GE
Security

Facility Commander Wnx 7.5 Enterprise Edition
Installation Manual

Regulatory

Contents

Preface

Welcome to Facility Commander Wnx. This manual provides information for system administrators to set up, install, and configure a Facility Commander Wnx Enterprise system.

Throughout this manual, reference to Facility Commander Wnx is represented as "FCWnx" in text content to avoid repetition.

Conventions used in this manual

The following conventions are used in this document:

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

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.

	WARNING:	*Warnings* identify conditions or practices that could result in equipment damage or serious personal injury.

Related documentation

For more information, refer to the following:

- *Facility Commander Wnx Help System*: Provides reference information, such as window and field descriptions, along with instructions for system administrator duties, such as configuring controllers.
- *Facility Commander Wnx 7.5 Upgrade Manual:* Provides instructions for upgrading your Secure Perfect or Diamond II system to Facility Commander Wnx 7.5.
- *M5PXNplus and M2000PXNplus Upgrade Instructions:* Provides instructions for upgrading to the PXNplus CPU board.
- *M3000 Installation Manual*: A guide to mounting and installing the M3000 panels and associated boards
- *Micro/5 Installation Guide*: A guide to mounting and installing the Micro/5 panels and associated boards.
- *Micro/PX-2000, PXN-2000, and M2000PXNplus Installation Manual:* This guide provides mounting and installation instructions for the PX-2000 and PXN-2000 microcontrollers.
- *DirecDoor Quick Guide:* Provides brief instructions on mounting and configuring the DirecDoor controller.
- *Diamond II User Manual:* This document provides instructions for the installation, configuration, and operation of the Diamond II software.
- *ACU Networked Intelligent Controllers Hardware Installation Manual*: Provides instructions for installation and wiring for ACU controllers and associated hardware.

These documents and others are included on the Documentation disc shipped with your Facility Commander Wnx system, in PDF format. You must have Adobe Acrobat Reader installed on your computer to view PDF documents. For your convenience, a copy of the Adobe Acrobat Reader software is included on the disc.

Training sources

You may want to take advantage of the XtremeLearning library of convenient, comprehensive, and interactive Web-based training courses available through your GE Security business sales representatives.

Chapter 1   Introduction to Facility Commander Wnx

This chapter provides a list of prerequisites for a successful Facility Commander Wnx system, as well as step-by-step instructions for installation. Follow instructions in the order presented.

In this chapter:

Recommended minimum requirements

Facility Commander Wnx is designed to operate on a system that meets these minimum requirements for hardware and third party software.

Hardware

The minimum hardware requirements for Server and client computers are listed below.

Server

The following are minimum hardware requirements for server computers:

- P4 2 GHz
- 2 GB RAM
- CD/DVD drive
- 10/100 Mb network card
- 1024 by 768 resolution, 16-bit color display
- 10 GB available hard drive space

  Hard drive space will vary depending on your system environment. If you elect to partition your hard drive, verify that sufficient space remains in your system drive for your program files to load properly.

The following items are recommended:

- Approved modems if using dial-up controllers
- Ability for remote Internet access support

Client

The following are minimum hardware requirements for client computers:

- P4 2 GHz
- 2 GB RAM
- CD/DVD drive
- 10/100 Mb network card
- 1024 by 768 resolution, 16-bit color display
- 1 GB available hard drive space

  Hard drive space will vary depending on your system environment. If you elect to partition your hard drive, verify that sufficient space remains in your system drive for your program files to load properly.

- If using Imaging, an image capture device, such as a USB or USB2.0 camera

  USB cameras are available from GE Security or for a list of approved cameras, printers, and signature pads, refer to ImageWare's web site: http://www.iwsinc.com.

Note: If using the Digital Video Surveillance option, increasing the processor speed and memory may be required to increase performance in your specific system.

Software

Server

- Microsoft Windows Server (one of the following):
  - Microsoft Windows 2003(SP2 or later) or 2003 R2
  - Microsoft Windows 2008
- Microsoft SQL Server (one of the following):
  If using...
  - MS Windows 2003, install Microsoft SQL Server 2005 Standard or Enterprise Edition with Service Pack 2
  - MS Windows 2008, install Microsoft SQL Server 2008 Standard or Enterprise Edition
- Internet Explorer (6 SP1 or later)
- .NET Framework 3.5 SP1

  > **Note:** If .NET Framework 3.5 is installed on your system, it must be uninstalled before you upgrade to .NET Framework 3.5 SP1.

- MDAC 2.8 or later
- Windows Installer 4.5
- Recommended: Ability for remote Internet access support

Client

- Microsoft Windows (one of the following):
  - Microsoft Windows XP with Service Pack 3
  - Microsoft Windows Vista (Ultimate, Business, or Enterprise) with Service Pack 1
- Internet Explorer (6 SP1 or later)
- Recommended: Ability for remote Internet access support

Integrated video management

Due to the demanding nature of streaming video over IP, managing multiple video streams from the newly introduced support for SymSuite and VisioWave devices requires increased CPU processing power, memory, and network bandwidth. System-wide video performance is equally affected by the resolution, frame rate, and quality settings of individual video streams and should be adjusted accordingly as supported by the SymSuite and VisioWave devices.

FCWnx servers and/or client workstations used for hosting video devices or viewing multiple video streams should meet the following minimum requirements

- CPU: Dual processor/Dual core or Single processor/Quad core at 2.XX GHz or higher
- RAM: 2 GB or higher
- NIC: 1 Gb
- Video: Graphics card hardware support for DirectX 9 with Pixel Shader 3

Operating systems and configuration summary

The Facility Commander Wnx software supports the operating systems listed in *Table 1* in the configurations given. Also, review *Licensing Facility Commander* on page 92.

Table 1. Operating systems and configuration summary

Server OS	Server DB	Client OS
Win2003 (SP2 or later) or Win 2003R2 Server	SQL2005 Server Standard or Enterprise SP2	WinXP Pro SP3/WinVista SP1
Win 2008 Server	SQL2008 Server Standard or Enterprise	WinXP Pro SP3/WinVista SP1

Before you begin

Note: You will not be able to successfully complete your Facility Commander Wnx installation without access to the GE Security business Web site. If you do not have Web access, call GE Security Customer Support at 1 888 GE SECURITY (437-3287) for assistance.

1. You will need a valid GE Security Customer Support Web site login in order to enable the Facility Commander Wnx licensing program. The steps for obtaining a login are detailed in *Chapter 4, License and configure security settings for your FCWnx system* on page 91, in the section entitled *Generating a registration key* on page 92.

2. If you received a Facility Commander Wnx system from GE, your system was licensed according to your purchased items such as number of clients, number of readers, and number of Imaging clients.

    At this time, you are ready to go to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125.

Installation and setup outlines

Before you proceed, make sure that your peripheral system hardware (such as controllers, readers, and network lines) is installed and running.

Unless otherwise noted, details for each step can be found in the chapters that follow.

Once you have completed the installation, refer to the document, *Facility Commander Wnx User Manual*, installed in the \UserManuals folder of the FCWnx installation folder and found on the Documentation disc shipped with your Facility Commander Wnx system for steps on setting up the application.

Prepare and install FCWnx Enterprise server computer

Table 2.   Steps to prepare and install a Facility Commander Wnx Enterprise server computer

Task		Reference
Upgrades: If upgrading from: • A previous version of Facility Commander Wnx software, refer to the *FCWnx 7.5 Upgrade Manual*. • Secure Perfect or Diamond II, refer to the *FCWnx 7.5 Upgrade Manual*.		
A	Check minimum hardware and software requirements.	*page 2*
B	Install network card.	*page 8*
C	Determine server type.	*page 8*
D	If this server is part of an existing domain, you need to add this server to the primary domain controller of that domain.	*page 9*
E	Install/prepare the operating system.	*page 9*
F	Install Microsoft SQL Server 2005 or 2008.	*page 13*

G	Prepare for installation.
	Install Facility Commander Wnx software.
	   • Typical
	   • Custom
		page 27
		page 30
		page 33

H	License the system.	*page 91*
I	Configuring security settings.	*page 81*
J	Setting services to automatic startup	*page 82*
K	Log on to the server computer.	*page 129*
L	OPTIONAL: Set up the modems.	*page 159*
M	If purchased, install and set up CCTV software and hardware.	*page 163*
N	Add client computers, if applicable.	*page 6*

Prepare and install an FCWnx client computer

Note: If you are upgrading from a previous version of Facility Commander Wnx software, refer now to the appropriate upgrade PDF document.

Table 3. Steps to prepare a Facility Commander Wnx client computer

Task		Reference
Repeat these steps for each client computer.		
A	Check minimum hardware and software requirements.	*page 2*
B	Install network card.	*page 102*
C	If this client will be part of an existing domain, you will need to add it to the primary domain controller of that domain.	*page 103*
D	If using Imaging, an image capture device, such as a USB or USB2.0 camera	Refer to the instructions that came with your image capture device.
E	Prepare operating system: Windows Vista or Windows XP Professional	*page 103*
F	Prepare for installation. Install Facility Commander Wnx software. • Typical • Custom	*page 112* *page 114* *page 115*
G	License the client computer.	*page 94*
H	Configuring security settings.	*page 119*
I	Set services to Automatic Startup.	*page 119*

Chapter 2 Windows Server 2003/2008 Standard and Enterprise Edition Server setup

This chapter provides instructions for a sample configuration of a Windows 2003 and Windows 2008 Standard and Enterprise Edition server computer. We recommend that you review the *Preinstallation checklist* on page 8, then review the sample configuration carefully *before* you begin the installation.

Note: If you are installing to a Cluster environment, refer to your Microsoft documentation and the Documentation disc shipped with your Facility Commander Wnx system, *Installing Facility Commander Wnx in a Clustered Environment*, in PDF format.

Preinstallation checklist

To prepare your Windows 2003 or Windows 2008 server computer, refer to this checklist of reminders:

Note: If you purchased this system from GE, these tasks were completed for you.

- Meet minimum recommended hardware and software requirements.
- Install the network card.
- Configure the computer for the network.
- Install Windows 2003 or Windows 2008 Server.
  - Sections of this chapter include instructions specific to either Windows 2003 Server or Windows 2008 Server.
- Set the network properties.
- Set monitor resolution to a minimum of 1024 by 768 pixels.
- Install MS SQL Server 2005 or MS SQL Server 2008.
  If you have installed Windows 2003 Server, then install MS SQL Server 2005. If you installed Windows 2008 Server, then install MS SQL Server 2008.
  - You must have SQL Server installed prior to installing Facility Commander Wnx software.
  - In 'Server and Client Tools,' you must enter SPSQL in the 'Instance Name' field.
  - SQL Server Agent must be running to keep the databases in optimal condition.

Note: You may experience other behavior based on the version of Windows you have installed. These are guidelines and these instructions are based on a SAMPLE configuration.

Installing the network card

If you have not already done so, install the network card now. Follow the instructions included with the board.

Note: If you purchased this system from GE, the network card is installed for you.

Configuring the computer for the network

Determining server type

Before you continue, you will need to decide the server type in the network. Always consult with the network administrator before adding any computers to an existing network.

The server computer can be:

- Part of a new or existing workgroup.
- Part of an existing domain. (See *Adding the computer to an existing domain* on page 9.)

Note: Setup will be different depending on which option you choose. Decide which Server type applies before you continue with the installation.

Adding the computer to an existing domain

If the server computer will be part of an existing domain, you will need to add the server computer to the network. Since network configuration varies from company to company, see your network administrator for assistance.

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

It is important that the server and client systems use the same network properties. Refer to *Setting the network properties* on page 10 for more information or consult with your network administrator.

Installing the operating system

The server computer *must* be running Windows 2003 or Windows 2008 Server. If it is not already installed on your system, you will need to install it now, along with the latest applicable Service Packs.

Insert the Windows 2003 or Windows 2008 Installation disc in your CD/DVD drive and follow the instructions provided by the Microsoft documentation.

Note: If you purchased this system from GE Security, the operating system is installed for you.

This section represents an overview of the installation procedure and does not provide step-by-step instructions to install the operating system. During installation of the operating system, review the following items:

Windows user password

For Facility Commander Wnx to work correctly once installed, all Windows login IDs used in conjunction with Facility Commander Wnx should have an assigned password. *Do not* leave blank.

Matching user information

All computers within an FCWnx system must use a matching user name and password at login in order to communicate.

Assigning user passwords

We recommend that you assign a password to all user accounts. This will avoid security permission issues when attempting to access remote client computers.

Refer to your Windows 2003 or Windows 2008 Server documentation for additional information on setting up a user and assigning passwords.

Windows 2003 Server:

You will be asked to select a file system type. For added security, we recommend that you select **NTFS**.

On the **Licensing Modes** screen, select **Per server**.

Windows 2008 Server:

You will be asked to select a file system type. For added security, we recommend that you select **NTFS**.

By default, the Password Policy is enabled. You will be asked to change the Administrator password after installation of Windows 2008 Server.

For additional information, consult your Microsoft documentation.

Setting up your monitor

The minimum recommended monitor resolution required for Facility Commander Wnx is 1024 by 768. Small Fonts *must* be selected on the **General** tab of the **Advanced** properties. If using Imaging, the minimum color resolution is High Color (16-bit).

To access the display settings:

1. Right-click your mouse on the desktop.
2. Select **Properties** from the menu.
3. Click the **Settings** tab in the **Display Properties** window.
4. Change the **Screen resolution** to at least 1024 by 768 pixels.
5. Change the **Color quality** to at least 16 bit if using imaging.
6. Click **Apply**.
7. Click **OK**.

Setting the network properties

Windows Server 2003

It is important that the same network properties are used for both the Facility Commander Wnx server and client systems.

To check the network settings:

1. Right-click **My Network Places**.
2. Select **Properties** from the shortcut menu.
3. Right-click the **Local Area Connection** icon and select **Properties**.
4. Select **Internet Protocol TCP/IP**.
5. Click **Properties**.
6. Select one:

   • **Obtain an IP address automatically**

- **Use the following IP address**

Note: Facility Commander Wnx computers do not require static IP addresses. If you selected **Use the following IP address** option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.

7. Click **OK**.

8. Click **OK** to exit Local Area Connection Properties.

9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under **Device Manager**.

Windows Server 2008

To check the network settings:

1. Click **Start,** and then click **Control Panel**.

   Category view: Click **Network and Internet**, and then click **Network Sharing Center**.

   Classic view: Double-click **Network Sharing Center**.

2. Click **Manage network connections**.

3. Right-click the **Local Area Connection**, and then select **Properties**. The **Local Area Connection Properties** window opens.

4. Select **Internet Protocol Version 4 (TCP/IPv4)** and **Version 6 (TCP/IPv6)**.

5. Click **Properties**.

6. Select one:

   - **Obtain an IP address automatically**
   - **Use the following IP address:**

Note: Facility Commander Wnx computers do not require static IP addresses. However, if you selected **Use the following IP address** option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.

7. Click **OK**.

8. Click **OK** to exit Local Area Connection Properties.

9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under **Device Manager**.

Windows firewall

Windows Server 2003

Firewall exceptions list

If the Firewall is selected ON, **File and Printer Sharing** on the Firewall Exceptions list must be enabled.

To enable **File and Printer Sharing**:

1. Click **Start** and then click **Control Panel**.

2. On the control panel, double-click **Windows Firewall**.

3. On the **Exceptions** tab of the **Windows Firewall** window, make sure that the **File and Printer Sharing** check box is checked, and then click **OK**.

Windows Server 2008

Firewall exceptions list

If the Firewall is selected ON, the following must be enabled in the Firewall Exceptions list:

- File and Printer Sharing
- Network discovery
- Workgroup Only: Remote Administration

To enable Firewall Exceptions selections:

1. Click **Start** and then click **Control Panel**.

2. On the control panel, double-click **Windows Firewall**.

3. On the Exceptions tab of the **Windows Firewall** window, make sure that the following check boxes are checked, and then click **OK**.

- File and Printer Sharing
- Network discovery
- Workgroup Only: Remote Administration

Items specific to Windows Server 2008

Windows communication foundation HTTP activation

If the Video Management Console (VMC) will be running on this computer, Windows Communication Foundation HTTP Activation must be enabled.

To enable Windows Communication Foundation HTTP Activation:

1. Click **Start**, **Control Panel,** and then **Programs and Features**.

2. Select **Turn Windows features on or off** from the Tasks panel on the left.

3. Search for Microsoft .NET Framework 3.5, and then enable (check box) **Windows Communication Foundation HTTP Activation**.

Defining user accounts

The **Users and Passwords** selection in **Control Panel** allows you to add users to your computer and to add users to a group. In Windows 2003 and Windows 2008, permissions and user rights are usually granted to groups. By adding a user to a group, you give the user all the permissions and user rights assigned to that group.

For instance, a member of the Users group can perform most of the tasks necessary to operate the FCWnx system, such as logging on to the computer, creating files and folders, running programs, and saving changes to files. However, only a member of the Administrators group can add users to groups, change user passwords, or modify most system settings.

Adding additional users is **optional** but recommended since this clearly identifies each user in Windows.

Note: If you do choose to add additional users, you must assign them to the group 'SPAdmin.'

Installing Microsoft SQL Server

Note: If you purchased this system from GE Security, SQL Server is installed and configured for you.

The SQL Server software is user supplied and is not included as part of a Facility Commander Wnx system. The SQL Server program stores and controls the Facility Commander Wnx databases. If you do not have SQL Server installed on the server computer that will store your databases, you must install it now. The following procedures provide a standard installation and based on your needs you may choose other available features. There are two versions:

- *Microsoft SQL Server 2005* on page 13
- *Microsoft SQL Server 2008* on page 20

Microsoft SQL Server 2005

Installing Microsoft SQL Server 2005

To install Microsoft SQL Server 2005:

1. Insert Disc 1 of Microsoft SQL Server 2005 CD or the product DVD into the CD drive and wait as the Microsoft SQL Server 2005 window automatically opens.

2. When the **Start** window opens, select **Server components, tools, Books Online, and samples**, as shown in *Figure 1*.

Figure 1.   SQL Server 2005 Start

3. When the **End User License Agreement** window opens, review the agreement, select **I accept the licensing terms and conditions,** and then click **Next**.

4. A window displays a list of prerequisites, required prior to installing SQL Server. Click **Install** to begin installing the components as shown in *Figure 2*.

