

Secure Perfect®

Installing Secure Perfect in a Clustered Environment



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You are cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Introduction

This document includes an overview of clustering and detailed instructions. There is also information describing how to contact technical support if you have questions or concerns.

Read these instructions and all ancillary documentation entirely before installing or operating this product. The most current versions of this and related documentation may be found on our website. Refer to [Online publication library](#) on page 32 for instructions on accessing our online publication library.

Note: A qualified service person, complying with all applicable codes, should perform all required hardware installation.


Conventions used in this document

The following conventions are used in this document:


Bold	Menu items and buttons.
<i>Italic</i>	Emphasis of an instruction or point; special terms.
	Titles of books and various documents.
Monospace	Text that displays on the computer screen.
	Programming or coding sequences.
<i>Blue italic</i>	Hyperlinks to cross-references, related topics, and URL addresses.

Safety terms and symbols

These terms may appear in this manual.

 CAUTION	Cautions identify conditions or practices that may result in damage to the equipment or other property.
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Cautions identify conditions or practices that may result in damage to the equipment or other property.

 WARNING	Improper use could cause equipment damage or serious personal injury.
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Warnings identify conditions or practices that could result in equipment damage or serious personal injury.

Overview

This document is for experienced software installers and includes instructions for Secure Perfect configuration in a Microsoft Windows® Cluster environment. This feature is available for only Enterprise-level installations. Clustering improves overall system availability and reduces downtime. If any one Server stops functioning, a process called failover automatically shifts its workload to another Server to provide continuous service. Some forms of clustering employ load balancing, which enables the computer workload to be distributed across a network of linked computers.

Product contents

- [“Adding the computer to an existing domain” on page 5](#)
- [“Installing Secure Perfect” on page 6](#)
- [“Installing a Clustered Global Database Server” on page 8](#)
- [“Installing SPNodeInstall on an additional node” on page 17](#)
- [“Configuring Secure Perfect file share resources” on page 19](#)
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- [“Contacting technical support” on page 32](#)

“Contacting technical support” on page 32Other requirements

To prepare your Server computers for Secure Perfect Clustering, review the following:

- Your Clustered Secure Perfect system WILL NOT install unless minimum requirements have been met. Before you begin installing Secure Perfect, contact one of the following:
 - GE Sales Engineering (561) 998-6100, can provide additional details of these services and a quotation applicable to your system configuration.
 - GE Enterprise Consulting at (561) 998-6211, to discuss Windows Clustering requirements, setup, and installation.
- Install the Cluster software on the appropriate computers. Clustering can be installed on Windows 2000 Advanced Servers or Windows 2003 Standard Edition Servers.
 - The Windows Web site provides an excellent source of information and documentation about clustering.
- Each Server computer must be part of a new or existing domain. If you are creating a new domain, always consult with the network administrator before adding a domain or adding any computers to an existing network. Refer to [“Adding the computer to an existing domain” on page 5](#).
- When installing to a Windows Cluster, your SQL Cluster instance SPSQL must be a Service Pack 3a level. If SPQSL is not up to date, the installation will update the instance to Service Pack level 3a.
- If your domain network is prepared, continue with [“Installing Secure Perfect” on page 6](#).

References

- Refer to documentation received with your hardware.
- Review the Cluster software installation and configuration with your IT Department.

Note: IMPORTANT: We recommend that your IT Department configure your Cluster Failback Policy to **Allow Failback** and set the time interval as **Immediately**. This configuration allows a seamless installation to continue on the primary node. (Later, this configuration can be adjusted to suit your preferred configuration.)

Adding the computer to an existing domain

Since the Server computer will be part of a new or existing domain, you must add the Server computers to the network.

1. Since network configuration varies from company-to-company, see your IT administrator for assistance.

Note: If your Server and client computers participate in a workgroup, add the workgroup name during the installation. We suggest using SECUREPERFECT. Write down the server name and workgroup name as these are required during the client installation.

2. It is important that the Server and Client system use the same network properties. Refer to “Setting the Network Properties” of your *Secure Perfect Installation Manual*, for more information or consult with your network administrator.

To change from the LocalSystem Windows Service Account to an existing domain account:

Note: In Windows services, the SQLServerAgent must use a domain account. The SQLAgent account is the security context under which the Snapshot Agent, Merge Agent, and Distribution Agent are running by default.

1. Navigate to the **Component Services** of your computer and double-click to display the list of services.
2. From the list of Services (Local), select **MSSQL\$SPSQL**, and then right-click to display the shortcut menu.
3. From the shortcut menu, select **Properties**. The **General** tab of the **Properties** window displays.
4. Click **Stop** under **Service status**.
5. Select and display the **Log On** tab.
6. Select **This account**. The field for account name is now enabled.
7. Enter the name of the domain account that will start and stop SQL services (or click **Browse** to navigate the Windows network and select the name of the domain account).
8. Enter the password for the domain account and then enter the password again to confirm.
9. Return to the **General** tab and verify that **Startup type** is set to **Automatic**.
10. Click **Start** under **Service status**.

11. Click **OK** to accept and close the window.
12. From the list of Local Services, select **SQLAgent\$SPSQL**, and then right-click to display the shortcut menu.
13. As listed in your *Secure Perfect Installation Manual*, repeat *Step “3.” on page 5* through *Step “11.” on page 6*.
14. Continue with *“Installing Secure Perfect” on page 6*.

Installing Secure Perfect

To install the Secure Perfect application:

1. Enable the Cluster service on your computer by accessing the **Cluster Configuration** folder.
2. You **MUST** be logged in as the local administrator user. If not, log out and log back in as administrator to the local computer.
3. Insert the Secure Perfect CD into the CD-ROM drive.
4. When Secure Perfect starts, click **Install**. If the disk does not launch, you must manually start the software. Double-click (or run) **Setup.exe**. A series of windows displays as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.
 - .NET Framework
 - DirectX 9.0
 - MDAC
 - Windows 2000 Service Pack
 - Windows Installer

Four components will cause the system to reboot when a new version is installed.

- DirectX 9.0
- MDAC
- Windows 2000 Service Pack
- Windows Installer

Note: IMPORTANT - If your Cluster Failback Policy is configured to **Allow Failback** and the time interval is set as **Immediately**, each reboot will result in an immediate failover and an immediate failback. This configuration allows a seamless installation to continue on the primary node. Later, this configuration can be adjusted to suit your preferred configuration. (If the Failback Policy is NOT configured for immediate failback and your cluster has failed over to a secondary node, you must perform a manual failback.)

Installing non-English operating systems:

During installation of Secure Perfect, the installation process checks your system for minimum required components. If the following Microsoft Windows components are not detected, installation is halted:

- .NET Framework Version 1.1 or later
- DirectX 9.0b End-User Runtime
- MDAC 2.8 or later
- Windows 2000 Server with Service Pack 4 or later
- SQL Server 2000 with Service Pack 3a or later

A popup message displays, informing you that installation will be cancelled until you install the required software, **in the appropriate language to the operating system you are installing**. You cannot install Secure Perfect until this is accomplished.

