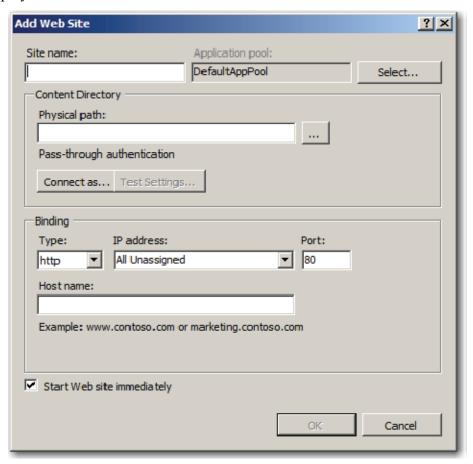
To configure the PaperVision Authentication Gateway web site in Microsoft Windows Server 2008's IIS 7.0:

1. From the **Start** menu, select **Programs > Administrative Tools > Internet Information Services (IIS) Manager**. The IIS Manager will be started.



IIS Manager

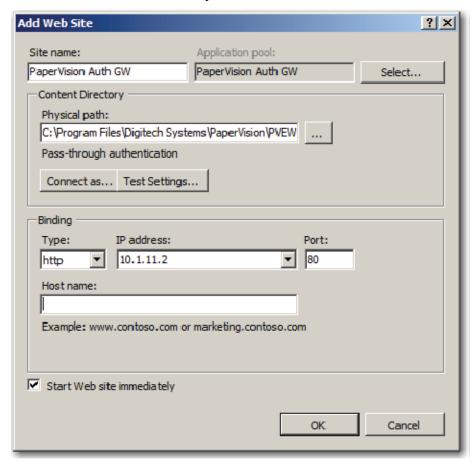
2. Right click on your server, and select **Add Web Site**. The **Add Web Site** screen is displayed.



Add Web Site

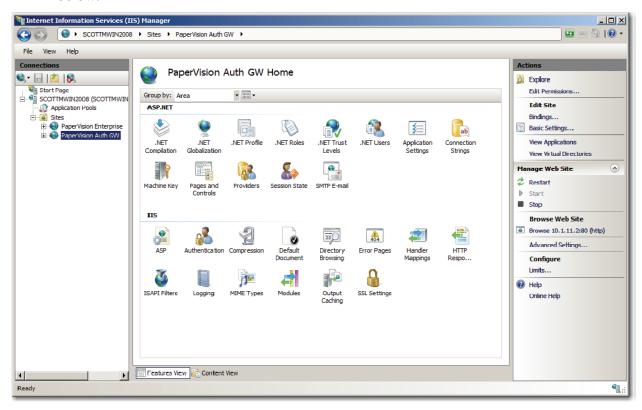
- 3. Enter the **Site name**. Note that an associated Application Pool is automatically created with the same name. It is strongly suggested that you use this newly-created application pool.
- 4. To the right of the **Physical path**, click the ellipsis button to select the **PVEWebAuthGW** directory where the PaperVision Enterprise web server was installed.

5. Select the **IP address** to be used by the new site.



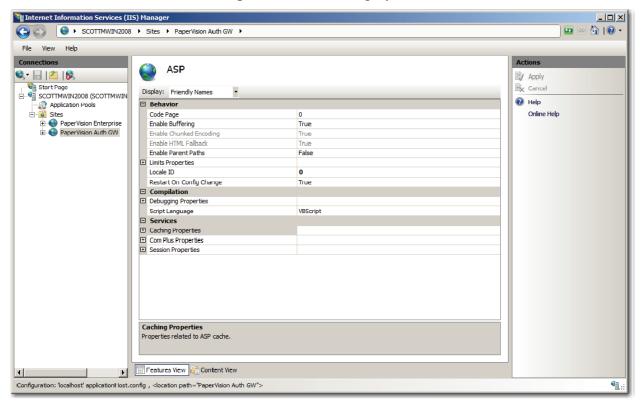
Add Web Site (configured)

6. Select **OK**, and the new site will be created and listed under your server as shown below.



Web Site Created

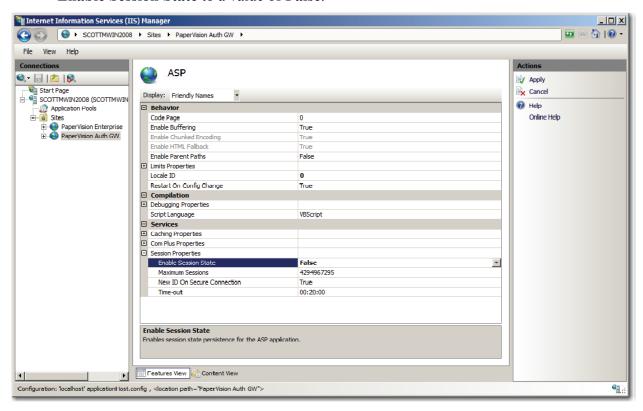
7. Next, some configuration settings need to be changed. Under the **IIS** section, double click on **ASP**. The **ASP Properties** screen is displayed.