Figure 2.   Installing Prerequisites
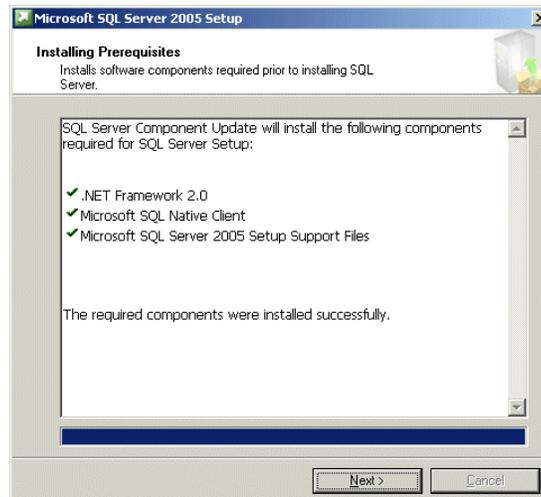
Note: This process takes several minutes.

5. When the process is complete, click **Next** to continue.

6. The **System Configuration Check** window opens. No user action is required.

7. The **Welcome to the Microsoft SQL Server Installation Wizard** opens. Click **Next** to continue.

8. A second **System Configuration Check** opens. A list of potential installation problems is displayed. When the system check is finished, click **Next** to continue.

9. The **Windows Installer** window opens briefly. No user action is required.

10. The **Microsoft SQL Server Installation** window displays a progress bar as setup is preparing to continue with the installation. No user action is required.

11. The Registration Information window opens as shown in *Figure 3* on page 15.

Figure 3.   Registration Information
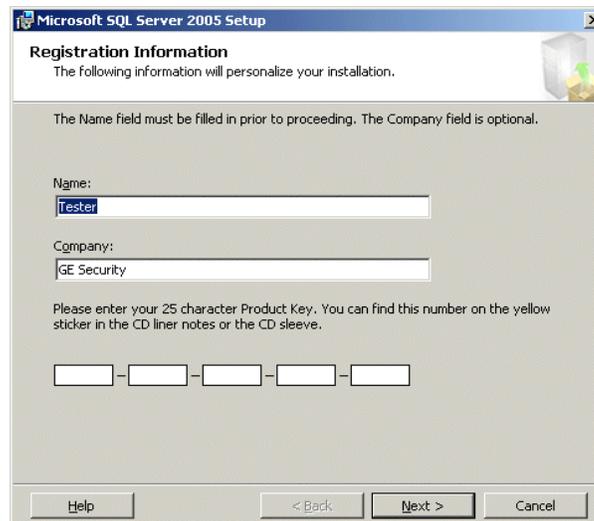
12. Enter a name, company, and the 25-character Product Key found on the yellow sticker in the DVD liner notes or the DVD sleeve. Verify your entry, and then click **Next**.

13. The **Components to Install** window opens as shown in *Figure 4*.

Figure 4.   Components to Install
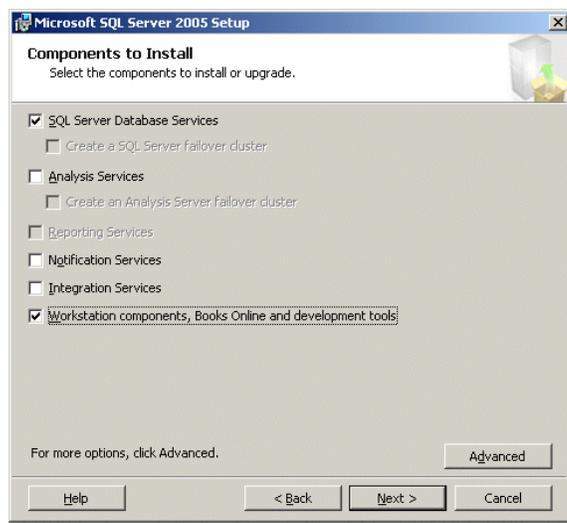
14. Select the following items, and then click **Next**:
    • SQL Server Database Services
    • Workstation components, Books Online and development tools

15. The **Instance Name** window opens as shown in *Figure 5* on page 16.

Figure 5.   Instance Name
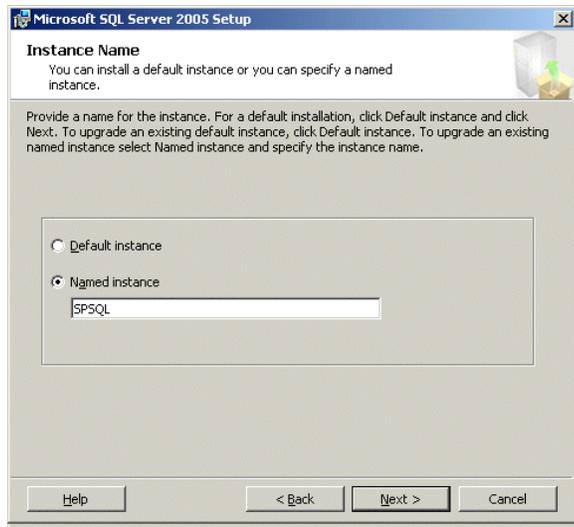
16. Select **Named Instance** and enter **SPSQL**. Click **Next**.

> **Note:**   It is very important that you enter the correct instance for the appropriate product.

17. The **Service Account** window opens as shown in *Figure 6*.

Figure 6.   Service Account
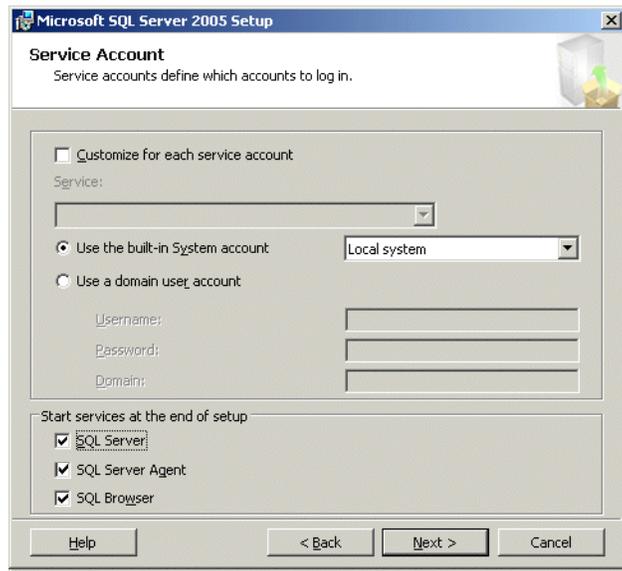
- If you select **Use the built-in System account**, verify that **Local system** displays in the dialog box.
- In the **Start services at the end of setup** grouping, select **SQL Server** and **SQL Browser**. Click **Next**. If you select **SQL Server Agent** at this time, you do not have to set properties later, as in *Setting SQL Server Agent properties* on page 19.

- Click **Next**.

18. An **Authentication Mode** window opens as shown in *Figure 7*.

Figure 7. Authentication Mode

19. Select **Mixed Mode** and enter the 'sa' password, and then enter the password again to confirm. This password is case-sensitive. Click **Next**.

   Note: We strongly suggest that you assign a unique password of your choice. This is the sa user password, used later in the installation of your application, during creation of the database.

20. A **Collation Settings** window opens. Leave all default settings. Do not change any selections on this window. Click **Next**.

21. An **Error and Usage Report Settings** window opens. Do not change any options on this page. Accept the defaults, and then click **Next**.

22. When the **Ready to Install** window opens, verify the components selections. Click **Back** to change any of the settings or click **Install** to continue.

23. An **Installing Microsoft SQL Server** window opens briefly and automatically moves on to **Setup Progress** as shown in *Figure 8* on page 18.

Figure 8.   Setup Progress
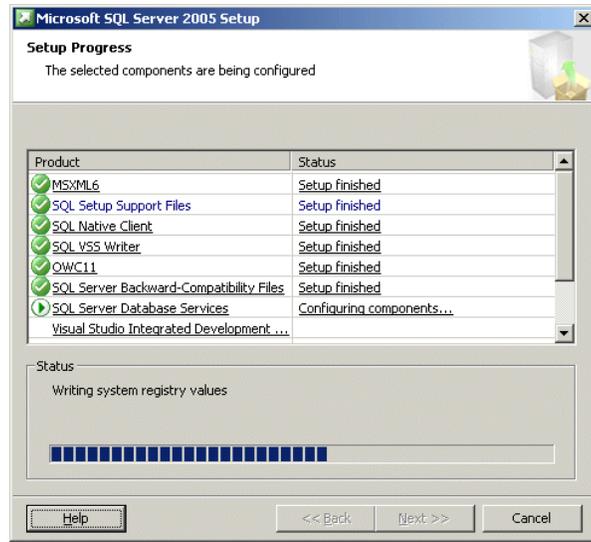
24. A checklist displays as components are configured and validated. A status column indicates the progress.

    Note: This process takes quite some time. During the process, a message displays, requesting that you insert Disc 2 of the SQL Server 2005. Insert Disc 2, and then click **OK**. Please wait. (This does not apply if you are installing from a DVD.)

25. When the process is finished, click **Next.**

26. A **Completing Microsoft SQL Server 2005 Setup** window opens. A list of setup logs displays sources of information describing the configuration. Review the list, and then click **Finish** to exit the Installation Wizard.

27. We recommend that you restart your computer at this time.

Install SQL 2005 Service Pack 2

Service Pack 2 is required. If it is not currently installed, you will need to do so now.

1. Insert the FCWnx Windows Updates disc into the CD/DVD drive.

2. Navigate to the SQL Server 2005 SP2 folder.

3. Double click on the file: `SQLServer2005SP2-KB921896-x86-ENU.exe`

4. Follow the on-screen instructions. When prompted, make sure that you select the SPSQL instance.\

5. After the installation is complete, the **SQL Server 2005 User Provisioning Tool for Vista** window opens. Click **Cancel**.

6. We recommend that you restart your computer at this time.

Setting SQL Server Agent properties

By default, the SQL Server Agent service is disabled when SQL Server 2005 is installed. This service must be running to keep the databases in optimal condition.

Note: See step 17 on page 16. If you selected SQL Server Agent on the Service Account window, you do not have to set Server Agent properties at this time.

1. Right-click **My Computer** on your desktop and select **Manage**.

2. In the **Computer Management** window, expand **Services and Applications** and then expand **Services** to display the list of services on your computer.

3. Select and right-click **SQL Server Agent (SPSQL)**, where SPSQL is used in this example.

4. Select **Properties** to open the Properties window.

5. In the Startup type, select **Automatic** from the drop-down list.

6. Click **OK**.

7. We recommend that you restart your computer at this time.

Microsoft SQL Server 2005 communication configuration

To enable the Protocols for SPSQL:

1. Click **Start**, **All Programs**, **Microsoft SQL Server 2005**, **Configuration Tools, SQL Server Configuration Manager**, and then **SQL Server Network Configuration**.

2. Double-click **Protocols for SPSQL**. One at a time, right-click on **Shared Memory**, **Named Pipes**, and **TCP/IP**, and then select **Enabled**.

To enable the Protocols for SQL Native Client:

1. From the **SQL Server Configuration Manager**, click **SQL Native Client 10.0 Configuration**.

2. Double-click **Client Protocols**. One at a time, right-click on **Shared Memory**, **Named Pipes**, and **TCP/IP**, and then select **Enabled**.

3. Click **File**, and then **Exit**.

4. We recommend that you restart your computer at this time.

Microsoft SQL Server 2008

Installing Microsoft SQL Server 2008

To install Microsoft SQL Server 2008:

1. Insert the Microsoft SQL Server 2008 CD or the product DVD into the CD/DVD drive and wait as the Microsoft SQL Server 2008 window automatically opens.

2. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

3. A window displays a list of prerequisites, required prior to installing SQL Server. Click **OK** to begin installing the components.

4. When the **.NET Framework Welcome to Setup** window opens, review the agreement, select **I have read and ACCEPT the terms of the Licence Agreement**, and then click **Install**.

5. When the process is complete, the **.NET Installation** complete window opens, click **Exit.**

6. The **Windows Update Standalone Installer** window opens, click **OK** to install Windows software updates.

7. A popup window opens indicating that the installation is complete, click **Restart Now.**

8. After the computer has been restarted, log on as Administrator using your Administrator password.

9. You must restart the SQL Server 2008 installation again by either of the following methods:

   • Open and close your CD/DVD drive to initialize setup
   • Using Windows Explorer, navigate to the CD/DVD drive and double-click **Setup.exe**.

10. The **SQL Server Installation Center** window opens. Click **Installation** and then click **New SQL SERVER stand alone installation or add features to and existing installation** as shown in *Figure 9*.

Figure 9.   SQL Server Installation Center

11. The **Setup Support Rules** window opens. When the operation is complete, click **OK**.

12. The **Product Key** window opens. If the product key is not already entered for you, enter the product key and then click **Next**.

13. The **License Terms** window opens. Review the agreement, and then select **I accept the license terms.** Click **Next**.

14. The **Setup Support Files** window opens and provides a list of components that are required for SQL Server setup. Click **Install**.

15. The **Setup Support Rules** window opens and identifies problems that might occur when you install SQL Server Setup support files. Click **Next**.

16. The **Feature Selection** window opens as shown in *Figure 4*. Select the following options, and then click **Next**.

   Instance Features:

   • Database Engine Services
   • Full-Text Search.

   Shared Features:

   • Client Tools Connectivity
   • Client Tools Backwards Compatibility
   • Management Tools - Basic
   • Management Tools - Complete.

Figure 10. Feature Selection
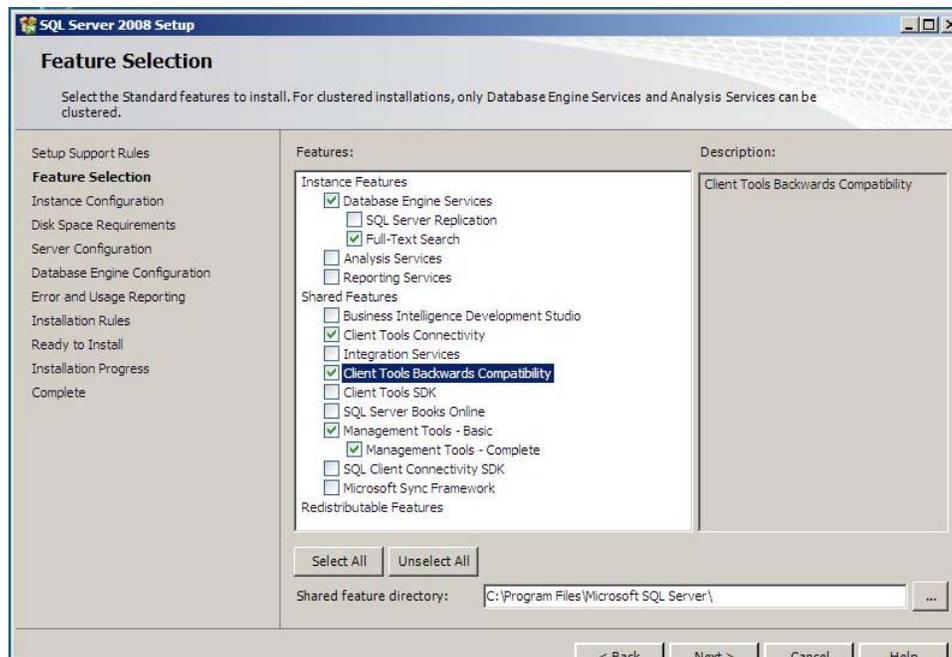
17. The **Instance Configuration** window opens. Select **Named Instance**, and then enter **SPSQL**. Click **Next**. See *Figure 11*.

   Note: It is very important that you enter the correct instance for the appropriate product.

Figure 11. Instance Configuration
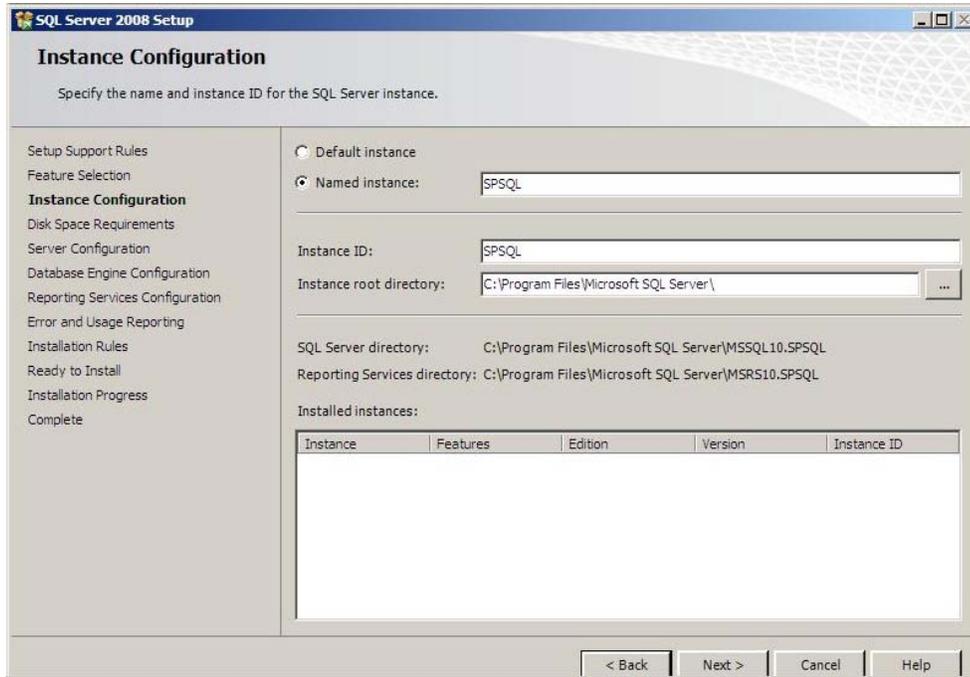
18. The **Disk Space Requirements** window opens. Click **Next**.

19. The **Server Configuration** window opens. Click the **Service Accounts** tab, and then configure settings as follows: See *Figure 12*.

    Click **Use the same account for all SQL Server services** to apply the same username and password to the **SQL Server Agent**, **SQL Server Database Engine** and **SQL Server Reporting Services.**

    Enter the following information, and then click **OK**:

    • **Account Name**: Enter Administrator or the domain account name.
    • **Password**: Enter the administrator password for this operating system.

    Startup Type: Select Automatic for **SQL Server Agent, SQL Server Database Engine**, and **SQL Server Browser**.

    Click **Next**.