5. If your computer reboots, log on as administrator and installation continues. Please wait.
6. Secure Perfect installation processes updates on your system. When the latest versions of each component are updated and identified, Secure Perfect installation begins, and the **Welcome** window displays.

Note: A **Cancel** button displays on every Secure Perfect installation window. If you click **Cancel** at any time during the installation, the installation process stops and your system returns to the state prior to beginning the installation of Secure Perfect software.

7. The **Secure Perfect Welcome** window displays. Click **Next**.
8. When the **License Agreement** window displays, select **I accept** and click **Next**.

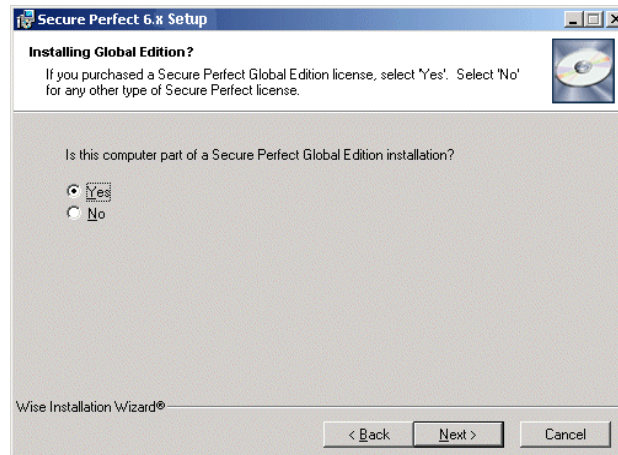
Installing a Clustered Global Database Server

Note: The windows that follow are examples of a Clustered Global installation scenario.

To begin your custom installation at the Global Database Server:

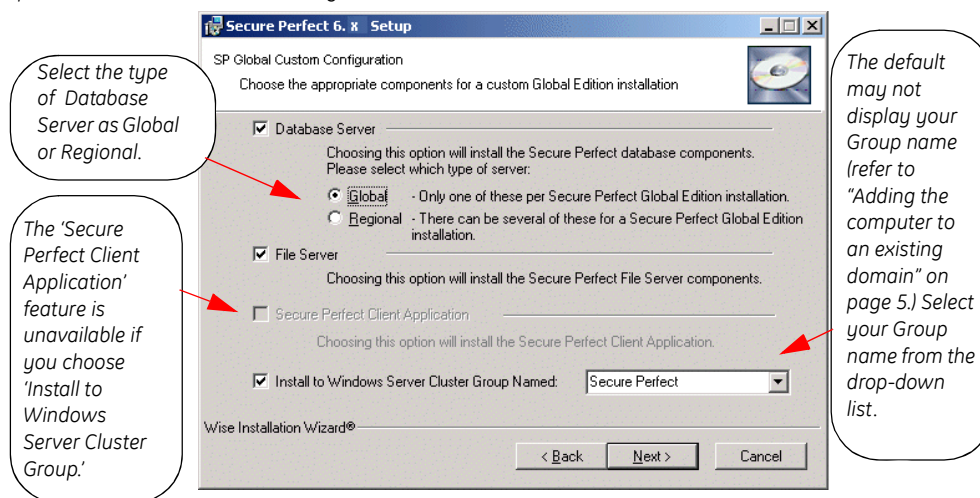
1. Select **Custom** as the **Installation Type** and click **Next**. The **Installing Global Edition?** window displays, as in [Figure 1](#).

Figure 1. Installing Global Edition?



2. Select **Yes** and then click **Next**. The **Custom Configuration** window displays for you to choose which Secure Perfect features to configure on this computer. The **Custom Configuration** window displays similar to [Figure 2](#).

Figure 2. Enterprise Server - Custom Cluster Configuration



3. By default, the **Database Server**, **File Server**, and **Install to Windows Server Cluster Group** are enabled and selected on the components list of this window as displayed in [Figure 2](#). Review the selections and clear those options that you are not installing at this time.

Note: Some components require that a prerequisite component be installed before you begin.

Database Server: Only Microsoft SQL components install. This option is a prerequisite in order to install **File Server**. Additionally, select the type of Database Server as **Global** or **Regional**.

File Server: Only Secure Perfect File Server components install. This Server stores the data files shared by clients on the Secure Perfect network. All file shares install.

Secure Perfect Client Application: This selection is unavailable at the Cluster Server computers, if you choose **Install to Windows Server Cluster Group**. You must install the client application on a separate computer.

Install to Windows Server Cluster Group: When this option is selected, the **Secure Perfect Client Application** option is unavailable. You must enter the name of the Cluster group or select from the drop-down list of available Cluster groups where Secure Perfect can create Secure Perfect Cluster file share resources. This is also the same Cluster group where the **SPSQL** SQL Cluster instance is located, if the Secure Perfect Database Server computer is being installed.

4. Click **Next**.

Cluster configuration options

The configuration options described in the following scenarios are the result of selections made on the **SP Enterprise Custom Configuration** window. Refer to *Figure 2 on page 8*.

Table 1: Custom Configuration Options

Note: Windows that display during installation are similar to the sample configurations presented.

Scenario	Begin on Page:
1.	<i>“Database Server, File Server, and Install to Windows Server Cluster Group” on page 10</i>
2.	<i>“Database Server Configuration and Install to Windows Server Cluster Group” on page 15</i>
3.	<i>“File Server Configuration and Install to Windows Server Cluster Group” on page 16</i>
4.	<i>“Secure Perfect Client Application Installation” on page 17</i>

IMPORTANT: When you select a scenario, be sure to complete all instructions for that scenario.

Scenario 1. Database Server, File Server, and Install to Windows Server Cluster Group

Note: All components are installed on one computer.

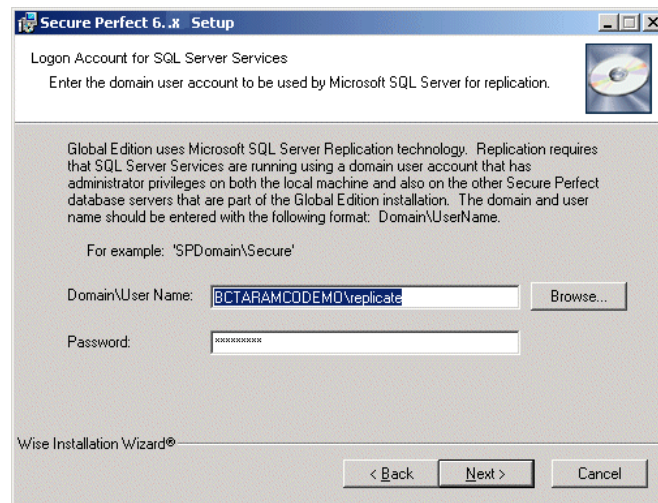
If you accept the default selections on the SP Enterprise Custom Configuration window:

1. Refer to [Figure 2 on page 8](#). Complete the **Cluster Group Name**. The **Cluster Group Name** is the resource group for the cluster drive to which you are installing.

Note: After the install, you must go to **Start/Settings/Control Panel/Administrative Tools/Cluster Administrator** and add the Cluster drive as a dependency to all the file shares that are created in this group. Refer to ["Configuring Secure Perfect file share resources" on page 19](#).