ASP Properties

8. Expand Session Properties.

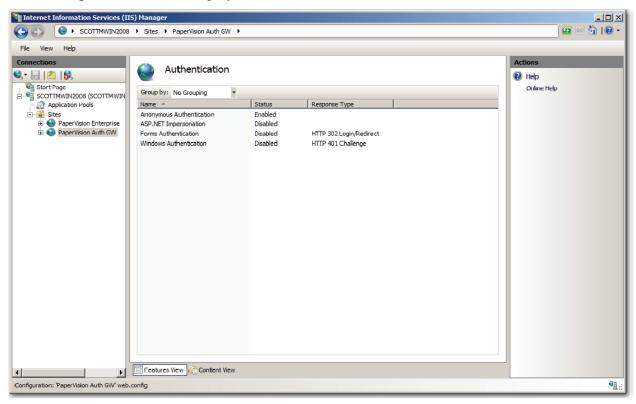
9. PaperVision.net Enterprise does not make use of IIS session state. This greatly enhances the performance of the PaperVision.net Enterprise application. As such, set **Enable Session State** to a value of **False**.



ASP Properties – Enable Session State (False)

- 10. Click the **Apply** link (top, right corner of the IIS Manager).
- 11. Click your site in the left pane to display the configuration options again.

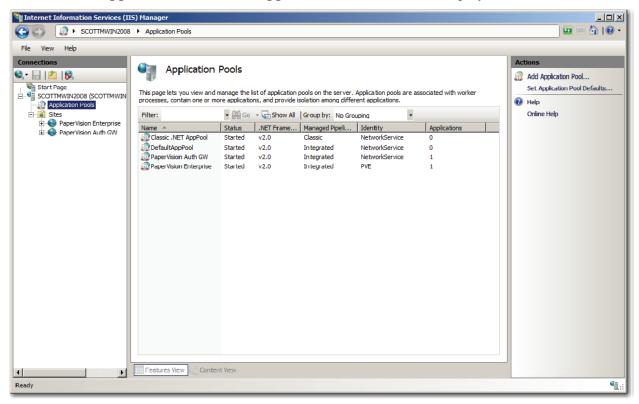
12. Under the **IIS** section, double click on **Authentication**. The **Authentication Properties** screen is displayed.



Authentication Properties

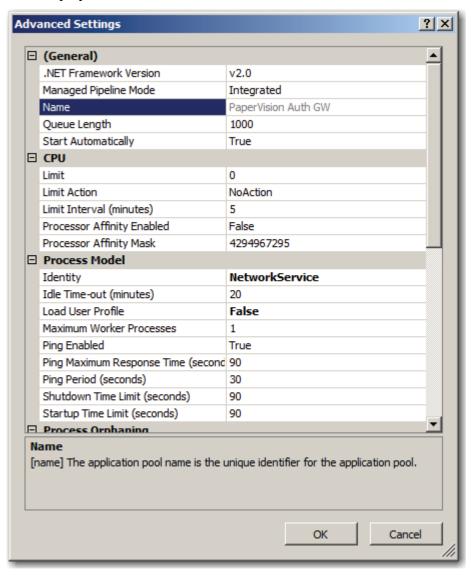
- 13. Highlight **Anonymous Authentication** and click the **Disable** link (top, right corner of the IIS Manager).
- 14. Highlight **Windows Authentication** and click the **Enable** link (top, right corner of the IIS Manager).

15. The authentication settings in the Application Pool's properties must be configured. Select **Application Pools**. The **Application Pools** screen is displayed.



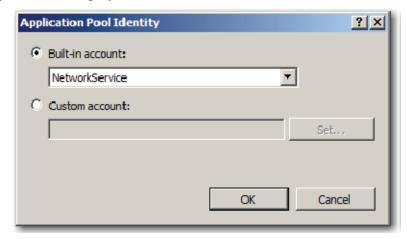
Application Pools

16. Right-click on the application pool used by your site (typically the same name as your site) and choose **Advanced Settings**. The **Application Pool** – **Advanced Settings** screen is displayed.



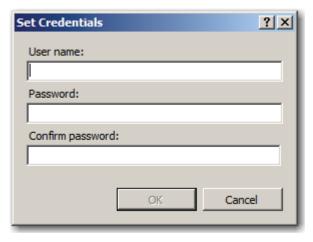
Application Pool – Advanced Settings

17. Under **Process Model > Identity**, click the ellipsis button. The **Application Pool Identity** screen is displayed.



Application Pool Identity

18. Select **Custom** account and click the **Set** button. The **Set Credentials** screen is displayed.



Set Credentials

- 19. Enter the **User name** and **Password** (with a confirmed password) of the account discussed in the **Security Considerations** section at the beginning of **Appendix F**, and then click **OK**.
- 20. Click **OK** to save the Application Pool Identity settings.
- 21. If you are running PaperVision Enterprise on a 64-bit operating system, set the **General Enable 32-Bit Applications** value to **True**.

Note:

This setting is only available on 64-bit operating systems.

- 22. Click **OK** to save the Application Pool Advanced Settings.
- 23. Recycle (stop and restart) the application pool by selecting the **Recycle** link (in the top, right corner of the IIS Manager.

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