Figure 12. Server Configuration
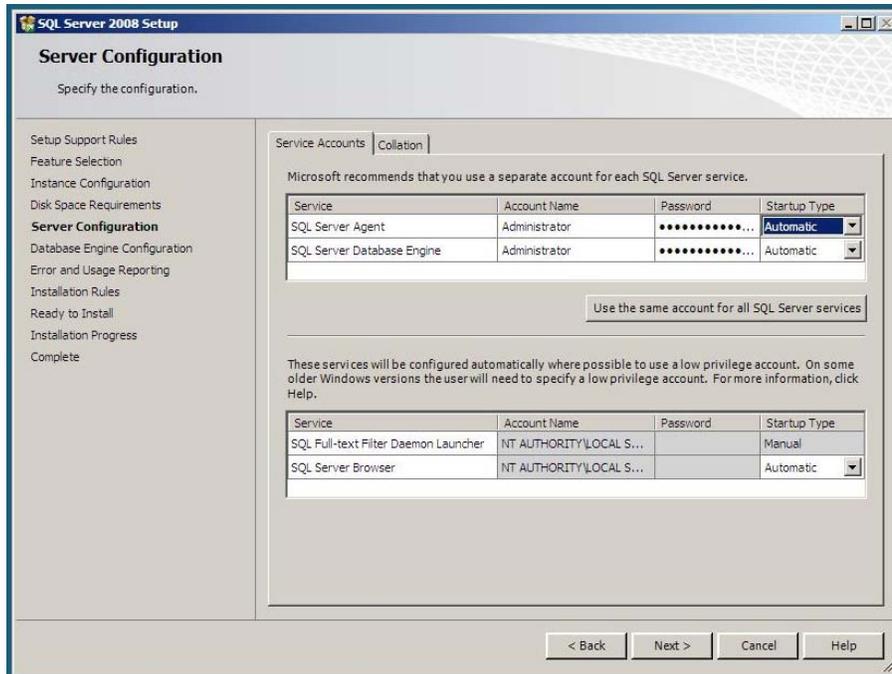
20. The **Database Engine Configuration** window opens. Click the **Account Provisioning** tab, and then configure the settings as follows: See *Figure 13*.

    Authentication Mode: Click **Mixed Mode (SQL Server authentication and Windows authentication.**

    Built-in SQL Server system administrator account: In the **Enter password** field, enter the 'sa' password. The default 'sa' password is **SecurityMaster08** (case sensitive).

    Specify SQL Server administrators: Click **Add**. The **Select Users or Groups** window opens as shown in *Figure 14*. In the **Enter the object names to select field**, enter Administrator, and then click **Check Names** to make sure you have entered the Administrator for this computer. Click **OK** to close the **Select Users or Groups** window.

    Click **Next**.

Figure 13. Database Engine Configuration
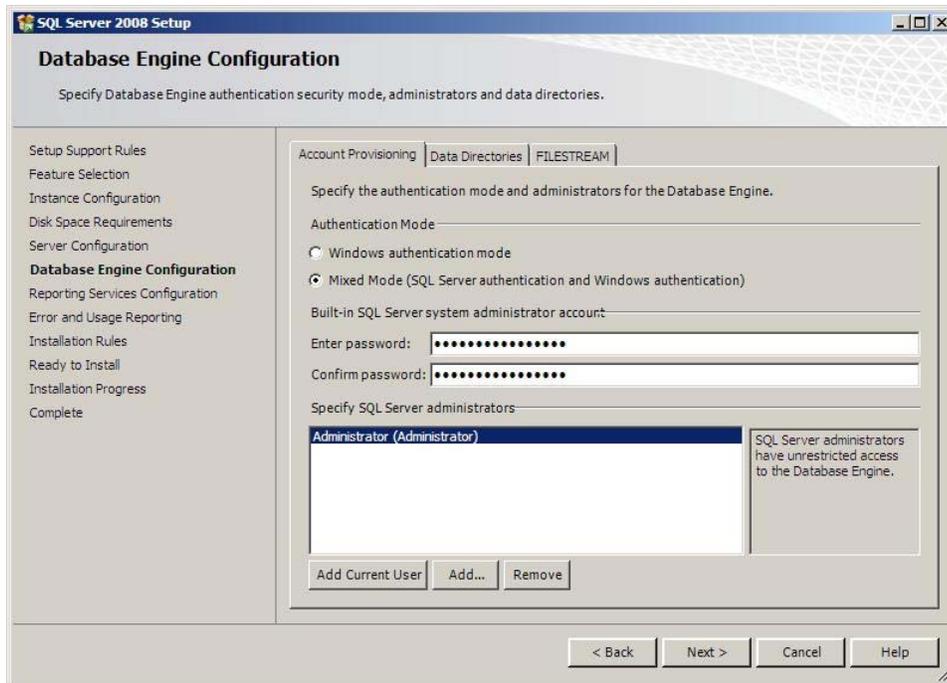
Figure 14. Select Users or Groups

21. The **Error and Usage Reporting** window opens. Click **Next**.

22. The **Installation Rules** window opens. Click **Next**.

23. The **Ready to Install** window opens. Click **Install**.

24. The **Installation Progress** window opens. When the setup process is complete, click **Next**.

25. The **Complete** window opens. Click **Close**.

26. We recommend that you restart your computer at this time.

Microsoft SQL Server backward compatibility

Run SQL Serve backward compatibility as follows:

1. Insert the FCWnx 7.5 Installation disc in your CD/DVD drive.

2. Using Windows Explorer, navigate to the folder **SQLExpress** and find the file **SQLServer2005_BC.msi**.

3. Double-click on **SQLServer2005_BC.msi** to run SQL Server 2005 backward compatibility.

4. After installation is complete, we recommend that you restart your computer.

Microsoft SQL Server 2008 communication configuration

To enable the Protocols for SPSQL:

1. Click **Start**, **All Programs**, **Microsoft SQL Server 2008**, **Configuration Tools, SQL Server Configuration Manager**, and then **SQL Server Network Configuration**.

2. Double-click **Protocols for SPSQL**. One at a time, right-click on **Shared Memory**, **Named Pipes**, and **TCP/IP**, and then select **Enabled**.

To enable the Protocols for SQL Native Client:

1. From the **SQL Server Configuration Manager**, click **SQL Native Client 10.0 Configuration**.

2. Double-click **Client Protocols**. One at a time, right-click on **Shared Memory**, **Named Pipes**, and **TCP/IP**, and then select **Enabled**.

3. Click **File**, and then **Exit**.

4. We recommend that you restart your computer at this time.

Cluster environment

Contact the Enterprise Services Department of GE Security at (561) 998-6168, to discuss Windows Clustering setup and installation before installing Facility Commander Wnx. GE Security business sales representative or Customer Support, at 1 888 GE SECURITY (437-3287) can provide additional details of these services and a quotation applicable to your system configuration.

What's next?

Proceed to *Chapter 3, Installing Facility Commander Wnx Enterprise Edition Server* on page 27.

Chapter 3　Installing Facility Commander Wnx Enterprise Edition Server

This chapter includes instructions for installation of Facility Commander Wnx Server software on Windows 2003 or Windows 2008 Standard Edition server computers. Follow instructions in the order presented. These instructions pertain to Facility Commander Wnx Enterprise Edition.

In this chapter:

Installing Facility Commander Wnx

Table 4.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Add add'l client computers	Finished!
You are here!					

Before you begin

- Your Facility Commander Wnx system *will not* install unless minimum requirements have been met. Before you begin, refer to *Recommended minimum requirements* on page 2 and *Preinstallation checklist* on page 8.
- You *must* install the appropriate Windows Service Pack prior to the Facility Commander Wnx installation or the installation program will stop.
- You *must* install the appropriate Windows SQL Server Service Pack prior to the Facility Commander Wnx installation or the installation program will stop.
- If you are installing on a **non-English operating system**, the following items *must* be installed **in the appropriate language to the operating system you are installing**. You cannot install Facility Commander Wnx until this is accomplished.
  - .NET Framework
  - MDAC

Starting the installation

Note: If you purchased this system from GE Security, **Facility Commander Wnx** is installed for you. Skip to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125.

1. You *must* be logged in as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging on to a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

2. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

3. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

4. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

   A series of windows display as the listed components automatically install, as needed. Answer the prompts as appropriate and continue. This takes several minutes.

   - .NET Framework
   - MDAC
   - Windows Installer

5. The following components cause the system to restart when a new version is installed:

   • .NET Framework
   • MDAC
   • Windows Installer

   If your computer restarts, log on as Administrator and installation continues. Please wait.

6. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the **Welcome to the Facility Commander Wnx 7.5 Installation Wizard** window opens. Continue with *Facility Commander Wnx software installation begins* on page 29.

Facility Commander Wnx software installation begins

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. Click **Next**. The **License Agreement** window opens.

2. Select **I accept the license agreement,** and then click **Next**.

3. Select **Typical** or **Custom**. Refer to *Table 5*. Click **Next**.

Table 5. Installation type

Typical installation type:	Custom installation type:
The installation requires little user interaction and you do not need to make any special choices. Follow instructions in *Typical Installation* on page 30.	If you need to accomplish any one of the following tasks, you must select Custom: • Use Credential Aliasing. • Change the password for the Window logon USERID 'secure.' **Note:** If you change the default Facility Commander Wnx user password, all computers must use the identical Facility Commander Wnx user replacement password. • Select options for Facility Commander Wnx databases and file shares to be separated from the Facility Commander Wnx application code and placed on another computer defined by the customer. Refer to *Custom configuration options* on page 35 for a list of possible configuration options. Follow instructions in *Custom Installation for Facility Commander Wnx Enterprise Edition* on page 33.

Typical Installation

To continue with a Typical installation, follow the instructions below:

Figure 15. Select Installation Type window - Typical
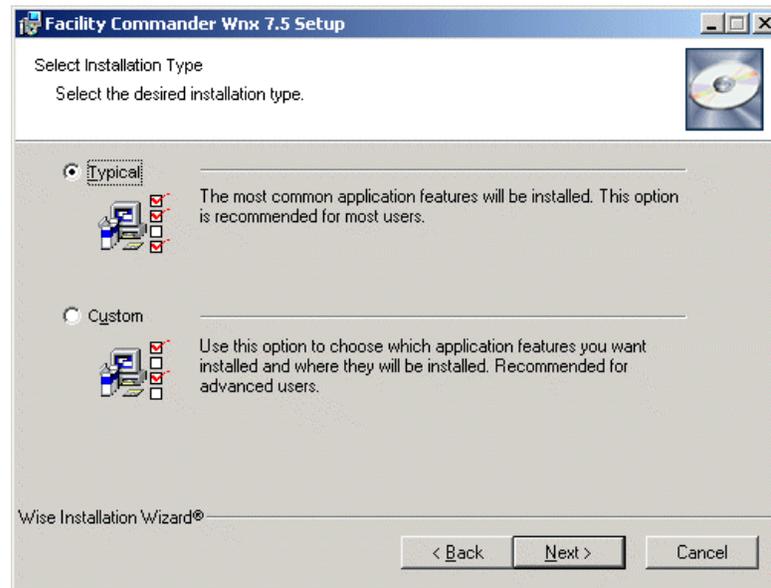
1. At the **Install FCWnx Client/Server** window, select **Server**, and then click **Next**. The **Ready to Install the Application** window opens.

2. The **SQL Server Password** dialog box opens. You must enter the SQL Server 'sa' password in the dialog box. This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13. Enter your previously assigned SQL password here. (If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.)

3. The default destination folder is indicated. You may want to install Facility Commander Wnx in another location. Click **Browse** to navigate to the program folder of your choice, for placement of Facility Commander Wnx files.

4. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This takes several minutes.

5. When the **Facility Commander Wnx 7.5 has been successfully installed** window opens, click **Finish**. The **Select Facility Commander Wnx Edition** window opens, as shown in *Figure 16* on page 31.

Figure 16. Select FCWnx Edition
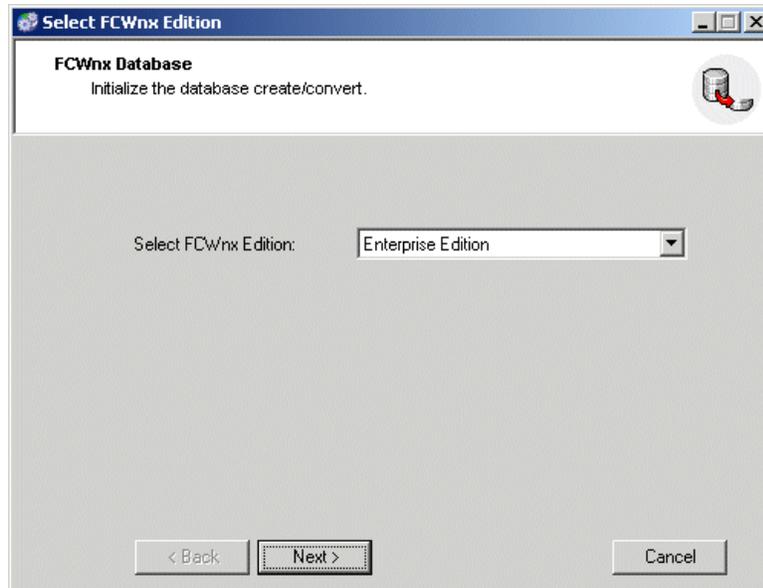
6. Select **Enterprise Edition**, and then click **Next**.

7. The **Create/Convert Database** window opens, as shown in *Figure 17*. The **Password** field displays your previously assigned and encrypted SQL 'sa' password. (If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.)

Figure 17. Create/Convert Database window
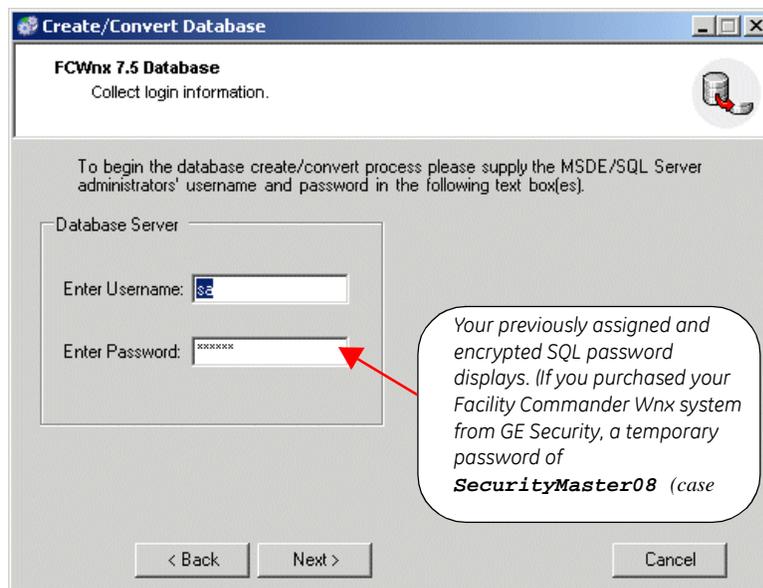
8. Click **Next** to open the **Create Database** window, as shown in *Figure 18*.

    The default directories are indicated. Each Facility Commander Wnx 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.
    •   **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 18. Create Database window
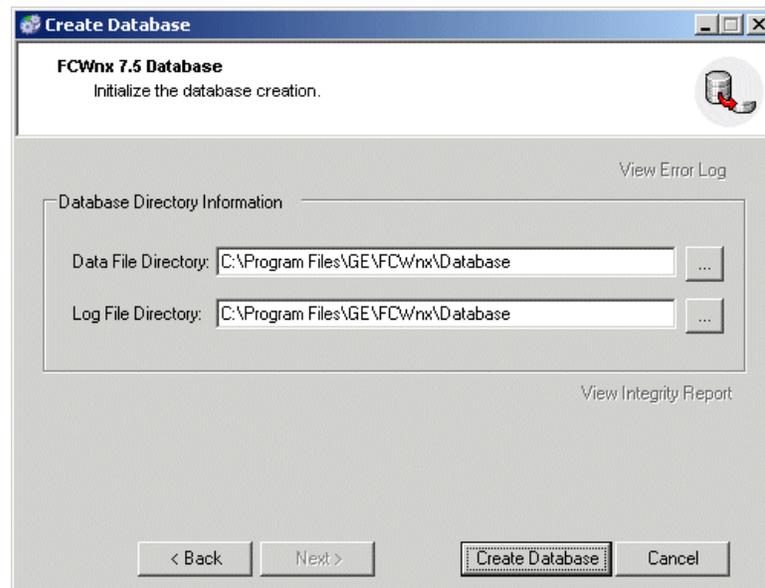
9. Review the **Database Directory Information**. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.

10. When the database creation is complete, a message displays informing you that the database was successfully created/converted.

    Note: A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder.

11. Click **OK**. The dialog box closes.

12. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

13. Continue with *Licensing your Facility Commander Wnx system* on page 81.

Table 6.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

Custom Installation for Facility Commander Wnx Enterprise Edition

⚠️ **CAUTION:**   Custom installation is recommended for experienced software installers only

Note: You *must* select **Custom** to achieve any of the following:

- Credential aliasing
- Change the password for the Window logon USERID 'secure.'
- Selectively installing **Database Server**, **File Server**, or **FCWnx Client Application.** These configuration options allow Facility Commander Wnx databases and file shares to be separated from Facility Commander Wnx application code and placed on another computer defined by you.

Note: Installing Facility Commander Wnx in a Cluster environment requires special configuration. Refer to the document, *Installing Facility Commander Wnx in a Clustered Environment*, included on your Document disc that shipped with your Facility Commander Wnx system. Contact the Enterprise Services Department of GE Security, at (561) 998-6168, to discuss Windows Clustering setup and installation before installing Facility Commander Wnx. GE Security business Sales or Customer Support, at 1 888 GE Security (437-3287), can provide additional details of these services and a quotation applicable to your system configuration.

To begin your Custom installation:

1. Select **Custom** as the type of installation, and then click **Next**.

Figure 19. Select Installation Type window - Custom
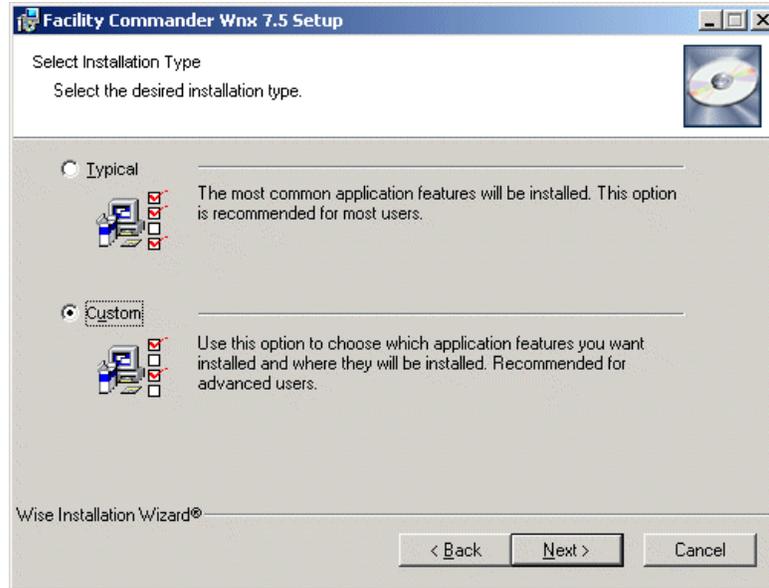
2.   The **Custom Configuration** window opens as shown in *Figure 20* on page 34. This window allows you to choose which Facility Commander Wnx features to configure on this computer.