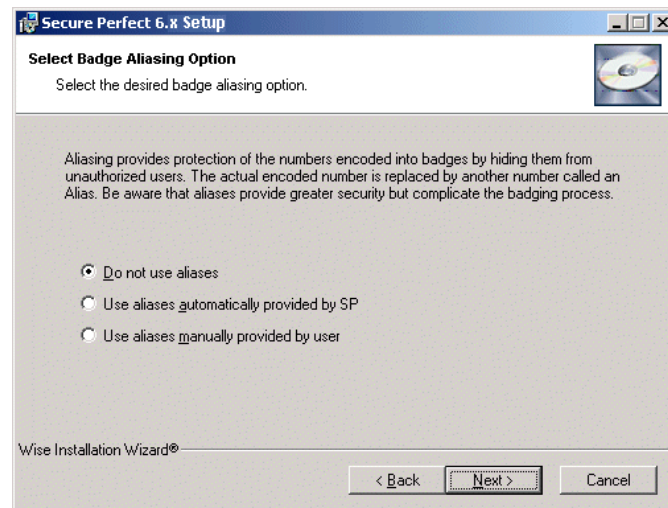
2. Click **Next**. The **Database and File Server Paths** window displays.
3. Enter the **Database Server Name** or select from the drop-down list. This is the combination of the instance of SQL Server running on the cluster and the name of the Cluster. Typically, these are different names.
Note: Make sure that you choose the name of the Cluster and NOT the name of the computer node.
4. You can accept the default **File Server Name** as displayed, enter the Cluster name, or click **Browse** to navigate to the File Server.
5. Click **Next**. A window displays as in [Figure 3 on page 11](#).

Figure 3. Logon Account for SQL Server Services



6. Click **Browse** and navigate to the domain user name. The domain name\user name displays as a combination.
7. Click **Next**. The **Select Badge Aliasing Option** window displays as in [Figure 4](#).

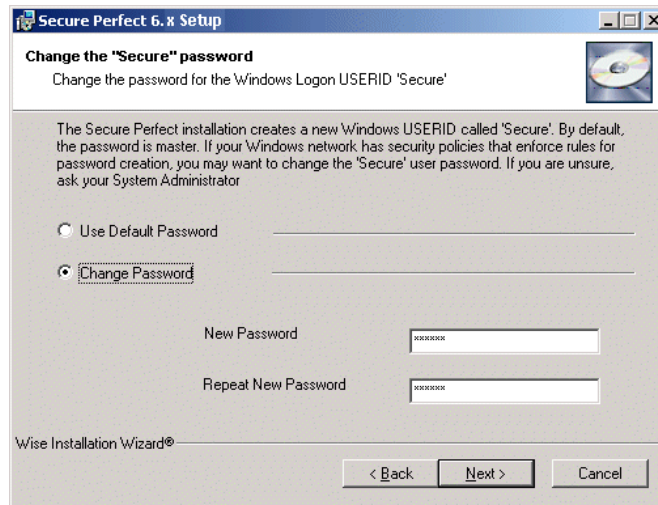
Figure 4. Select Badge Aliasing Option



8. This feature allows you to assign a badge number that represents the encoded badge number. This provides added security in that the encoded number is displayed to only authorized users.
 - **Do not use aliases** indicates no aliasing will be used.
 - **Use aliases automatically provided by SP** assigns the badge number for you.
 - **Use aliases manually provided by user** aliasing allows you to assign the number.

9. Choose one aliasing option, then click **Next**. The **Change the 'secure' Password** window displays as in [Figure 5](#).

Figure 5. Change the 'Secure' Password

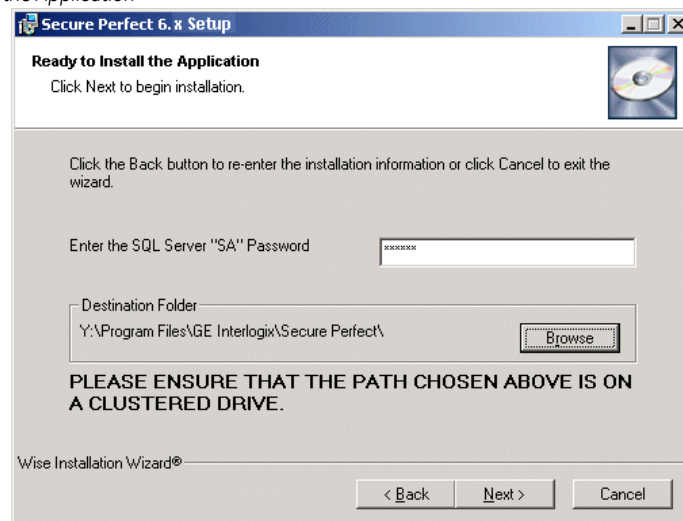


10. The Secure Perfect installation creates a new Windows User ID called `secure`. By default, the password is `master`. If your Windows network has security policies that enforce rules for password creation, you may need to change the `secure` user password. If you are unsure, ask your system administrator. Select one of the following:

- **Use Default Password**
- **Change Password** (If you select this option, enter your new password and then enter a second time.)

11. Click **Next**. The **Ready to Install the Application** window displays as in [Figure 6](#).

Figure 6. Cluster - Ready to Install the Application



12. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL.)
13. The default Destination Folder is displayed. You **MUST** change this to a location on the Cluster drive. Click **Browse** to navigate to the program folder of your choice for placement of Secure Perfect files. A message displays as a reminder, PLEASE ENSURE THAT THE PATH CHOSEN ABOVE IS ON A CLUSTERED DRIVE. (The Destination Folder and path statement does not display when upgrading from a previous version of Secure Perfect.)

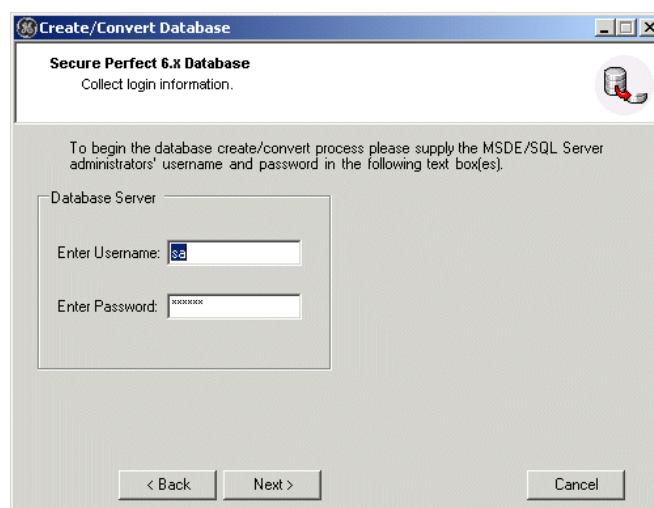
Note: Review your destination folder.
14. Click **Next** to continue. Secure Perfect copies system files and updates the system configuration. This may take a few minutes.
15. When the **Secure Perfect has been successfully installed** window displays, click **Finish**.
16. Continue with the sequence of steps in *"Creating the database" on page 13*.

Creating the database

To create a database for your Secure Perfect system:

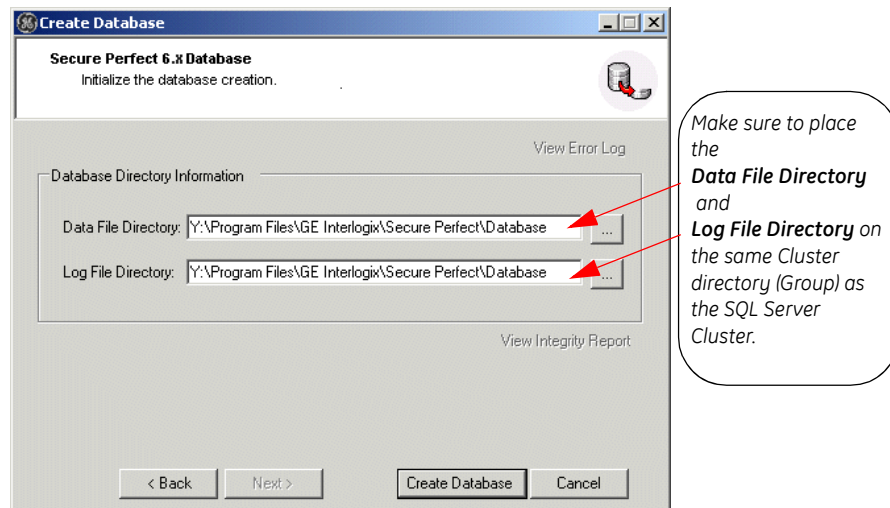
1. The **Create/Convert Database** window displays, as in *Figure 7*.


Figure 7. Create/Convert Database




2. The **Password** field displays your encrypted and previously assigned password. Accept the encrypted password or re-enter.
3. Click **Next**. A window displays as in *Figure 8 on page 14*.

Figure 8. Create Database



4. Each Secure Perfect database consists of data files and transaction logs. You have an option to place those components in different physical locations. You may consider this if your IT Department has certain policies regarding database installation. Consult with your IT Department for assistance.
 - **Data File Directory:** The **Data File Directory** field displays the default directory. Accept the default as displayed or click  and browse to any folder location where data files will be stored.

Note: If you are installing on the Global Database Server, the Distributor installs to the same path as the Cluster Data File Directory.
 - **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default as displayed or click  and browse to the folder location where database log files will be stored.

Note: This refers to the database logs; this does NOT refer to the Secure Perfect logs.
5. Click **Create/Convert Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.



CAUTION

If a database already exists, a warning message will display stating that you are about to overwrite your existing database with an empty default database.

6. Following the database creation, a message displays, **Secure Perfect Database successfully created**. A log file is created when the Create Database program is run. The log file, called `SPCreatedDB.txt` is found in the Logs folder of Secure Perfect.
7. Click **OK**. The dialog box closes. Installation of Secure Perfect is complete.
8. When prompted to reboot, click **Yes** to reboot your system.

9. Proceed to *“Installing SPNodeInstall on an additional node” on page 17*

OR

If you have already installed an additional node, proceed to *“Configuring Secure Perfect file share resources” on page 19.*

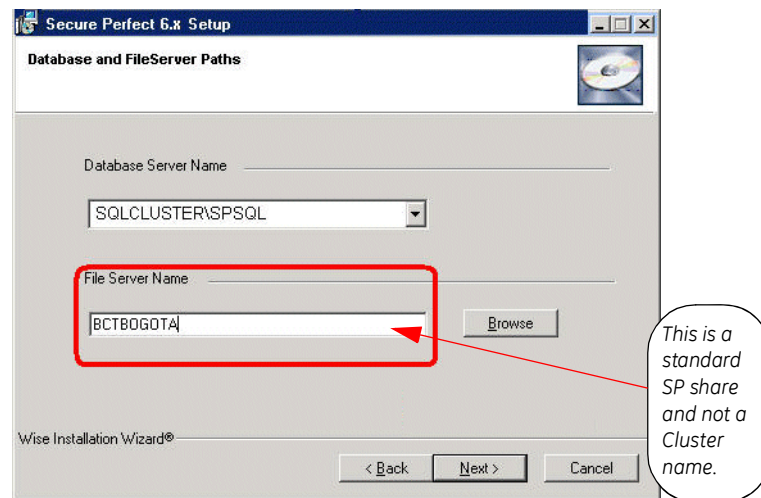
Scenario 2. Database Server Configuration and Install to Windows Server Cluster Group

Note: The Secure Perfect application is installed on a second computer.

If you selected **ONLY Database Server on the SP Enterprise Custom Configuration window:**

1. A **Database and File Server Paths** window displays similar to *Figure 9.*

Figure 9. Cluster Installation - Database



2. Enter the **Database Server Name** or select from the drop-down list. This is the combination of the instance of SQL Server running on the cluster and the name of the Cluster. Typically, these are different names.
3. Click **Browse** to navigate and select a File Server location for your system.
4. Click **Next** to display the **Select Badge Aliasing Option**, as in *Figure 4 on page 11*. See explanation in *Step “8.” on page 11*.
5. Choose one aliasing option, then click **Next**.

6. The **Change the 'secure' Password** window displays as in *Figure 5 on page 12*. See explanation in *Step "10." on page 12*. Select one of the following:
 - **Use Default Password**
 - **Change Password** (If you select this option, enter your new password and then enter a second time.)
7. Click **Next**. The **Ready to Install the Application** window displays, as in *Figure 6 on page 12*. Enter the SQL Server password for the 'sa' user.
8. The default **Destination Folder** is indicated. You must change this to a location on the Cluster drive. Click **Browse** to navigate to the program folder of your choice for placement of Secure Perfect files. A reminder message displays, PLEASE ENSURE THAT THE PATH CHOSEN ABOVE IS ON A CLUSTERED DRIVE. (The Destination Folder and path statement does not display when upgrading from a previous version of Secure Perfect.)

Note: Review your destination folder.
9. Click **Next** to continue. Secure Perfect copies system files and updates the system configuration. This may take a few minutes.
10. When the **Secure Perfect has been successfully installed** window displays, click **Finish**.
11. The system now creates a database. Refer to *"Creating the database" on page 13* and follow the detailed instructions.

Scenario 3. File Server Configuration and Install to Windows Server Cluster Group

Note: Prerequisite: Database Server installation already complete.

If you selected ONLY File Server on the SP Enterprise Custom Configuration window:

1. The **Change the 'secure' Password** window displays as in *Figure 5 on page 12*. See explanation in *Step "10." on page 12*. Select one of the following:
 - **Use Default Password**
 - **Change Password** (If you select this option, enter your new password and then enter a second time.)
2. Click **Next**. The **Ready to Install the Application** window displays. The default **Destination Folder** is indicated as in *Figure 6 on page 12*. You MUST change this to a location on the Cluster drive. Click **Browse** to navigate to the program folder of your choice for placement of Secure Perfect files. A reminder message displays, PLEASE ENSURE THAT THE PATH CHOSEN ABOVE IS ON A CLUSTERED DRIVE. (The Destination Folder and path statement does not display when upgrading from a previous version of Secure Perfect.)