Figure 20. Enterprise Server - Custom Configuration
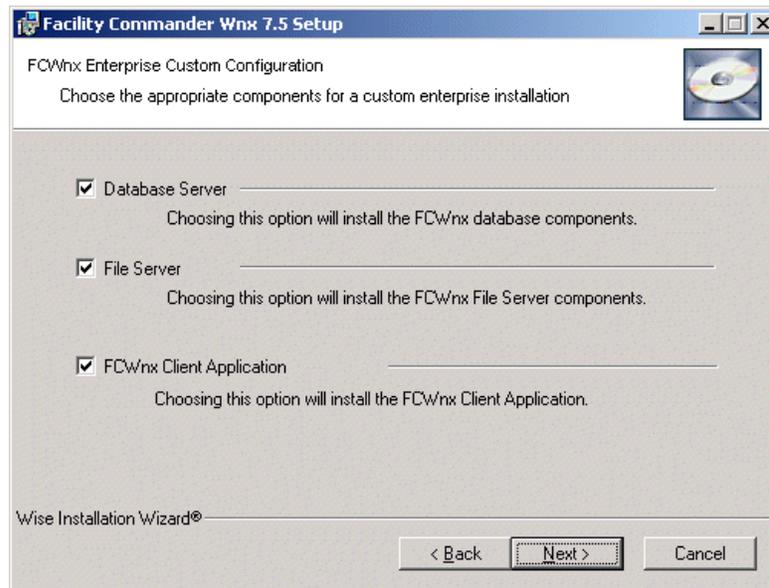
3.   Select one or more of the options pertaining to the system you are installing. Refer to *Table 7* and *Custom configuration options* on page 35.

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

Table 7.   Enterprise server options

Option	Description
Database server	Selecting this option designates this server as the database server. This server is then used to store the three databases, SecurePerfect, SecurePerfectArchive, and SecurePerfectHistory. An additional selection divides data files and transaction logs. The **Database Server** option is a prerequisite in order to install **File Server** and **FCWnx Application**.
File server	**Selecting this option designates this Server as the** Facility Commander Wnx file server. This server stores the data files shared by clients on the Facility Commander Wnx network. File shares include graphics, images, signatures, designs, video, and firmware. The **File Server** option is a prerequisite in order to install **FCWnx Application**.
FCWnx client application	**Selecting this option designates this Server for** the Facility Commander Wnx application. Facility Commander Wnx client file shares install. This includes the executable file, Facility Commander Wnx services, and Facility Commander Wnx DLLs.

4. After you have selected the appropriate options, click **Next**.

Custom configuration options

The scenarios in the following custom configurations are the result of selections made on the **FCWnx Enterprise Custom Configuration** window. Refer to *Figure 20* on page 34.

⚠ **CAUTION:**   Custom installation is recommended for experienced software installers only.

Note: Some components require that a prerequisite component be installed at another computer before you begin. **(Windows that display during installation are similar to the sample configurations presented.)**

Table 8.   Custom configuration options

Scenario	Begin on page:
1. *Database server, file server, and FCWnx application configuration*	*page 36*
2. *Database server and file server configuration*	*page 41*
3. *Database server and FCWnx application configuration*	*page 51*
4. *Database server configuration*	*page 60*
5. *Each component on a separate computer*	*page 69*

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

1. Database server, file server, and FCWnx application configuration

Components	Computer 1	Computer 2	Computer 3
Database server	✔		
File server	✔		
FCWnx application	✔		

Note: This configuration has all components installed on Computer 1. Although these are the same components as **Typical**, you chose **Custom** to use credential aliasing or to change the **secure** password.

1. On the **FCWnx Enterprise Custom Configuration** window, select **Database Server**, **File Server** and **FCWnx Client Application**.

Figure 21. FCWnx Enterprise Custom Configuration - All components selected
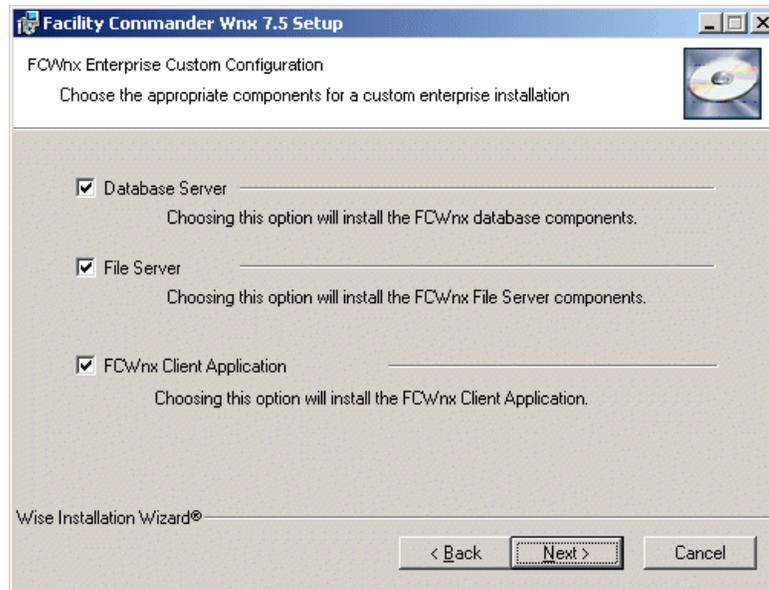
2. The **Select Credential Aliasing Option** window opens as shown in *Figure 22* on page 37. This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is only displayed to authorized users.

   • **Do not use aliases** indicates no aliasing will be used.
   • **Use aliases automatically provided by FCWnx** assigns the credential number for you.
   • **Use aliases manually provided by user** aliasing allows you to assign the number.

3. Choose one aliasing option, then click **Next**.

Figure 22. Credential Aliasing window
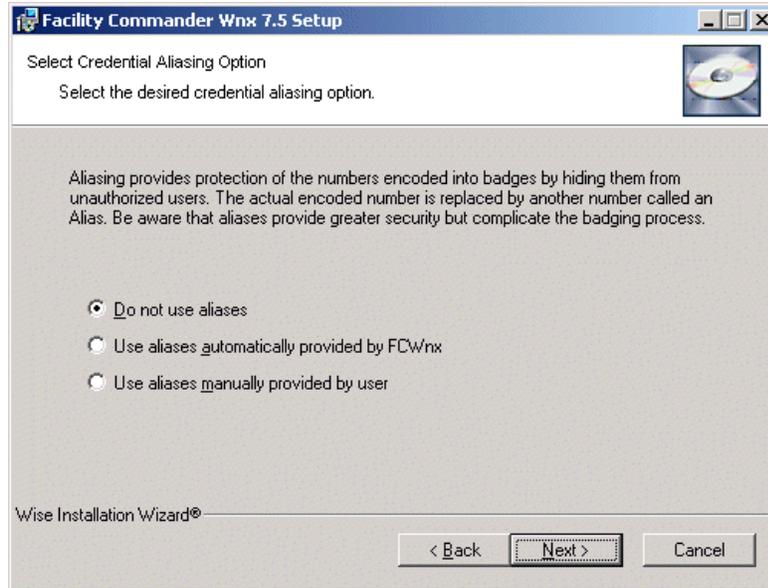
4.   The **Change the "Secure" password** window opens as shown in *Figure 23* on page 37.

Figure 23. Change the "Secure" Password window

5. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

6. Click **Next** to continue. The **Ready to Install the Application** window opens.

7. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.

   Note: Enter your previously assigned SQL password. (If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

   The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

8. Click **Next** to continue. A series of Access Control and Security Management windows open as Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

9. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **Select Facility Commander Wnx Edition** window opens.

To select a Facility Commander Wnx edition:

1. From the drop-down list of Facility Commander Wnx editions, select **Enterprise Edition** as shown in *Figure 24* on page 39.

2. Click **Next**. The **Create/Convert Database** window opens, as shown in *Figure 25* on page 39.

Figure 24. Select FCWnx Edition
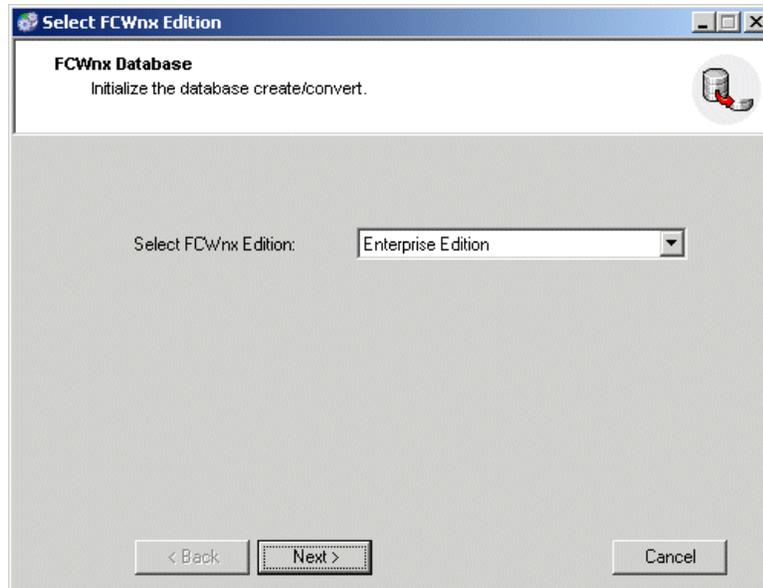
Note: We recommend that you *do not* select **Cancel** in this window. However, if you must exit at this time and plan to create you database at another time, refer to *Create FCWnx Database* on page 128 to complete a database creation outside of the installation sequence, from the **Run** menu.

3. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.)

Figure 25. Create/Convert Database window
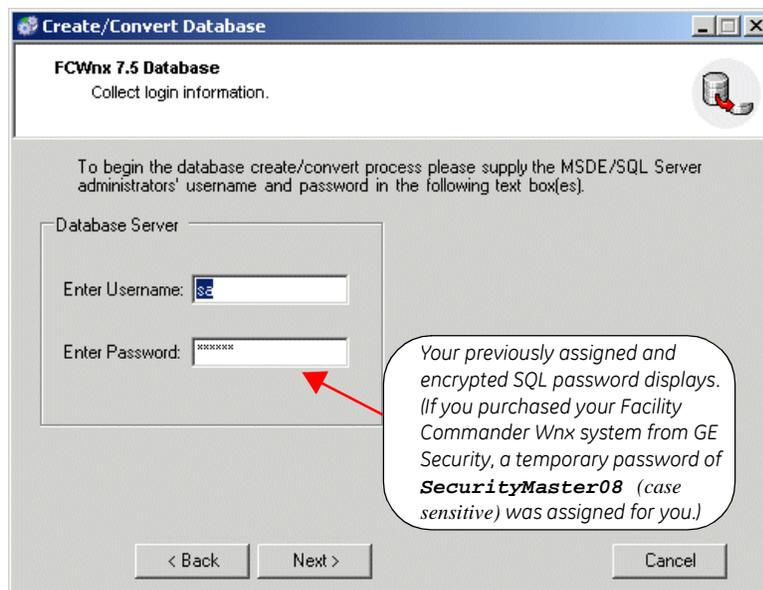
Note: If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

4. Click **Next** to continue. The **Database Directory Information** window opens, as shown in *Figure 26* on page 40.

    The default directories are indicated. Each Facility Commander Wnx 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.
    - **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 26. FCWnx Database window
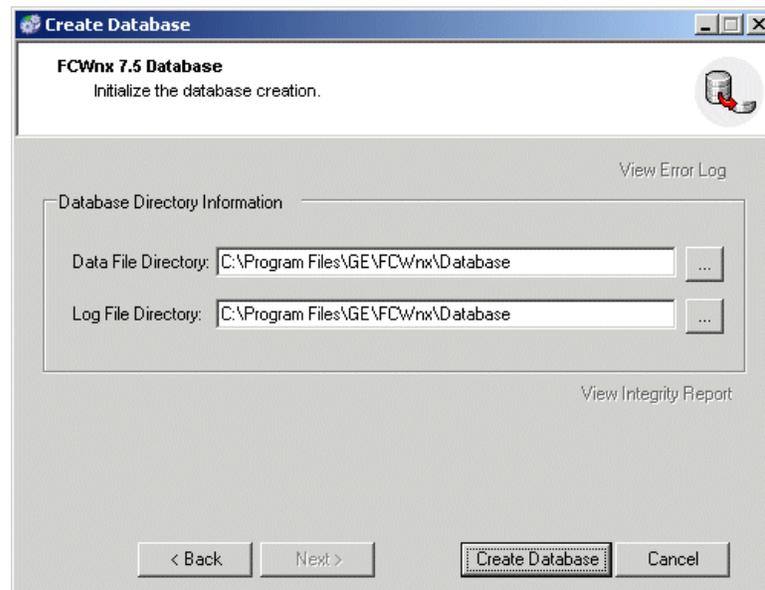
5. Review the Database Directory Information. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes. When the database creation is complete, a message displays informing you that the database was successfully created/ converted.

    Note: A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder. The Integrity utility runs automatically, following a database creation. No user interaction is required. Refer to your Facility Commander Wnx Online Help for additional information about the Integrity utility.

6. Click **OK**. The dialog box closes.

7. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

8. Continue with *Licensing your Facility Commander Wnx system* on page 81.

Table 9.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

2. Database server and file server configuration

Components	Computer 1	Computer 2	Computer 3
Database server	✔		
File server	✔		
FCWnx client application		✔	

Note: This configuration has the database server and the file server installed on Computer 1, then the FCWnx client application is installed on Computer 2.

Database server and file server on first computer

1. On the **FCWnx Enterprise Custom Configuration** window, select **Database Server** and **File Server**. Click **Next**.

Figure 27.   FCWnx Enterprise Custom Configuration - Database Server and file server
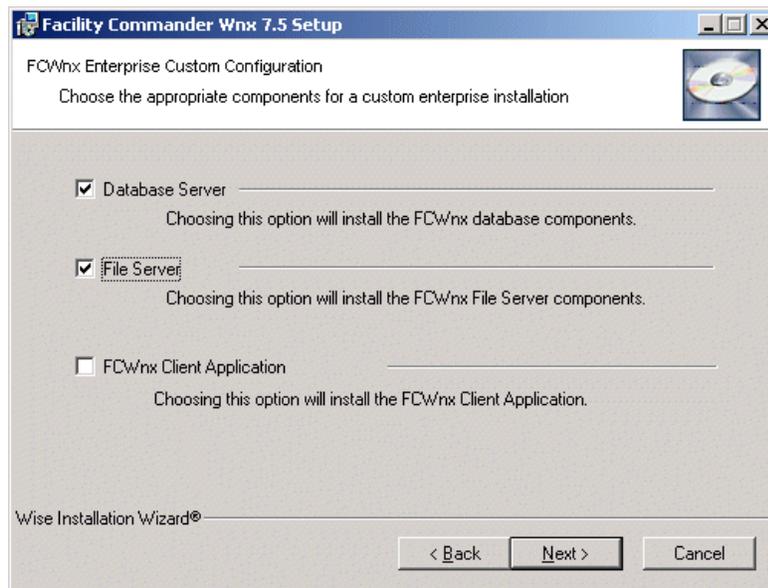
2. The **Select Credential Aliasing Option** window opens as shown in *Figure 28*.

3. This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is only displayed to authorized users.

- **Do not use aliases** indicates no aliasing will be used.
- **Use aliases automatically provided by FCWnx** assigns the credential number for you.
- **Use aliases manually provided by user** aliasing allows you to assign the number.

Figure 28. Credential Aliasing window
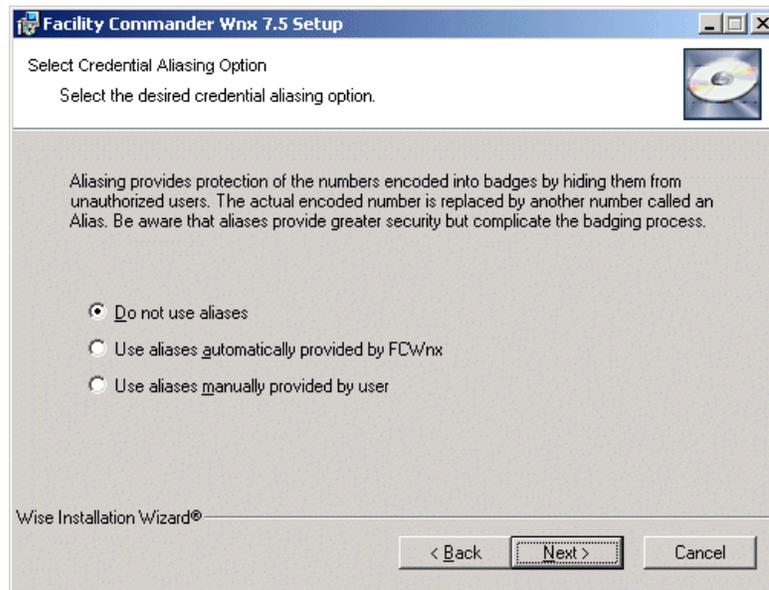
4. Choose one aliasing option, and then click **Next**. The **Change the 'secure' Password** window opens, as shown in *Figure 29*.

Figure 29. Change the 'secure' Password window

5. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

6. Click **Next. The Ready to Install the Application** window opens.

7. Enter the SQL Server password for the 'sa' user.

    The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

8. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

9. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **Select Facility Commander Wnx Edition** window opens.

To select a Facility Commander Wnx edition:

1. From the drop-down list of Facility Commander Wnx editions, select **Enterprise Edition**, as shown in *Figure 30* on page 44.

2. Click **Next**.

Figure 30. Select FCWnx Edition
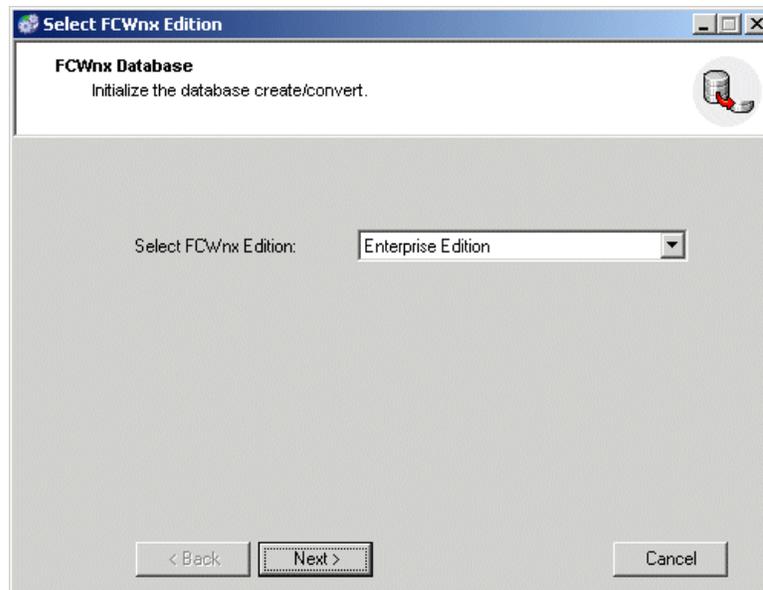
To create a database:

1. The **Create/Convert Database** window opens, as shown in *Figure 31* on page 45.

Note: We recommend that you *do not* select **Cancel** in this window. However, if you must exit at this time and plan to create you database at another time, refer to *Installing Microsoft SQL Server* on page 13 to complete a database creation outside of the installation sequence, from the Run menu.