Note: Review your destination folder.
3. Click **Next** to continue. Secure Perfect copies system files and updates the system configuration. This may take a few minutes.

4. When the **Secure Perfect has been successfully installed** window displays, click **Finish**.
5. Proceed to *“Configuring Secure Perfect file share resources” on page 19*.

Scenario 4. Secure Perfect Client Application Installation

Note: Prerequisite: Database Server, File Server, and Install to Windows Server Cluster Group installations already complete.

To install **ONLY** the Secure Perfect client application on a different and separate computer:

1. Refer to your *Secure Perfect Installation Manual*, Installing Secure Perfect on Additional Clients.
2. The following exceptions apply to a Clustering environment:
 - You must be part of an existing domain.
 - You must select installation type as **Custom**. Follow the sequence of instructions for installing a Custom client installation, in your *Secure Perfect Installation Manual*.

Note: The first Secure Perfect client computer installation is the First Time License client computer on your Secure Perfect system.

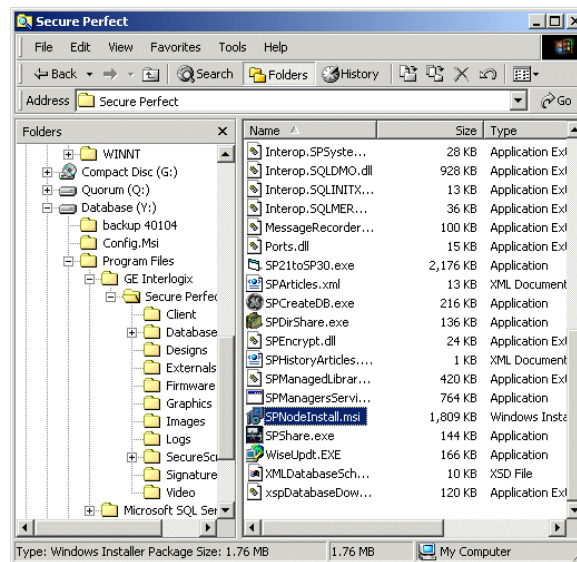
Installing *SPNodeInstall* on an additional node

For all other nodes in the Cluster, an ‘**SPNodeInstall**’ installation is required to complete the Secure Perfect installation on the Cluster.

To install to a second node:

1. Log on as administrator user.
2. Perform a failover at this time. The Cluster group that contains the SQL Server and file shares must be failed over to the secondary node before the ‘**SPNodeInstall**’ installation.
3. Locate and double-click the `SPNodeInstall.msi` file located in the cluster path name that was used in the initial Secure Perfect Cluster installation, such as `Y:\Secure Perfect\` as displayed in *Figure 10 on page 18*.

Figure 10. Example: SPNodeInstall.msi File Location



4. When the **Welcome** window displays, click **Next**. The **Change the 'secure' Password** window displays as in [Figure 5 on page 12](#).
5. The Secure Perfect installation creates a new Windows User ID called `secure`. By default, the password is `master`. If your Windows network has security policies that enforce rules for password creation, you may need to change the `secure` user password. If you are unsure, ask your IT administrator. Select one of the following:
 - **Use Default Password**
 - **Change Password** (If you select this option, enter your new password and then enter a second time.)
6. Click **Next**. The **Ready to Install the Application** window displays as in [Figure 6 on page 12](#).
7. Click **Next** to continue. Secure Perfect copies system files and updates the system configuration. This may take a few minutes.
8. When the **Secure Perfect has been successfully installed** window displays, click **Finish**.
9. Proceed to [“Configuring Secure Perfect file share resources” on page 19](#).

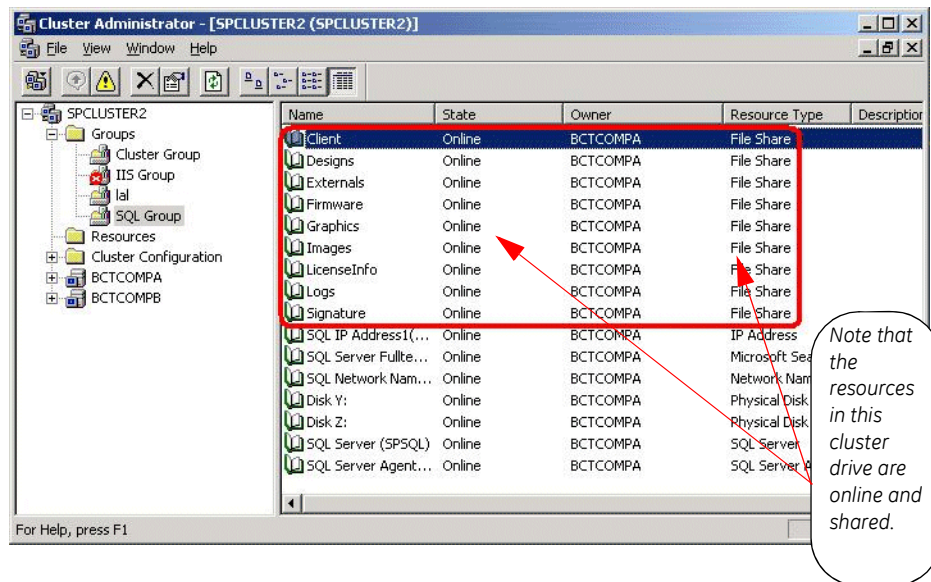
Configuring Secure Perfect file share resources

When the installation is complete, add a dependency to file shares of the Cluster drive and then bring these resources online. Refer to [Figure 11](#).

Note: The list of file share resources will not display the same in all instances of installation due to variations in configurations.

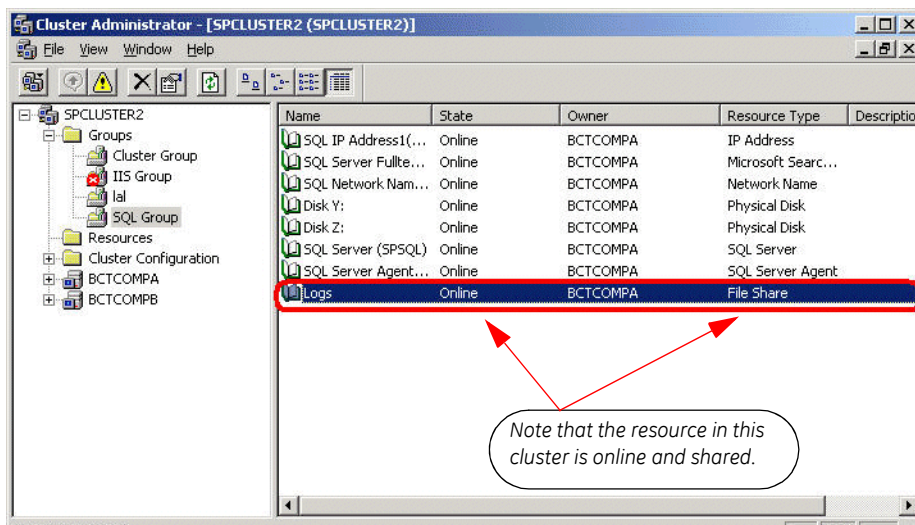
If you are installing **Database Server** and **File Server** at the same group, your installation will look similar to [Figure 11](#).

Figure 11. Cluster File Share Resources



If you are installing **ONLY Database Server**, at the group, your installation will look similar to [Figure 12](#).

Figure 12. Cluster File Share Resources: Database Server



To add a dependency to file shares of the clustered drive:

1. Click **Start, Programs, Administrative Tools**, and then **Cluster Administrator**.
2. Navigate to the **Cluster Group** that you entered during the install, to display the list of file share resources. (In our example in *Figure 2 on page 8*, the Cluster Group was **Secure Perfect**.)
3. Select, then right-click the file share name and select **Properties** from the shortcut menu.
4. When the **General** tab of the **Disk Properties** window displays, all possible nodes must be listed as **Possible owners**.

Note: IMPORTANT - You must take the selected resources offline in order to add a dependency.

5. Select the **Dependencies** tab of the resource **Properties** window, and specify which resources the Cluster services must bring online before this resource can be brought online.

Note: IMPORTANT - You must now bring the selected resource online in order for Secure Perfect to perform.

6. When all file share properties are configured, exit the **Cluster Administrator**.
7. If you have completed all installations, proceed to *“What’s next?” on page 31*.

Upgrading a clustered environment

Review your installation configuration before you begin your upgrade. Since the cluster environment installation option allows you to install the Database Server and File Server components separately, the upgrade will need to proceed in the same order in which they were installed.

Note: The steps below assume each application is on a separate computer. If you used only one, then the Database Server and File Server computer as referenced below will be the same computer.

After you have upgraded the Server computer, you will need to upgrade your client computers. This will be discussed following the Server upgrade, in *“Upgrading client computers” on page 29*. Review this list and FOLLOW THE STEPS IN THE ORDER PRESENTED BELOW. Each one of these steps is explained in more detail in the sections that follow. To upgrade a cluster environment installation:

1. *Note all Secure Perfect operator passwords (page 22)*

2. *Stop Secure Perfect services on Secure Perfect Server (page 22)*

On the File Server:

3. *Back Up Secure Perfect folder on the file Server computer (page 23)*

On the Database Server:

4. *Back up Secure Perfect databases using Microsoft SQL Server Enterprise Manager (page 23)*

5. *OPTIONAL: run Database Maintenance Plan Wizard (page 24)*

6. *Back up clean Secure Perfect databases (page 25)*

Uninstall Secondary Nodes:

7. *Uninstall secondary nodes (page 25)*

On All Computers:

8. *Install Secure Perfect 6.x application and license your system (page 26)*

On the File Server:

9. *Restore designs, graphics, images, and signatures to Secure Perfect File Server Computer (page 26)*

On the Secure Perfect Application:

10. *Activate Enable Unique & Required Employee Number (page 27)*

On Completion of the Upgrade:

11. *Upgrade additional client computers (page 28)*

12. *Place micros online and flash micros with application code (page 28)*

Other requirements

Before you upgrade Secure Perfect, make sure that:

- All clients are logged off and client services are stopped.
- All Secure Perfect applications, such as DiagView, are closed.

1. Note all Secure Perfect operator passwords

Secure Perfect operator login passwords are case sensitive. Before you upgrade, note the **exact case** used in all of your Secure Perfect operator login passwords.

Note: UPGRADES - Versions of Secure Perfect 4.0 and earlier did not require case-sensitive default login passwords. When upgrading from a version of Secure Perfect 4.0 or earlier, you may experience a problem logging in. If you have never changed it, your Secure Perfect default password may be set to initial caps, as in 'Master' and not 'master.'

2. Stop Secure Perfect services on Secure Perfect Server

The Secure Perfect services run regardless of whether anyone is logged into Windows or SP as long as the services are set for automatic startup. In other words, if the computer is turned on, then the services are running.

To continue this upgrade, the services must be stopped on all SP computers.



Shutting down the Secure Perfect services shuts down any clients currently connected to the Server without saving any work in progress!

To stop services on the existing SP computer and all clients:

1. Click **Start, Settings, Control Panel, Administrative Tools**, then **Services**. The **Services** window displays.
2. Locate the three **Secure Perfect** services:

Secure Perfect Diagnostics
Secure Perfect Manager
Secure Perfect System Manager

You will need to scroll down.

- If the **Status** columns are blank, then the services are not running and do not need to be stopped. Proceed to [Back Up Secure Perfect folder on the file Server computer](#) on page 23.
- If the **Status** columns display **Started**, then the services are running and need to be stopped.

3. Select **Secure Perfect Diagnostics** service and click **Stop**. Stopping the **Diagnostic** service will stop the **Manager** and **System Manager** services as well, if **Yes** is clicked on the **Stop Other Services Window**. The **Status** columns should now be blank.
4. If the Secure Perfect API service is running, stop that service now.
5. Exit the **Services** application.

3. Back Up Secure Perfect folder on the file Server computer

Everything in your existing SP Secure Perfect folder except the Database folder should be backed up. This includes the Designs, Graphics, Images, and Signature folders. Use any backup program you want. **You should back up to an external media device such as a tape, zipdisk, CD, or a network folder. Verify that your backups work correctly.** All designs, graphics, images, and signatures will need to be restored after SP 6.x is installed.

4. Back up Secure Perfect databases using Microsoft SQL Server Enterprise Manager

Back up the SecurePerfect, SecurePerfectArchive, and SecurePerfectHistory databases on your SP Database Server computer. These databases will be restored onto the new SP 6.x Database Server computer.

Note: Custom stored procedures or triggers added to the Secure Perfect databases need to be removed. You can re-create custom procedures or triggers after the conversion is complete.

If you are:

- Not familiar with Microsoft SQL Enterprise Manager, use the instructions below.
- Familiar with Microsoft SQL Enterprise Manager, back up the three databases and then continue with *'OPTIONAL: run Database Maintenance Plan Wizard' on page 24.*

To back up your Secure Perfect databases using Microsoft SQL Enterprise Manager:

1. Click **Start, Programs, Microsoft SQL Server**, then **Enterprise Manager**. The **SQL Server Enterprise Manager** opens to display the **Microsoft SQL Servers**.
2. Navigate to and open the **Databases** folder. This procedure may take several minutes.
3. Right-click SecurePerfect. The **SQL Server Enterprise Manager - Secure Perfect Shortcut** menu displays.
4. Click **All Tasks**, then **Backup Database**. The **SQL Server Backup** dialog box displays.
5. In the **Name** field, you can keep the default or choose a different name.
6. Select the **Database - complete** option button.

7. Under the **Destination**, you can choose either a file name or a device, such as a tape. (The first time you perform this function, you will be required to create the device by clicking **Add**.) We recommend that you select the device or a file on a network.
8. You may select either **Overwrite existing media** or **Append to media**. The latter option is useful when using a tape that can hold a large quantity of data.
9. You can schedule the backup by selecting the **Schedule** check box. The button with the three dots is now enabled, which allows you to edit the schedule. We recommend that you refer to the SQL Online Help for more information.
10. Click **OK** to start the backup. A **Backup Progress** dialog box will display.
11. When the **Backup operation has been completed successfully** screen displays, click **OK**.
12. Repeat steps 3 through 11 for the other two databases: SecurePerfectHistory and SecurePerfectArchive.
13. Exit the SQL Server Enterprise Manager.