Figure 31. *Create/Convert Database window*
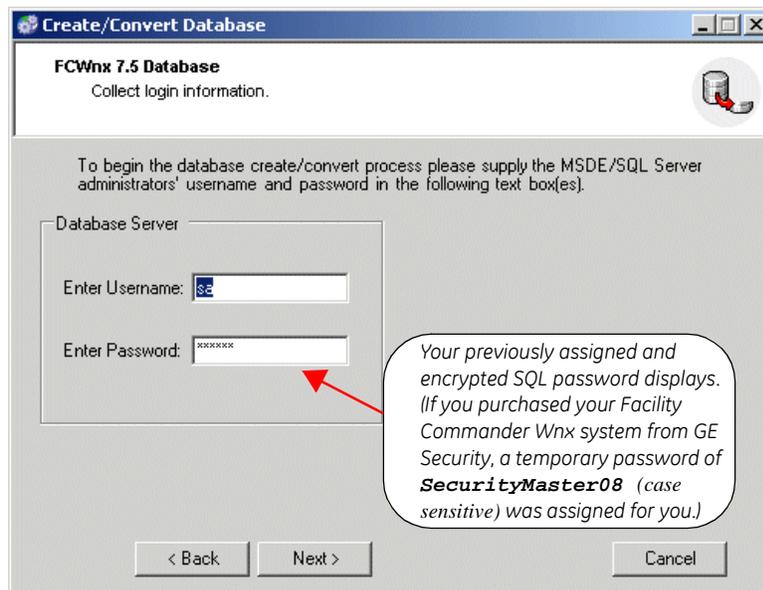
2. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.)

Note: If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

3. Click **Next** to continue. The **Database Directory Information** window opens, as shown in *Figure 32* on page 46.

The default directories are indicated. Each Facility Commander Wnx 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.
*   **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 32. FCWnx Database window

4. Review the **Database Directory Information**. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.

⚠️ **WARNING:** 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.

5. When the database creation is complete, a message displays informing you that the database was successfully created/converted.

Note: A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder. The Integrity utility runs automatically, following a database creation. No user interaction is required. Refer to your Facility Commander Wnx Online Help for addition information about the Integrity utility.

After creating your database:

1. Remove the Facility Commander Wnx installation disc, and continue with instructions to install **FCWnx Client Application**. Follow instructions for the operating system installed on second computer:

   • *Windows XP Professional or Windows Vista operating system:* on page 47

   OR

   • *Windows 2003 or Windows 2008 Server operating system:* on page 47

FCWnx client application on second computer

Windows XP Professional or Windows Vista operating system:

Note: Prerequisite: Database server installation and file server installation already complete. Continue with instructions as listed in *Chapter 6, Installing Facility Commander Wnx Software on additional clients* on page 109.

Windows 2003 or Windows 2008 Server operating system:

Note: Prerequisite: Database server installation and file server installation already complete.

1. Verify that the computer you are configuring meets minimum requirements.

2. If not already done, install the Windows 2003 or Windows 2008 operating system, but *do not* install Microsoft SQL.

3. You *must* be logged in as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging onto a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

4. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

5. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

6. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

   A series of windows open as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

   • .NET Framework
   • MDAC
   • Windows Installer

   Installing non-English operating systems:

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

   • .NET Framework
   • MDAC

   A popup message opens, 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 Facility Commander Wnx until this is accomplished.

7. The following components cause the system to restart when a new version is installed:

   • .NET Framework
   • MDAC
   • Windows Installer

   If your computer restarts, log on as administrator and installation continues.

8. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the

Welcome window opens. Continue with *Facility Commander Wnx software installation begins* on page 48.

Facility Commander Wnx software installation begins

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. Click **Next**. The **License Agreement** window opens.

2. Select **I accept the license agreement,** and then click **Next**.

3. When the **Select Installation Type** window opens, as shown in *Figure 33* on page 48, select the type of installation as **Custom**.

Figure 33. Select Installation Type - Custom
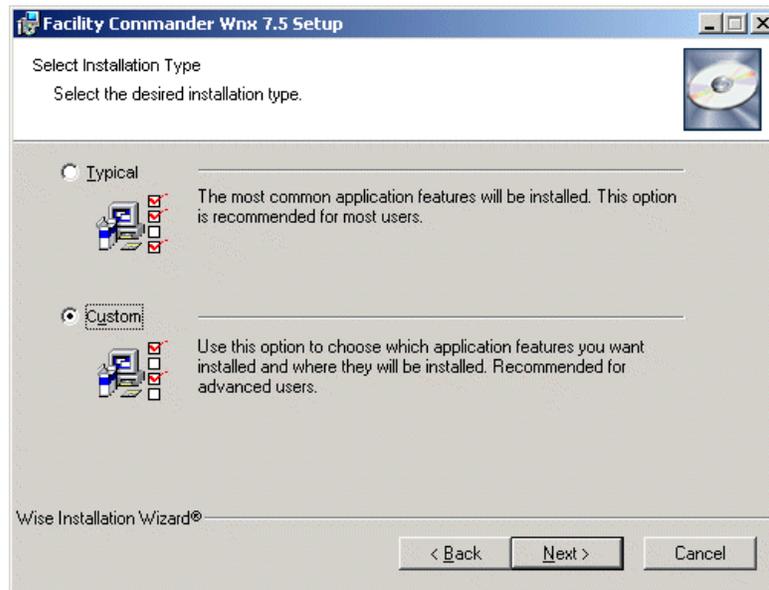
4. Click **Next**. The **FCWnx Enterprise Custom Configuration** window opens. Check *only* the check box for **FCWnx Client Application**, and then click **Next**.

Figure 34. FCWnx Enterprise Custom Configuration - FCWnx Client Application
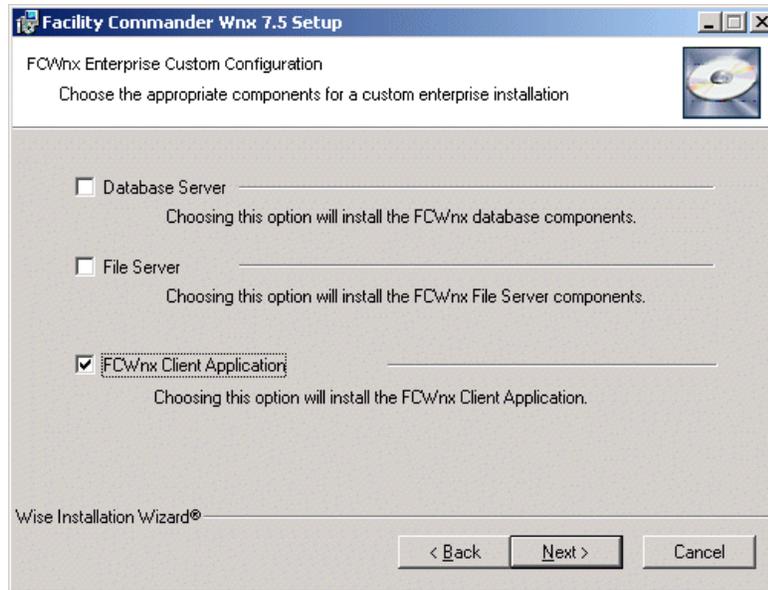
5. The **Database and File Server** window opens as shown in *Figure 35* on page 49.

   If the name displayed in **Database Server Name** is not appropriate, select the appropriate name from the drop-down list. If the name displayed in **File Server Name** is not appropriate, navigate to the File server computer for this client and select to display in the **File Server Name** dialog box.

Figure 35. Database and File Server Paths
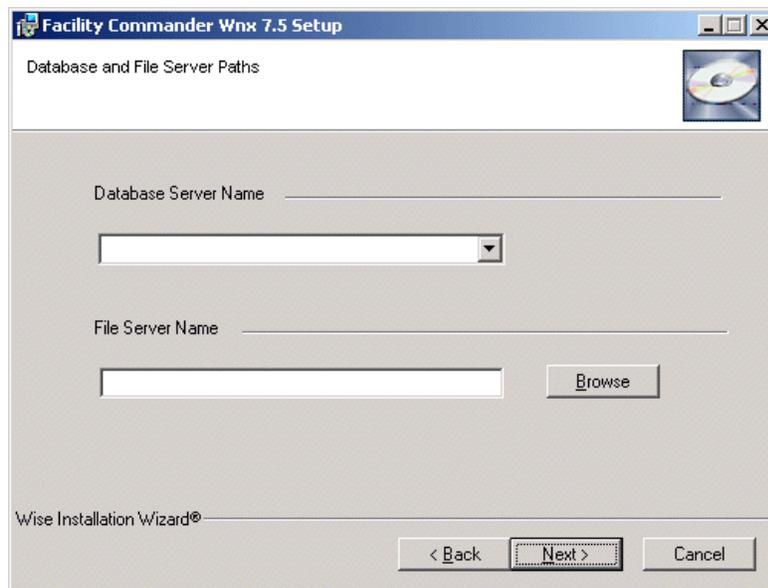
6. Click **Next**. The **Change the "Secure" password** window opens as shown in *Figure 36* on page 50.

The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

Figure 36. Change the "Secure" Password window

7. Click **Next.** The **Ready to Install the Application** window opens. The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

8. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

9. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

10. Continue with *Licensing your Facility Commander Wnx system* on page 81.

Table 10. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

3. Database server and FCWnx application configuration

Components	Computer 1	Computer 2	Computer 3
Database server	✔		
File server		✔	
FCWnx client application	✔		

Note: This configuration has the database server and the FCWnx client application installed on Computer 1, while the file server is installed on Computer 2.

Database server and FCWnx client application on first computer

1. On the **FCWnx Enterprise Custom Configuration** window, select **Database Server** and **FCWnx Client Application**.

Figure 37. FCWnx Enterprise Custom Configuration - Database Server and FCWnx Client Application
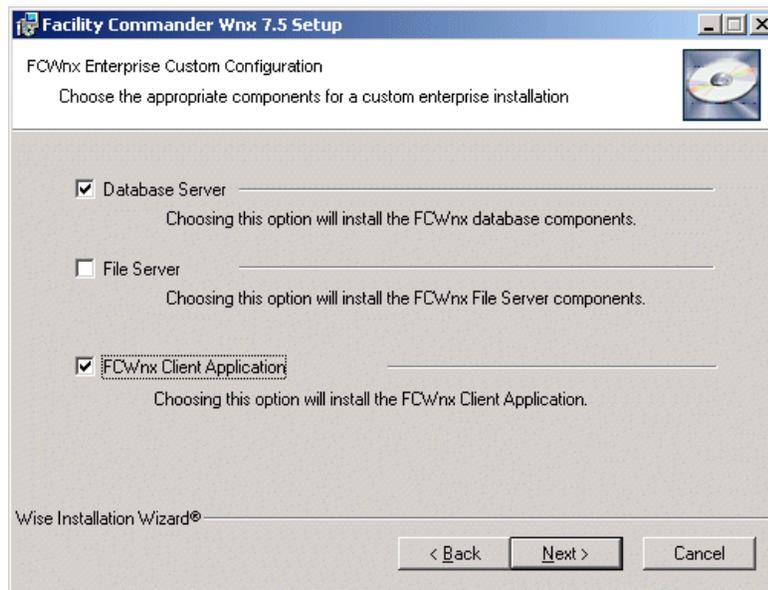
2. Click **Next**. The **Database and File Server Paths** window opens as shown in *Figure 38*.

   On the **Database and File Server Paths** window, the **Database Server Name** displays as read-only. It is unavailable for entry. (If there is more than one Server with SPSQL, the Database Server Name field is enabled. Select the appropriate Server name.)

   Click **Browse** to navigate to another computer that will serve as **File Server** for your system, and then select that computer to display the computer name in this dialog box.

   Note: You must install **File Server** on the selected file server in your Facility Commander Wnx system before attempting to license any FCWnx application.

Figure 38. File Server Name Required
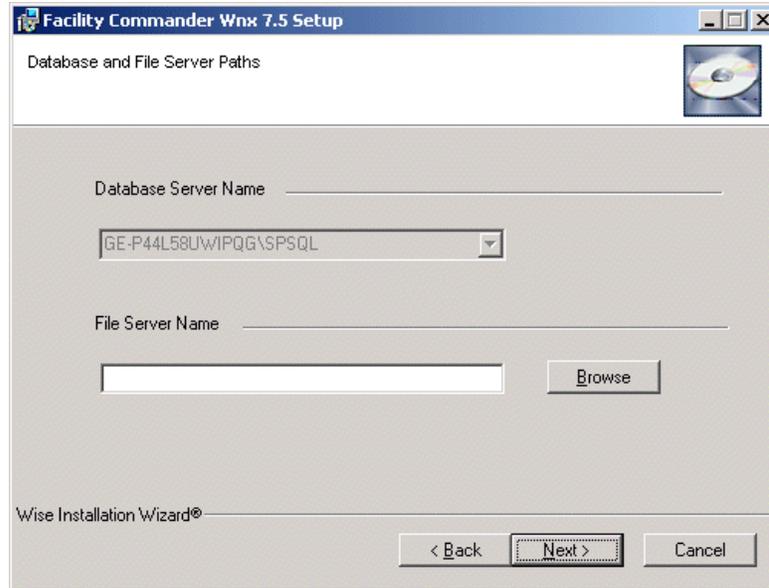
3. Click **Next.** The **Select Credential Aliasing Option** window opens, as shown in *Figure 39* on page 52.

Figure 39. Credential Aliasing window
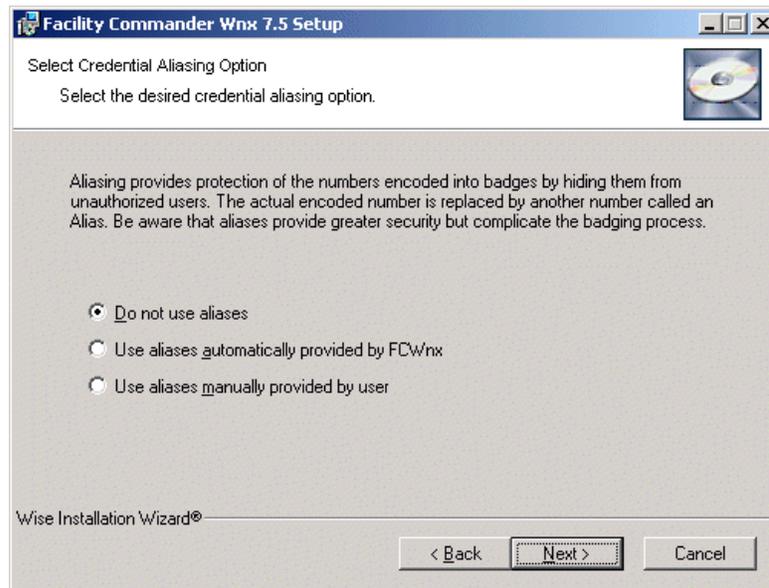
4. This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is only displayed to authorized users.

   • **Do not use aliases** indicates no aliasing will be used.
   • **Use aliases automatically provided by FCWnx** assigns the credential number for you.
   • **Use aliases manually provided by user** aliasing allows you to assign the number.

5. Choose one aliasing option, and then click **Next**. The **Change the 'secure' password** window opens, as shown in *Figure 40* on page 53.

Figure 40. Change the 'secure' Password window

6. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster 08** (case sensitive). 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.)

7. Click **Next.** The **Ready to Install the Application** window opens. Enter the SQL Server password for the 'sa' user. (This password was previously created during installation of SQL. Refer to *Installing Microsoft SQL Server* on page 13.

   The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

8. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

9. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **Select Facility Commander Wnx Edition** window opens.

To select a Facility Commander Wnx edition:

1. From the drop-down list of Facility Commander Wnx editions, select **Enterprise Edition,** as displayed in *Figure 41* on page 54.

Figure 41. Select FCWnx Edition
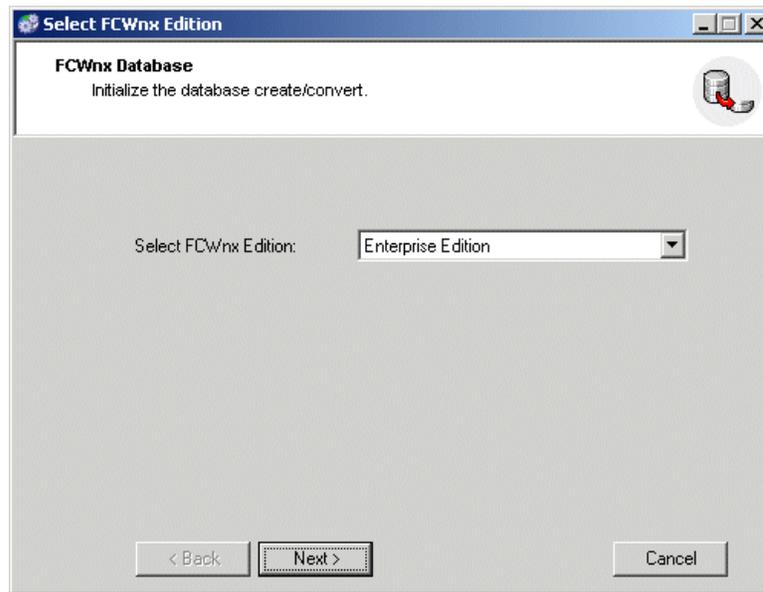
2. Click **Next**.

To create a database:

1. The **Create/Convert Database** window opens as shown in *Figure 42* on page 55.

   Note: We recommend that you *do not* select **Cancel** in this window. However, if you must exit at this time and plan to create you database at another time, refer to *Create FCWnx Database* on page 128 to complete a database creation outside of the installation sequence, from the Run menu.

2. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.)