5. OPTIONAL: run *Database Maintenance Plan Wizard*

On your existing SP Database Server computer, if the integrity of your database becomes questionable, you can run the **Database Maintenance Plan Wizard**, which will attempt to correct the suspect data and shrink the size of your database.

To run the Database Maintenance Plan Wizard:

1. Click **Start, Programs, Microsoft SQL Server**, then **Enterprise Manager**.
2. Click **Microsoft SQL Servers**.
3. Click **SQL Server Group**.
4. Click the name of your server.
5. Click **Databases**.
6. Navigate to each Secure Perfect database folder.
7. Select a database, then right-click.
8. Select **All Tasks** on the shortcut menu, then **Maintenance Plan**. The **Database Maintenance Plan Wizard** displays.
9. Click **Next**.
10. Select specific databases from the list on the **Select databases for which to create the maintenance plan**. Click **Next**.

11. Select **Update Data Optimization Information** options. Click **Next**.
12. Select **Check database integrity options** choices. Click **Next**.
13. Select the where and when options on the **Specify the Database Backup Plan** screen. Click **Next**.
14. Select the where and when options on the **Specify Backup Disk Directory**. Click **Next**.
15. Select the where and when options on the **Specify the Transaction Log Backup Plan** screen. Click **Next**.
16. Select the where and when options on the **Reports to Generate** screen. Click **Next**.
17. Specify how you want to store the maintenance plan records on the **Maintenance Plan History** screen. Click **Next**.
18. When **Completing the Database Maintenance Plan Wizard** screen displays, review your selections by scrolling through the list. Click **Finish** if you are satisfied with the selections you have made.
19. Exit the application.

6. Back up clean Secure Perfect databases

If you elected to run the database maintenance plan wizard, a backup of the cleaned database files would be appropriate at this time. Refer to instructions in step *'Back up Secure Perfect databases using Microsoft SQL Server Enterprise Manager'* on page 23.

7. Uninstall secondary nodes

Before upgrading the primary node, you will need to uninstall the secondary nodes.

To uninstall the secondary nodes:

1. Make sure all clients are logged off.
2. Close all Secure Perfect applications such as DiagView.
3. Verify that Secure Perfect services are stopped. Refer to *"Stop services on existing Secure Perfect client computer"* on page 29.
4. Perform a failover to the Cluster secondary node. The Cluster group that contains the SQL Server and file shares must be failed over to the secondary node.
5. Click **Start, Settings, Control Panel**, then **Add/Remove Programs**.
6. From the list of currently installed programs that display, select **Secure Perfect Windows Server SQL Cluster Node Install**.

7. Click **Remove**.
8. Perform a failover to primary node.
9. You are now ready to convert/upgrade your Secure Perfect database.

8. Install Secure Perfect 6.x application and license your system

To install the Secure Perfect 6.x application:

1. You **MUST** be logged in as the local administrator user. If not, log out and log back in as a user with these permissions.
2. Follow the instructions as listed in *“Installing a Clustered Global Database Server” on page 8*. Review the Pre-Installation Checklist before you begin.

Note: The steps below assume the Database Server and File Server computer as referenced below will be the same computer.

Install in this order:

- Primary Node (Database and File Server)
- Secondary Node (SP Node Install)
- Secure Perfect Application as a First-Time License Client Computer on a different and separate computer than the Cluster Nodes

Note: The Secure Perfect application can be successfully installed on a Windows 2000, 2003, or Advanced Server computer as well.

3. Some items to note during installations:
 - If SQL Server 2000 Service Pack 3a is not installed, the service pack installation automatically installs with Secure Perfect.
 - The previous version of Secure Perfect is automatically uninstalled. (If you experience any problems, refer to “Verifying and Cleaning Up after an Uninstall” of your *Secure Perfect Installation Manual*.)
 - The ‘Create SP Database’ utility automatically launches.
 - The license application automatically launches on the Secure Perfect client computer. Follow the steps as detailed in your *Secure Perfect Installation Manual*.

9. Restore designs, graphics, images, and signatures to Secure Perfect File Server Computer

This step restores the SP designs, graphics, images, and signatures to the new SP File Server computer.

To restore designs, graphics, images, and signatures:

1. Copy the designs from the SP backup source into the Designs folder on the SP 6.x File Server computer.
2. Copy the graphics from the SP backup source into the Graphics folder on the SP 6.x File Server computer.

3. Copy the images from the SP backup source into the Images folder on the SP 6.x File Server computer.
4. Copy the signatures from the SP backup source into the Signature folder on the SP 6.x File Server computer.

10. Activate *Enable Unique & Required Employee Number*

During the process of converting a database, the system checks for possible blank or duplicate employee numbers in the database.

Log on and open the Parameter Form to display the Settings tab:

Note: UPGRADES - Versions of Secure Perfect 4.0 and earlier did not require case-sensitive default login passwords. When upgrading from a version of Secure Perfect 4.0 or earlier, you may experience a problem logging in. If you have never changed it, your Secure Perfect default password may be set to initial caps, as in 'Master' and not 'master.'

1. If the **Enable unique & required Employee Number** check box is selected and unavailable, all converted Person records have unique employee numbers. All future Person records must have a unique employee number before the record can be saved.
2. If the **Enable unique & required Employee Number** check box is NOT selected, this is an indication that duplicate or blank employee number records exist in the database.
3. At this time, you have the option to choose one of two preferences:
 - Do nothing and continue to allow blank or duplicate employee numbers in Person records (the **Enable unique & required Employee Number** check box remains clear).

OR

 - Set a control that requires all Person records to have an entry in the **Employee number** field.
4. If you choose to require all Person records to have a unique employee number, select **Enable unique & required Employee Number** and click **Save**. A message displays informing you: **The Employee number field on the Person Form will be required and unique. Once this is enabled, it cannot be changed back. Do you want to continue with this change?**
5. Click **Yes**. A second message displays: **Could not enable unique and required Employee number. Duplicates already exist or field is empty in the database. Refer to the Diagnostic Logfile.**
6. Navigate to the logfile. The Message in the logfile informs you that Secure Perfect generated a text file and placed the file in the Logs folder of the Secure Perfect Server computer.
7. Navigate to the Secure Perfect\Logs\DuplicateEmployeeNumbers.txt file, consult the list of duplicate or blank employee numbers, locate those Person records, and assign a unique employee number to each.
8. When all records on the .TXT file list have a unique employee number, return to the **Parameter Form**, select the **Enable unique & required Employee Number** check box, and **Save**.

9. If you cannot save and again receive additional messages, you must repeat the process, steps 5 through 8.
10. The selection to require all Person records to have a unique employee number cannot be reversed and all newly added Person records must have a unique employee number.

11. Upgrade additional client computers

Now that you have upgraded your Server computers and the First Time License Secure Perfect Client computer, you will need to upgrade all additional networked client computers (those that are running as clients to the Database Server computer.) Repeat the sequence of steps just as you performed in *“Install Secure Perfect 6.x application and license your system”* on page 26.

Once you have finished upgrading any additional client computers, you need to identify and flash your micros with application code.

12. Place micros online and flash micros with application code

SP 6.x software will communicate with micros flashed with 6.x firmware. All offline badge and alarm transactions will be uploaded to the Server after the conversion process and stored in the appropriate history table. Allow all the offline transactions to be processed **before** flashing micros to new firmware to minimize data loss. The duration of time that the upload will take is dependent on the number of transactions stored and the length of time that the Server was not communicating with the micros. This might be a few minutes or several hours.

Follow the instructions listed in the document, *Installing FlashTool and Flashing Micros with Secure Perfect*, available on your Secure Perfect Documentation CD in PDF format.

Upgrading client computers

If you have networked computers running as Secure Perfect 6.x clients, you will need to upgrade the client computers now. Secure Perfect supports client computers running Windows 2000 Professional, Windows XP Professional, Windows 2000 Server or Windows 2003 Server. You may want to review your Secure Perfect architecture for the options available. Refer to your *Secure Perfect Installation Guide*, “What’s New in Secure Perfect?” for a description of the new architecture.



Cautions identify conditions or practices that may result in damage to the equipment or other property.

The process of upgrading client computers observes a specific sequence of steps. Each step is detailed in the sections that follow.

1. [Stop services on existing Secure Perfect client computer \(page 29\)](#)
2. [Install Secure Perfect 6.x software \(page 30\)](#)

1. Stop services on existing Secure Perfect client computer

Before proceeding, the Secure Perfect services must be stopped.

To stop services on the SP client computer:

1. Click **Start, Settings, Control Panel, Administrative Tools**, then **Services**. The **Services** window displays.
2. Locate the three Secure Perfect services:

Secure Perfect Diagnostics
Secure Perfect Manager
Secure Perfect System Manager

You will need to scroll down.

- If the **Status** columns are blank, then the services are not running and do not need to be stopped. Proceed to [Install Secure Perfect 6.x software](#) on page 30.
 - If the **Status** columns display **Started**, then the services are running and need to be stopped.
3. Select **Secure Perfect Diagnostics** service and click **Stop**. Stopping the **Diagnostic** service will stop the **Manager** and **System Manager** as well if **Yes** is clicked on the **Stop Other Services Window**. The **Status** columns should now be blank.
 4. If the Secure Perfect API service is running, stop that service now.
 5. Exit the **Services** application.

2. Install Secure Perfect 6.x software

To install Secure Perfect 6.x software:

1. You **MUST** be logged in as the local administrator user. If not, log out and log back in as a user with these permissions.
2. Insert the Secure Perfect CD into the CD-ROM drive.
3. If using the typical installation procedure, review your Secure Perfect Installation Manual, *Preparing the Windows 2000 or Windows XP Professional Computer* and *Installing Secure Perfect on Additional Clients*. Then follow the instructions in the order as listed.

If taking advantage of the SP 6.x features, review your selection of options for installing the Secure Perfect components.

4. Open and log on to the Secure Perfect 6.x client program.

Note: UPGRADES - Versions of Secure Perfect 4.0 and earlier did not require case-sensitive default login passwords. When upgrading from a version of Secure Perfect 4.0 or earlier, you may experience a problem logging in. If you have never changed it, your Secure Perfect default password may be set to initial caps, as in 'Master' and not 'master.'

Configuration notes - ensuring success

Here are a few pointers for a most efficient transition to Secure Perfect 6.x:

- ☐ When your Secure Perfect 6.x system is fully converted and upgraded, log on to the Secure Perfect application as one of your previously defined operators.

Note: UPGRADES - Versions of Secure Perfect 4.0 and earlier did not require case-sensitive default login passwords. When upgrading from a version of Secure Perfect 4.0 or earlier, you may experience a problem logging in. If you have never changed it, your Secure Perfect default password may be set to initial caps, as in 'Master' and not 'master.'

- ☐ If you need to change the host for each micro, you will need to change this assignment by taking the micros offline and selecting **Micro** from the **Device** menu, then completing the change on the **Micro Form, Micro Definition** tab. Select a **Host Computer** from the drop-down list.
- ☐ If you are changing a Micro/5-PX to a Micro/5-PXN, follow these steps:
 1. Select **Devices**, then **Micro**. The **Micro Form** opens with the **Micro Definition** tab displayed.
 2. Click **Search** for a list of previously defined micros.
 3. From the list of records, select the micro that you are replacing with a Micro/5-PXN.
 4. Select the **Micro Type** as **Micro/5PXN**.
 5. Select **Connection type** from the drop-down list as either **Network** or **Network + Dial-up**.
 6. Change the **PC Name**, if applicable.

7. On the **Port Settings** tab, enter the **IP Address** of your network micro.
 8. **Save** the micro record.
 9. Repeat steps 2 through 8 for all micros that will be replaced by a Micro/5-PXN CPU.
- ☐ Downstream micros do not require reconfiguration since they will automatically inherit the connection type and port settings from the head-of-line micro.
 - ☐ If you need to reconfigure the layout of your system where you are breaking a line of micros and creating multiple head-of-line Micro/5-PXN micros, you must do the following:
 1. Change the **Micro Type** to **Micro/5PXN** and back to **Micro/5PX** so the Head of Line option becomes enabled.
 2. In the **Head of Line**, select **Yes**, then **Micro Type** as **Micro/5PXN**.
 3. Select **Connection type** from the drop-down list as either **Network** or **Network + Dial-up**.
- Save** the micro record, then repeat steps 1 through 3 for each micro that requires a change in configuration.

What's next?

1. Remove the Secure Perfect installation CD from your CD-ROM drive. You have completed the Cluster setup.
2. Proceed to set up or upgrade (if applicable) the First Time License client computer on your Secure Perfect system, that will be running the Secure Perfect application.
3. You must install a first-time client application before licensing can occur.
4. If you have not licensed your system, do so now. Refer to your *Secure Perfect Installation Guide* for detailed instructions.

Contacting technical support

For assistance installing, operating, maintaining, and troubleshooting this product, refer to this document and any other documentation provided. If you still have questions, you may contact pre-sales and technical support.

For pre-sales and technical support assistance, we provide customers with several options (see *Table 2*). Our support phone number is available Monday through Friday, 8 a.m. to 7 p.m. Eastern Time. Protection plans are available for extended coverage.

Table 2. Sales and support contact information

	Pre-Sales	Technical support
Phone:	1 800 428 2733	1 888 GE SECURITY (437 3287)
Fax	561 998 6160	561 998 6244
E-mail		rs-bctsupport@ge.com

Note: Be ready at the equipment before calling for technical support.

Online publication library

Another great resource for assistance with your GE Security products is our online publication library, available to all of our customers on our website. To access our publication library, go to our website at the following location:

<http://www.gesecurity.com>

In the **Tools** area at the top, click the *Publication Library* link then select the category. After you register and log on, you may search through our online library for the documentation you need.¹

1. Many GE Security documents are provided as PDFs (portable document format). To read these documents, you will need Adobe Acrobat Reader, which can be downloaded free from Adobe's website at www.adobe.com.