   Note: If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

Figure 42. Create/Convert Database window
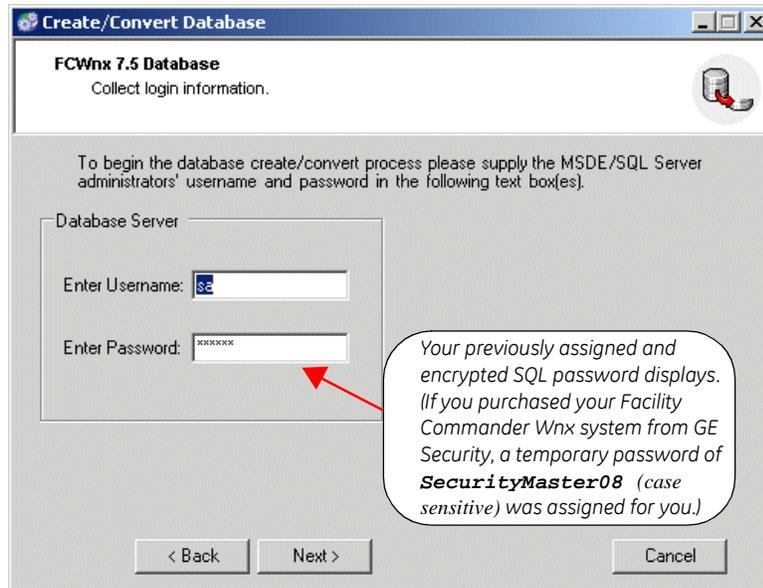
3. Click **Next** to continue. The **Database Directory Information** window opens, as shown in *Figure 43* on page 56.

The default directories are indicated. Each Facility Commander Wnx 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.
- **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 43. FCWnx Database window

4. Review the **Database Directory Information**. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.

> ⚠ WARNING: 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.

5. When the database creation is complete, a message displays informing you that the database was successfully created/converted.

   Note: A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder. The Integrity utility runs automatically, following a database creation. No user interaction is required. Refer to your Facility Commander Wnx Online Help for addition information about the Integrity utility.

6. The License Setup window opens. You cannot licence your system at this time. Click **Cancel** to exit **License Setup**.

After creating your database:

1. Click **Yes** to restart your system at this time. After the restart, log on as administrator.

2. Continue with configuration of the file server on a second Windows 2003 or Windows 2008 Standard server computer.

File server on second computer

Now, you must select and install *only* the file server component on a separate Windows 2003 or Windows 2008 Standard server computer:

Note: Prerequisite: Database server and FCWnx application installation already complete. If you do not install the file server at this time, you will not be able to license your system.

1. Verify that the computer you are configuring meets minimum requirements.

2. Install the operating system. *Do not* install Microsoft SQL.

3. You *must* log on to the computer as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging onto a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

4. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

5. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

   A series of windows open as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

   • .NET Framework
   • MDAC
   • Windows Installer

   Installing non-English operating systems:

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

   • .NET Framework
   • MDAC

   A popup message opens, 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 Facility Commander Wnx until this is accomplished.

6. The following components cause the system to restart when a new version is installed:

   • .NET Framework
   • MDAC
   • Windows Installer

   If your computer restarts, log on as administrator and installation continues. Please wait.

7. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the Welcome window opens. Continue with

Facility Commander Wnx software installation begins

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. Click **Next**.

2. When the **License Agreement** window opens, select **I accept the license agreement**, and then click **Next**.

3. Select the type of installation as **Custom**, and then click **Next**. The **Custom Configuration** window opens as shown in *Figure 44* on page 58.

Figure 44. FCWnx Enterprise Custom Configuration - File server
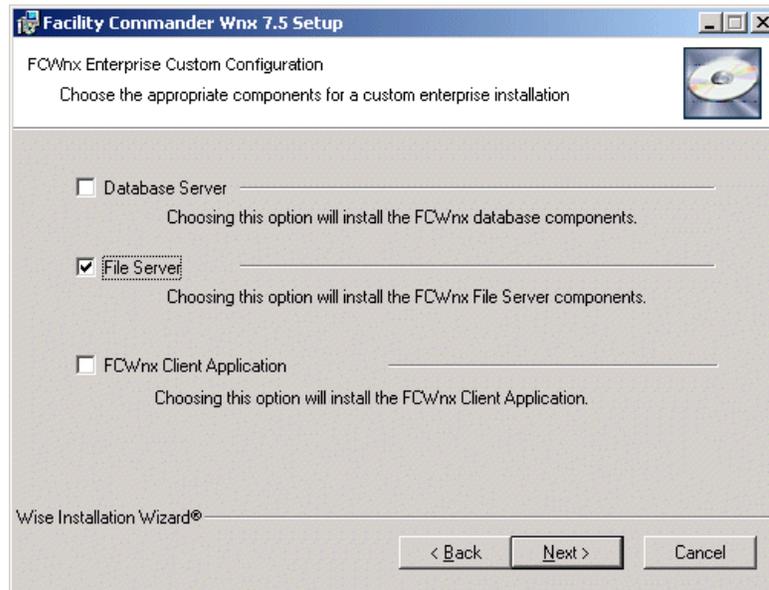
4. Select only **File Server**, and then click **Next**. The **Change the 'secure' password** window opens, as shown in *Figure 45* on page 59.

    The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.

Figure 45. Change the 'secure' Password window

5. 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 opens. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

7. Click **Next** to continue. Facility Commander Wnx copies system files and updates the system configuration. This may take a few minutes.

8. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**.

9. You will need to license at this time. Continue with *Licensing your Facility Commander Wnx system* on page 81.

Table 11. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

4. Database server configuration

Components	Computer 1	Computer 2	Computer 3
Database server	✔		
File server		✔	
FCWnx client application		✔	

Note: This configuration has the database server installed on Computer 1, then the file server and the FCWnx client application are installed on Computer 2.

Database server on first computer

1. On the **FCWnx Enterprise Custom Configuration** window, select **Database Server**. Click **Next**.

Figure 46. FCWnx Enterprise Custom Configuration - Database Server
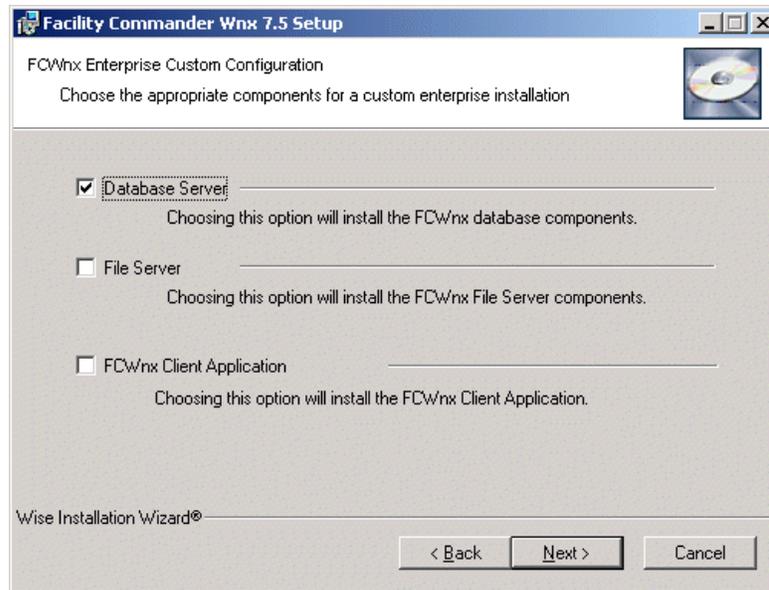
2. The **Database and File Server** window opens as shown in .

   On the **Database and File Server Paths** window, the **Database Server Name** opens as read-only. It is unavailable for entry.

   Enter the computer name or click **Browse** to navigate to the **File server computer** for your system, and then select the computer to display the name in this field.

   Note: You must install the **File Server** component on the selected file server in your Facility Commander Wnx system before attempting to license any FCWnx application.

Figure 47. File Server Name Required
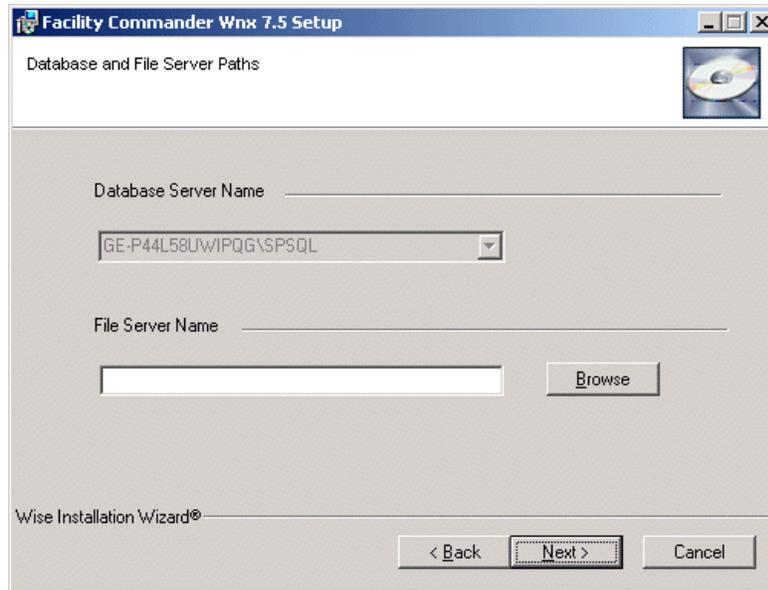
3. Click **Next.** The **Select Credential Aliasing Option** window opens, as shown in *Figure 48* on page 61.

   This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is only displayed to authorized users.

   - **Do not use aliases** indicates no aliasing will be used.
   - **Use aliases automatically provided by FCWnx** assigns the credential number for you.
   - **Use aliases manually provided by user** aliasing allows you to assign the number.

Figure 48. Credential Aliasing window
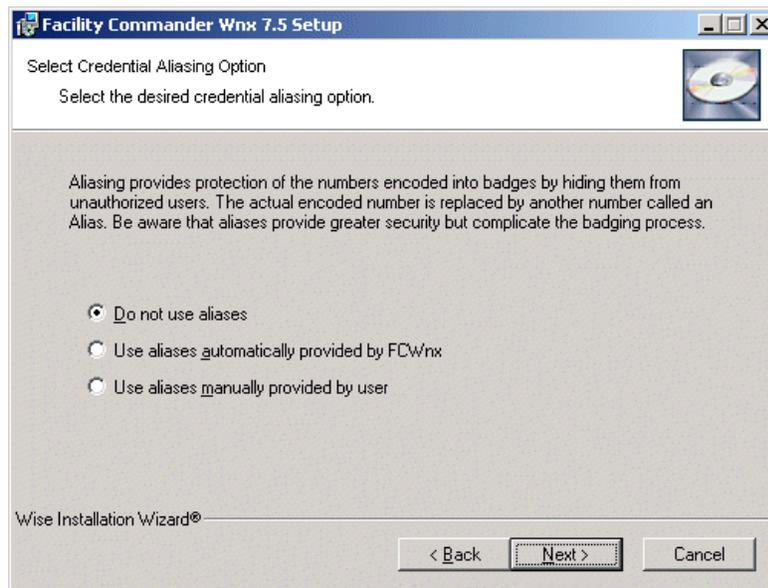
4. Choose one aliasing option, and then click **Next**. The **Change the 'secure' password** window opens, as shown in *Figure 49* on page 62.

Figure 49. Change the 'secure' Password window

5. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

6. Click **Next.** The **Ready to Install the Application** window opens. Enter the SQL Server password for the 'sa' user. (This password was previously created during installation of SQL. Refer to *Installing Microsoft SQL Server* on page 13.

   The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

7. Click **Next** to continue. Facility Commander Wnx copies system files and updates the system configuration. This may take a few minutes.

8. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**.

9. Remove the installation disc from the CD/DVD drive. The **Select Facility Commander Wnx Edition** window opens.

To select a Facility Commander Wnx edition:

1. From the drop-down list of Facility Commander Wnx editions, select **Enterprise Edition**, as shown in *Figure 50* on page 63.

Figure 50. Select FCWnx Edition
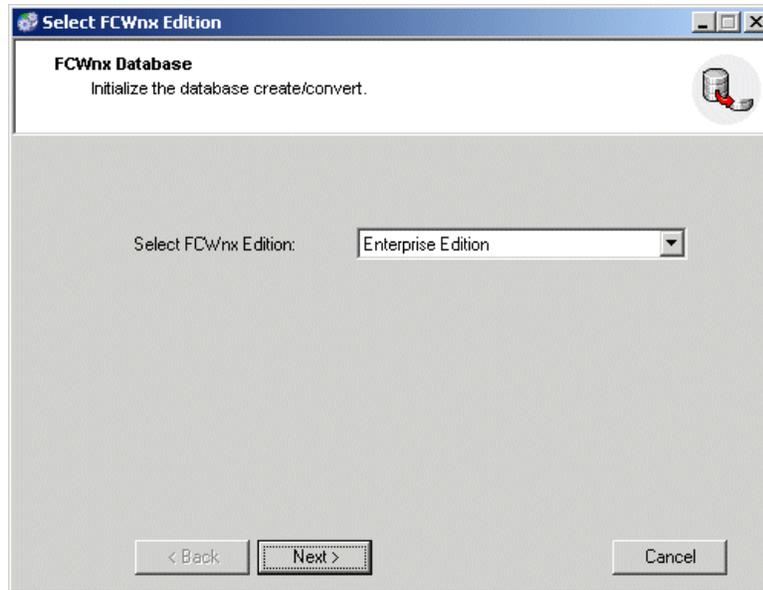
2. Click **Next**.

To create a database:

1. The **Create/Convert Database** window opens, as shown in *Figure 51*.

   Note: We recommend that you *do not* select **Cancel** in this window. However, if you must exit at this time and plan to create you database at another time, refer to *Create FCWnx Database* on page 128 to complete a database creation outside of the installation sequence, from the Run menu.

Figure 51. Create/Convert Database window
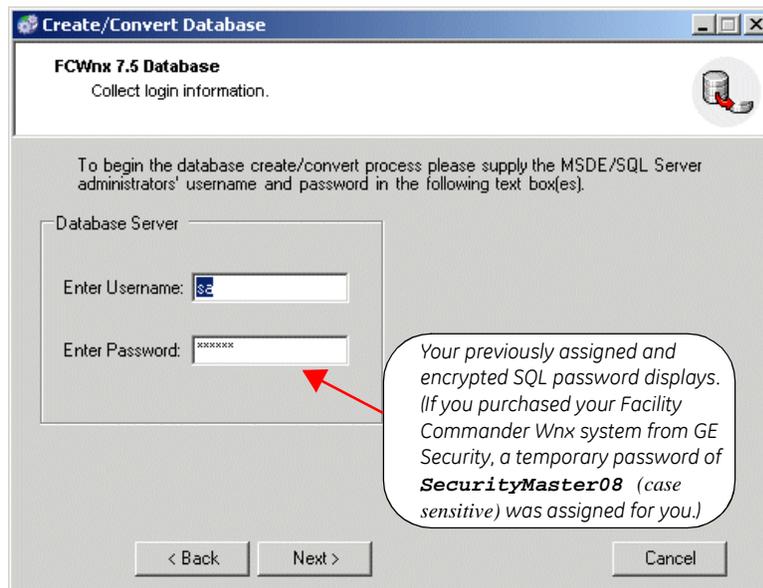
*Your previously assigned and encrypted SQL password displays. (If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.)*

2. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.)

    Note: If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

3. Click **Next** to continue. The **Database Directory Information** window opens, as shown in *Figure 52* on page 64.

    The default directories are indicated. Each Facility Commander Wnx 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.
    *   **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 52. FCWnx Database window

4. Review the **Database Directory Information**. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.

⚠ **WARNING:** 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.

5. When the database creation is complete, a message displays informing you that the database was successfully created/converted.

> **Note:** A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder. The Integrity utility runs automatically, following a database creation. No user interaction is required. Refer to your Facility Commander Wnx Online Help for addition information about the Integrity utility.

6. Click **OK**.

File server and FCWnx client application on second computer

After creating your database, you are ready and must install file server and FCWnx client application on a separate Windows 2003 or Windows 2008 Standard server computer:

Note: Prerequisite: Database server installation already complete.

1. Verify that the computer you are configuring meets minimum requirements.

2. Install the operating system. *Do not* install Microsoft SQL.

3. You *must* log on to the computer as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging onto a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

4. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

5. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

6. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

    A series of windows open as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

    - .NET Framework
    - MDAC
    - Windows Installer
    - SQL Server

    Installing non-English operating systems:

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

    - .NET Framework
    - MDAC

    A popup message opens, 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 Facility Commander Wnx until this is accomplished.

7. The following components cause the system to restart when a new version is installed:

- • .NET Framework
- • MDAC
- • Windows Installer
- • SQL Server

If your computer restarts, log on as administrator and installation continues. Please wait.

8. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins. The Welcome window opens. Continue with *The Facility Commander Wnx software installation begins*.

The Facility Commander Wnx software installation begins

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. **Click Next.**

2. When the **License Agreement** window opens, select **I accept the license agreement**, and then click **Next**.

3. When the **Select Installation Type** window opens, as shown in *Figure 53*, select the type of installation as **Custom,** and then click **Next**.

Figure 53. Selection Installation Type - Custom
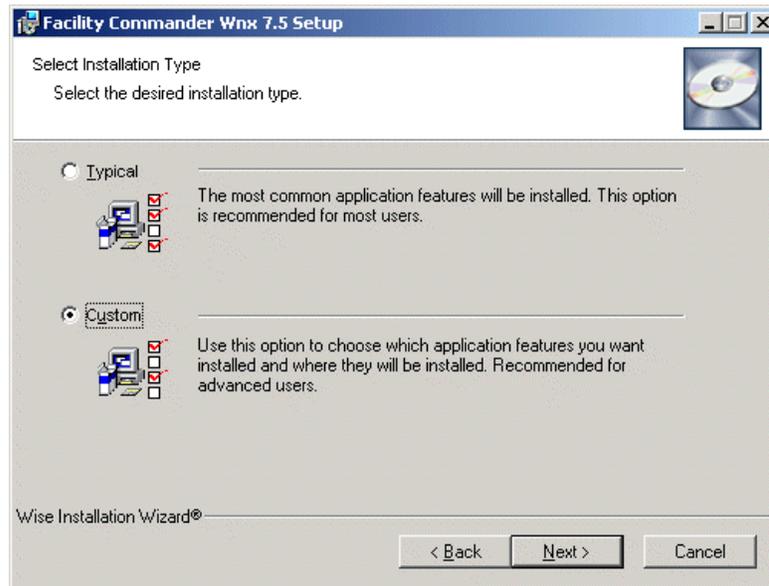
4. On the **FCWnx Enterprise Custom Configuration** window, select **File Server** and **FCWnx Client Application**.

Figure 54. FCWnx Enterprise Custom Configuration - File Server and FCWnx Client Application
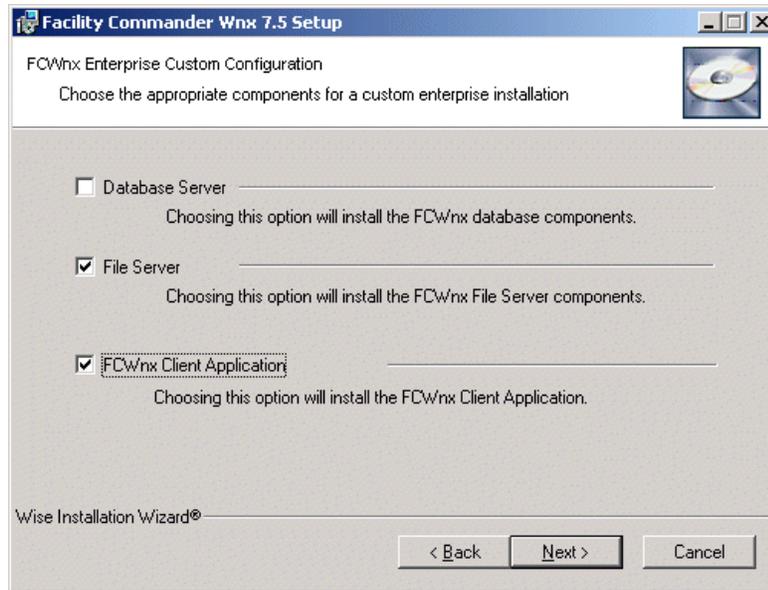
5. Click **Next**. The **Database and File Server Paths** window opens as shown in *Figure 55*.

The **Database Server Name** field is available and required. Select a Server Name from the drop-down list of eligible SQL Servers for this installation.

The **File Server Name** is a read-only field and is unavailable for selection.

Figure 55. Database Server Name Required
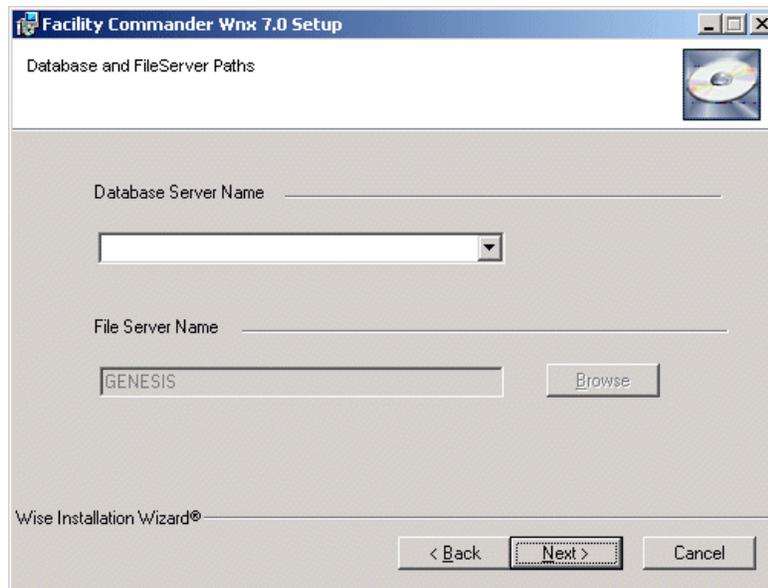
6. Click **Next.** The **Change the 'secure' password** window opens, as shown in *Figure 56* on page 68.

Figure 56. Change the 'secure' Password window

7. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

8. Click **Next** to continue. The **Ready to Install the Application** window opens.

    The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

9. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

10. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

11. Continue with

Table 12. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

5. Each component on a separate computer

Components	Computer 1	Computer 2	Computer 3
Database server	✔		
File server		✔	
FCWnx client application			✔

Note: This configuration has the database server installed on Computer 1, the file server installed on Computer 2, and the FCWnx client application installed on Computer 3.

Database server on first computer

To install each Facility Commander Wnx component to a separate computer, you must begin with the database server installation on the first computer.

1. On the **FCWnx Enterprise Custom Configuration** window, check the check box for *only* **Database Server**.

Figure 57. FCWnx Enterprise Custom Configuration - Database Server
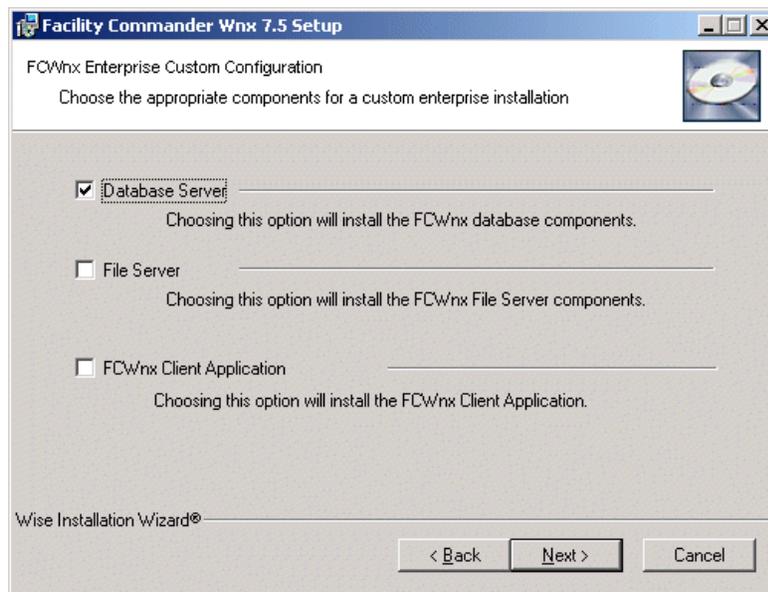
2. Click **Next**. The **Database and FileServer Paths** window opens as shown in *Figure 58*.

At the **Database and FileServer Paths** window, the **Database Server Name** displays as read-only. It is unavailable for entry.

Click **Browse** to navigate to the **File server computer** you will be using for your system, and then select the computer name to display the computer name in this dialog box.

Note: You must install file server on the selected file server in your Facility Commander Wnx system before attempting to license any Facility Commander Wnx application.

Figure 58. File Server Name Required
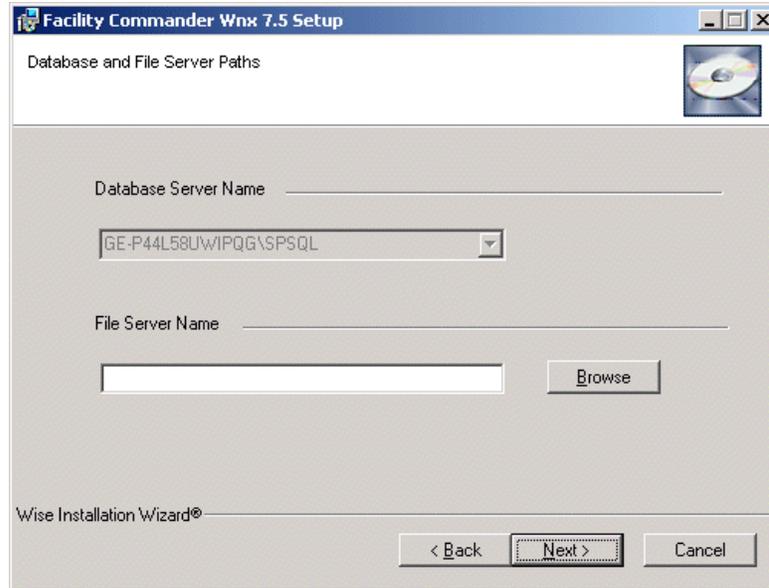
3. Click **Next**. The **Select Credential Aliasing Option** window opens, as shown in *Figure 59* on page 70.

   This feature allows you to assign a credential number that represents the encoded credential number. This provides added security in that the encoded number is only displayed to authorized users.

   - **Do not use aliases** indicates no aliasing will be used.
   - **Use aliases automatically provided by FCWnx** assigns the credential number for you.
   - **Use aliases manually provided by user** aliasing allows you to assign the number.

Figure 59. Credential Aliasing window
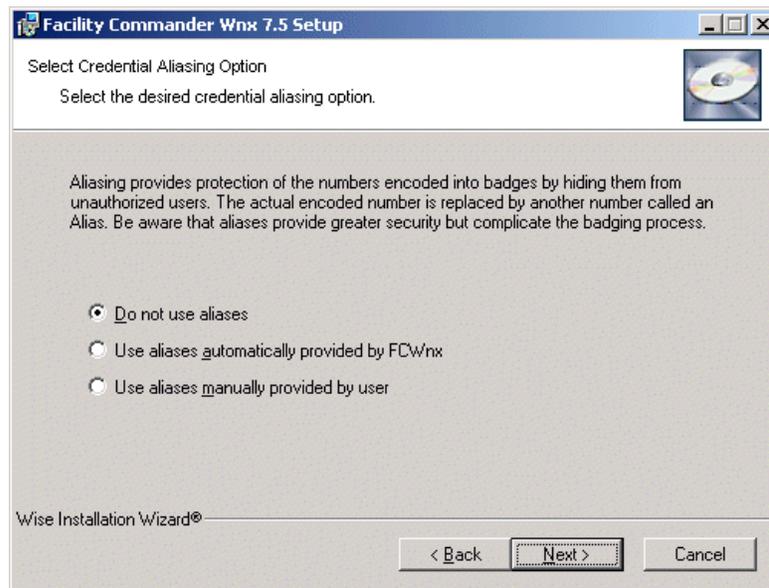
4. Choose one aliasing option, and then click **Next**. The **Change the 'secure' password** window opens, as shown in *Figure 60* on page 71.

Figure 60. Change the 'secure' Password window

5. The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster08** (case sensitive). 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.)

6. Click **Next** to continue. The **Ready to Install the Application** window opens.

   The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

7. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

8. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

To select a Facility Commander Wnx Edition:

1. From the drop-down list of Facility Commander Wnx editions, select **Enterprise Edition, as displayed in** *Figure 61* on page 72.

Figure 61. Select FCWnx Edition
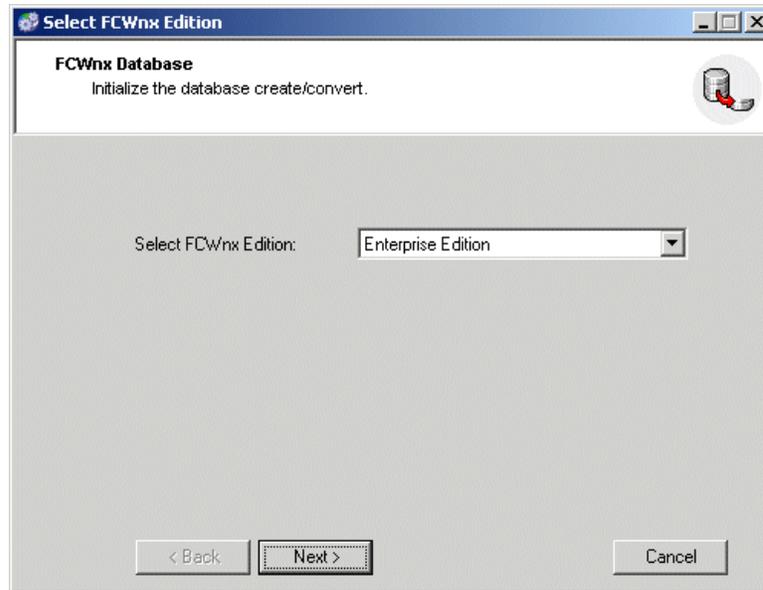
2. Click **Next**.

To create a database:

1. The **Create/Convert Database** window opens, as shown in *Figure 62* on page 72.

> **Note:**   We recommend that you *do not* select **Cancel** in this window. However, if you must exit at this time and plan to create you database at another time, refer to *Create FCWnx Database* on page 128 to complete a database creation outside of the installation sequence, from the Run menu.

Figure 62. Create/Convert Database window
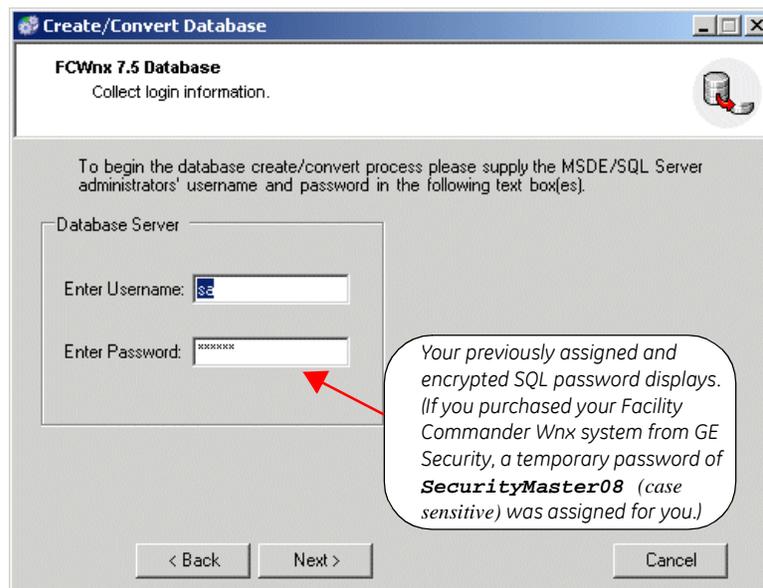
Your previously assigned and encrypted SQL password displays. (If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** *(case sensitive) was assigned for you.)*

2. Enter the SQL Server password for the 'sa' user. (This password was created during installation of Microsoft SQL. Refer to *Installing Microsoft SQL Server* on page 13.)

    Note: If you purchased your Facility Commander Wnx system from GE Security, a temporary password of **SecurityMaster08** (case sensitive) was assigned for you.

3. Click **Next** to continue. The **Database Directory Information** window opens, as shown in *Figure 63* on page 73.

    The default directories are indicated. Each Facility Commander Wnx 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.

    •   **Log File Directory:** The **Log File Directory** field displays the default directory. Accept the default 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 Facility Commander Wnx logs.

Figure 63. FCWnx Database window
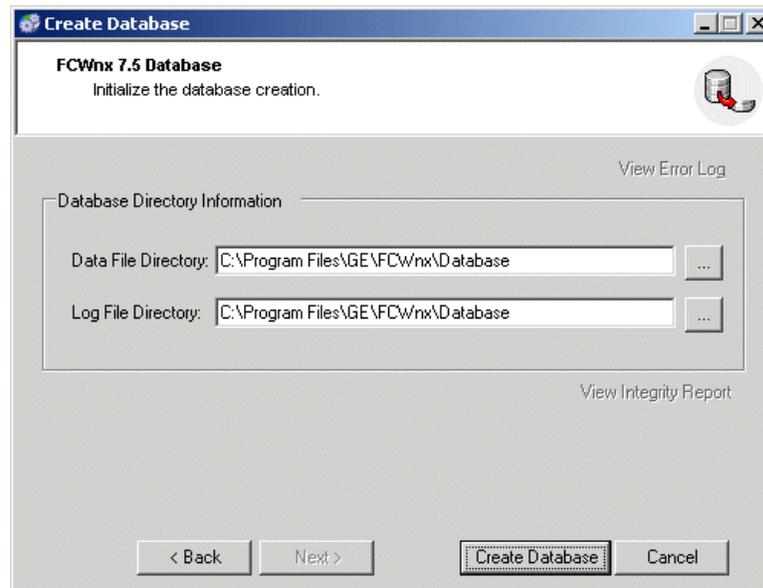
4. Review the **Database Directory Information**. If acceptable, click **Create Database**. The database creation begins and a progress bar is displayed. This may take a few minutes.

⚠ **WARNING:**   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.

5. When the database creation is complete, a message displays informing you that the database was successfully created/converted. Click **OK**. The dialog box closes.

> **Note:** A log file is created when the Create Database program is run. The log file, called 'SPCreateDB.txt' is found in the Logs folder. The Integrity utility runs automatically, following a database creation. No user interaction is required. Refer to your Facility Commander Wnx Online Help for addition information about the Integrity utility.

File server on second computer

Now, you must select and install *only* the file server component on a separate Windows 2003 or Windows 2008 Standard server computer:

> **Note:** Prerequisite: Database server and FCWnx application installation already complete. If you do not install the file server at this time, you will not be able to license your system.

1. Verify that the computer you are configuring meets minimum requirements.

2. Install the operating system. *Do not* install Microsoft SQL.

3. You *must* log on to the computer as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging onto a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

4. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

5. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

6. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

   A series of windows open as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

   - .NET Framework
   - MDAC
   - Windows Installer
   - SQL Server

   Installing non-English operating systems:

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

   - .NET Framework
   - MDAC

   A popup message opens, 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 Facility Commander Wnx until this is accomplished.

7. The following components cause the system to restart when a new version is installed:

   - .NET Framework
   - MDAC
   - Windows Installer
   - SQL Server

   If your computer restarts, log on as administrator and installation continues.

8. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the Welcome window opens. Continue with *The Facility Commander Wnx software installation begins:* on page 75.

The Facility Commander Wnx software installation begins:

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. Click **Next.**

2. When the **License Agreement** window opens, select **I accept the license agreement**, and then click **Next**. The **Select Installation Type** window opens as shown in *Figure 64*.

Figure 64. Select Installation Type - Custom
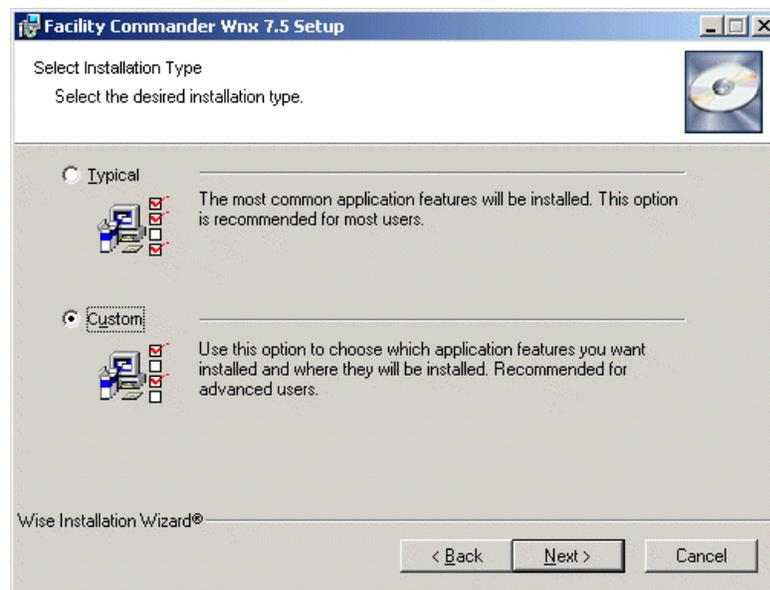
3. Select the type of installation as **Custom**. Click **Next**.

4. On the **FCWnx Enterprise Custom Configuration** window, check the check box for *only* **File Server**.

Figure 65. FCWnx Enterprise Custom Configuration - File Server
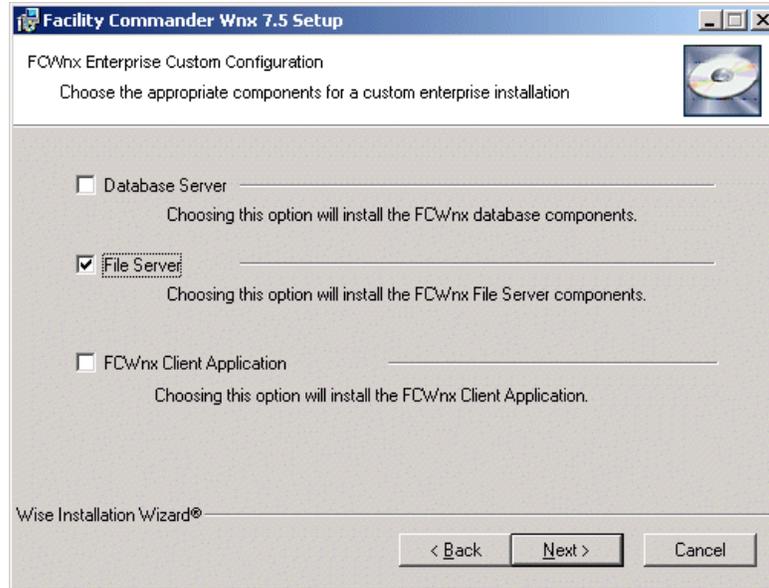
5. Click **Next**. The **Change the 'secure' password** window opens, as shown in *Figure 66*.

    The Facility Commander Wnx installation creates a new Windows User ID called **secure**. By default, the password is **SecurityMaster** (case sensitive). 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.)

Figure 66. Change the 'secure' Password window

6. Click **Next.** The **Ready to Install the Application** window opens. The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

7. Click **Next** to continue. Facility Commander Wnx copies system files and updates the system configuration. This may take a few minutes.

8. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**.

9. Remove the Facility Commander Wnx installation disc from the CD/DVD drive.

10. Now, install *only* the FCWnx client application on a third computer.

FCWnx client application on third computer

Windows XP Professional or Windows Vista operating system:

Note: Prerequisite: Database server installation and file server installation already complete. Continue with instructions as listed in *Chapter 6, Installing Facility Commander Wnx Software on additional clients* on page 109.

Windows 2003 or Windows 2008 Server operating system:

Note: Prerequisite: Database server installation and file server installation already complete.

1. Verify that the computer you are configuring meets minimum requirements.

2. If not already done, install the Windows 2003 or Windows 2008 operating system, but *do not* install Microsoft SQL.

3. You *must* be logged in as the local administrator user. If not, log off and log back on as a user with these permissions. If you are logging onto a domain environment, log off and log on as administrator to the local computer. (If the computer is a domain controller, log on as an administrator to the domain.)

4. Insert the **Facility Commander Wnx** installation disc into the CD/DVD drive.

5. When the **AutoPlay** window opens, click **Run SETUP.EXE**.

6. When Facility Commander Wnx starts, click **Install**. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

   A series of windows open as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

   • .NET Framework
   • MDAC
   • Windows Installer
   • SQL Server

   Installing non-English operating systems:

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

   • .NET Framework
   • MDAC

   A popup message opens, 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 Facility Commander Wnx until this is accomplished.

7. The following components cause the system to restart when a new version is installed:

   • .NET Framework
   • MDAC
   • Windows Installer
   • SQL Server

   If your computer restarts, log on as administrator and installation continues.

8. The Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the Welcome window opens. Continue with *The Facility Commander Wnx software installation begins:* on page 78.

The Facility Commander Wnx software installation begins:

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The **Facility Commander Wnx Welcome** window opens. Click **Next**.

2. When the **License Agreement** window opens, select **I accept the license agreement**, and then click **Next**.

3. When the **Select Installation Type** window opens, as shown in *Figure 67*, select the type of installation as **Custom**.

Figure 67. Select Installation Type - Custom
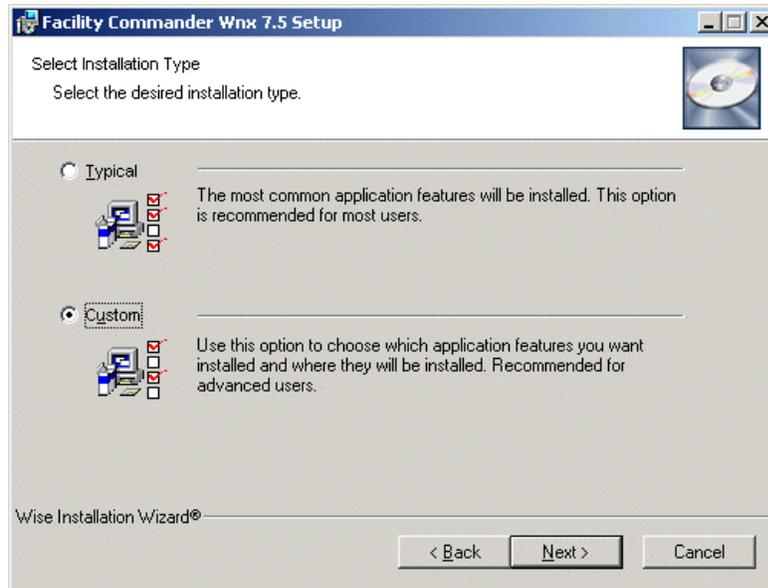
4. Click **Next**.

5. On the **FCWnx Enterprise Custom Configuration** window, check the check box for *only* **FCWnx Client Application**, and then click **Next**.

Figure 68. FCWnx Enterprise Custom Configuration - FCWnx Client Application
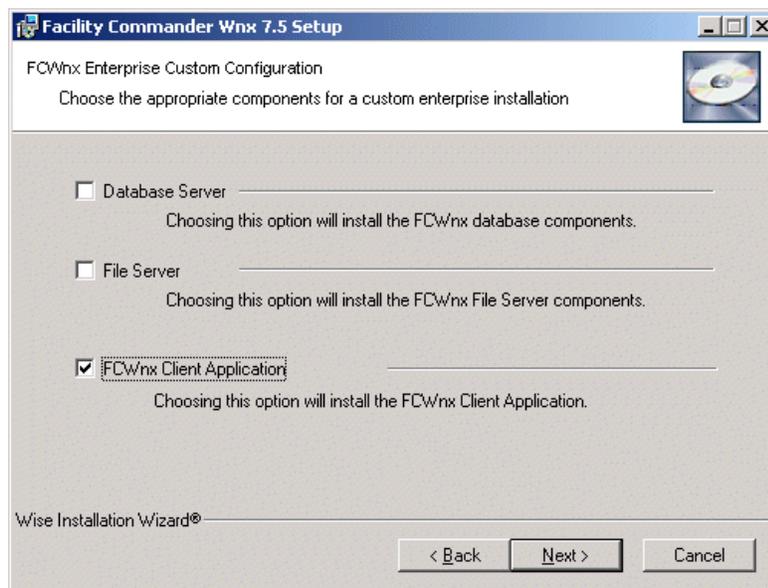
6. Click **Next**. The **Database and File Server** window opens as shown in *Figure 69* on page 80.

If the name displayed in **Database Server Name** is not correct, select the appropriate name from the drop-down list. If the name displayed in **File Server Name** is not appropriate, navigate to the File server computer for this client and select to display in the **File Server Name** dialog box.

Figure 69. Database and File Server Paths
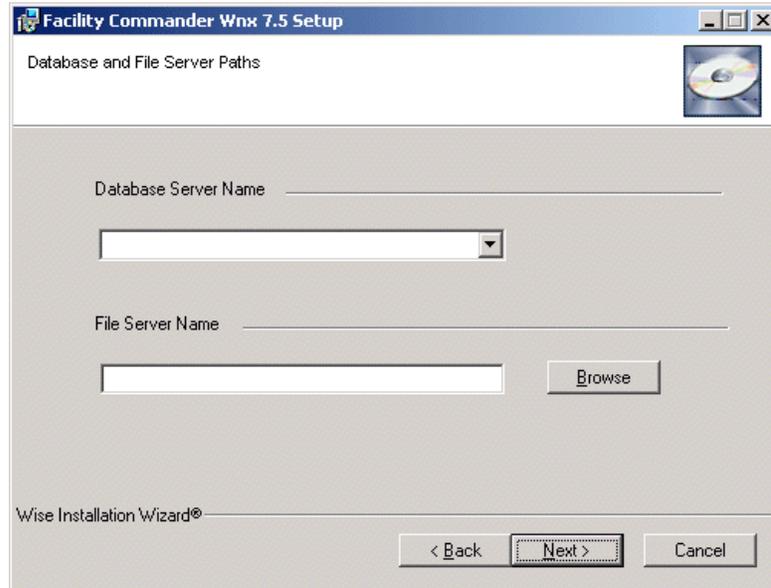
7. Click **Next**. The **Change the 'secure' Password** window opens. Select one of the following**:**

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

8. Click **Next.** The **Ready to Install the Application** window opens. The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

9. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

10. When the **Facility Commander Wnx has been successfully installed** window opens, click **Finish**. The **FCWnx License Setup** window opens.

11. Continue with

Table 13. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!					

Licensing your Facility Commander Wnx system

We recommend that you license your system at this time. The reminder to license is placed at this point to maintain the proper sequence in completing your installation.

Refer to *Chapter 4, License and configure security settings for your FCWnx system* on page 91. After obtaining your registered license key as instructed follow one of the sequences listed:

- *First time license* on page 93
- *Running in demo mode* on page 94
- *Second and any additional client licenses* on page 94
- *If you do not license during the Facility Commander Wnx installation sequence* on page 96

Note: When you have completed a successful licensing sequence, return to this point and continue.

After a successful licensing sequence or if you click Cancel to license at another time, continue with *Configuring security settings* on page 81.

Table 14. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
		You are here!				

Configuring security settings

The Security Configuration utility launches immediately following the License Setup and assists you in configuring firewall and DCOM settings on your computer. Check with your IT department for company-specific network settings.

Refer to *SecurityCnfg Utility* on page 99 for more details on using this utility.

After successfully configuring the security settings:

1. You may receive an **Facility Commander Wnx Installation Complete** dialog box. If so, click **Yes** to restart your computer.

2. Log on as administrator and continue with *Setting services to automatic startup* on page 82.

Table 15. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
			You are here!			

Setting services to automatic startup

Note: At this point in the installation, the Facility Commander Wnx services are stopped.

Now, you need to change the startup method of the **FCWnx Diagnostics, FCWnx Manager, FCWnx System Manager, and FCWnx WebService** services to automatic. This means every time the computer starts, the Facility Commander Wnx services start. Refer to *Facility Commander Wnx services overview* on page 126, for additional information about Facility Commander Wnx Services.

To set the startup method of Facility Commander Wnx Services:

1. Click **Start** and then click **Control Panel.**

   Category view: Click **Performance Maintenance**, **Administrative Tools**, and then click **Services**.

   Classic view: Click **Administrative Tools**, and then click **Services**.

2. The **Services** window opens. Expand the list of services and scroll down.

3. Select **FCWnx Diagnostics.**

Figure 70. Facility Commander Wnx component services
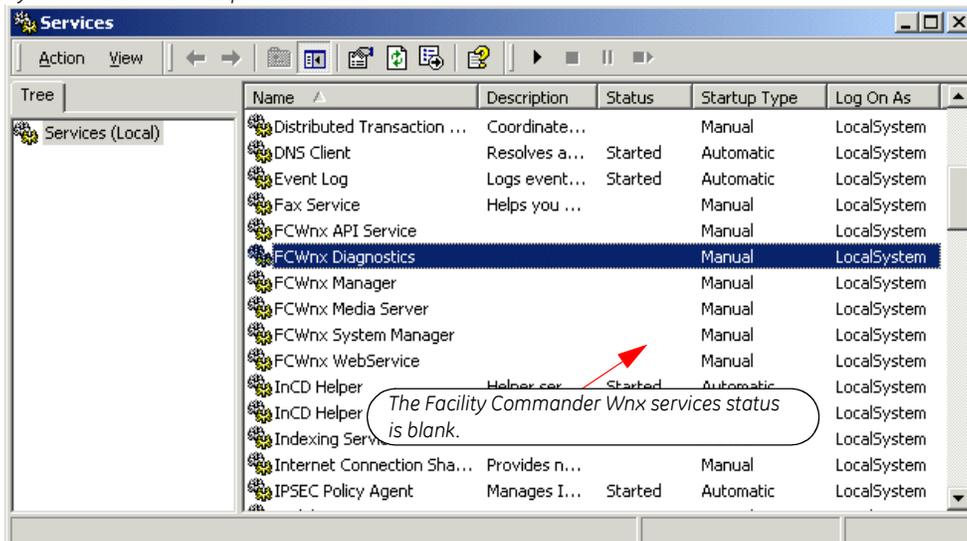
4. The status will be either **Started** or blank. If it is blank, then the service is not running.

5. Right-click and select **Properties**. In the **Startup type** field, select **Automatic**.

6. Click **Apply,** then **OK** to close the window.

7. Repeat steps 3 through 6 for the following services:
   - FCWnx Manager
   - FCWnx Media Server
   - FCWnx System Manager
   - FCWnx WebService

   Note: **FCWnx API Service** is used when an external system is sending or receiving transactions by way of an Application Program Interface (API) to Facility Commander Wnx.

8. When all services are configured, close all windows and applications.

9. Restart the Facility Commander Wnx server computer.

10. Continue with *Server folder structure* on page 83.

Server folder structure

During installation of the Facility Commander Wnx software, the folders shown in *Figure 71* and listed in *Table 16* are created. The folders displayed in your FCWnx folder (the default is `Program Files\GE\FCWnx`) vary with the type of installation:

If **Typical Server Type** is selected, all folders are present.

If **Custom Server Type** is installed and only the:

- **Database server** feature is installed, the following folders are present:

  - Database
  - gmcNls
  - Logs
  - SecureScripts
  - vmcNls

- **File server** feature is installed, the following folders are present:

  - Client
  - Designs
  - Externals
  - Firmware
  - gmcNls
  - Graphics
  - Images
  - Logs
  - Signature
  - Video
  - vmcNls

- **FCWnx client application** is installed, the following folders are present:

  - Client
  - Config
  - English
  - gmcNls
  - GraphicsCache
  - jre
  - Logs
  - Rpt
  - UserManuals
  - VideoSubsystem
  - Vmc
  - Vmcnls

Some of the folders are shared. (Refer to the example in *Figure 71*.) This allows other computers to gain access to the information stored in these folders, when logged in as an authorized user.

Figure 71. Typical server folder structure

The hand graphic indicates that the folders are shared.
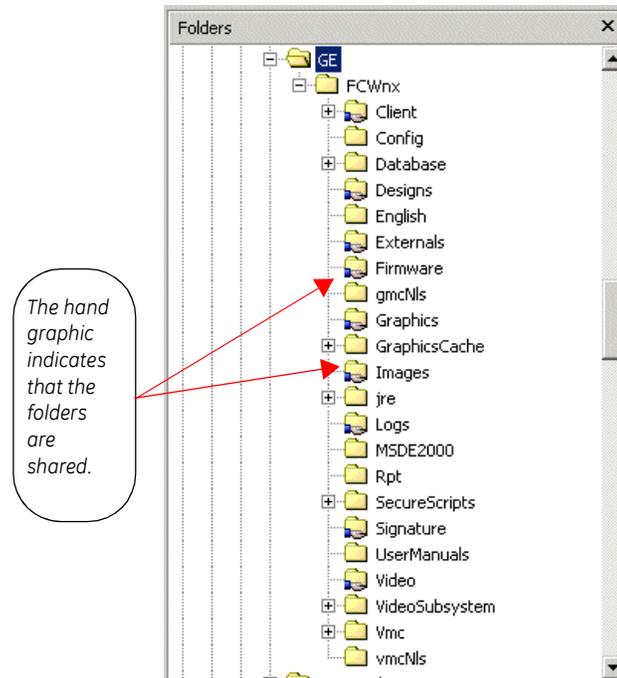
To learn more about the folders in your Facility Commander Wnx directory, review these descriptions:

Table 16. Server folder descriptions

Folder	Description
Client	A shared folder that contains a self-extracting Microsoft utility, Microsoft Component Checker. This tool checks for compatibility and consistency of MDAC versions.This folder also contain an MSDEAdmin utility, used to access the Facility Commander Wnx databases.
Config	A folder that contains website configurations for the FCWnx Web Service. The FCWnx Web Service is used by VMC to communicate with FCWnx.
Database	A folder that contains the system database file along with the archive and history database files. SQL Server log files for each database are also found in this folder.
Designs	A shared folder that contains all credential designs used by the imaging stations and sample credential designs.
English	The files required to display the Facility Commander Wnx client software in English. As more languages are installed, more language-specific folders display.
Externals	A shared empty folder created to store reports created by third party report generators.
Firmware	A shared folder that contains the firmware or application code needed to flash the controllers.
gmcNls	A folder that contains the language support files for the Graphics Monitoring and Control (GMC) application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.
Graphics	A shared folder that contains maps and icons used for GMC.

Table 16. Server folder descriptions (continued)

Folder	Description
GraphicsCache	A folder that contains the working data files for the GMC application.
Images	A shared folder that contains graphics files of captured, credential holder pictures. Sample images are included if you installed the sample database.
jre	A folder that contains the Java Runtime Environment used by the GMC and the Video Management Console (VMC).
Logs	A shared folder that contains the Facility Commander Wnx diagnostic log files.
Rpt	A folder that contains files used by the report engine to create Facility Commander Wnx reports.
SecureScripts	The scripts and programs used to create the database in SQL Server. It also contains subfolders required for converting and upgrading Diamond I, Diamond II, Sapphire Pro, and Secure Perfect systems to Facility Commander Wnx.
Signature	A shared folder that contains a sample graphical signature file and the graphic files of captured signatures.
UserManuals	A folder that contains the FCWnx and GMC User Manuals in pdf format.
Video	A shared folder that contains captured video files.
VideoSubsystem	A folder that contains the dlls that enable communication between FCWnx and VMC.
Vmc	A folder that contains the Java code for the Video Monitoring and Control (VMC) application.
vmcNls	A folder that contains the language support files for the VMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.

When you have completed your review of the folders in your Facility Commander Wnx directory, continue with *Facility Commander Wnx user accounts*.

Facility Commander Wnx user accounts

1. During the **Facility Commander Wnx** server computer installation, a default Facility Commander Wnx local user account was set up for you. If you choose to add users and assign or change user passwords, review *Defining user accounts* on page 105.

   Note: Default local group is **SPAdmin**. Default local user name is *secure* and the password is **SecurityMaster08** (case sensitive).

2. Refer to documentation you received when you purchased your Windows 2003, Windows 2008, Windows Vista, or Windows XP operating system for additional information on setting up a user and assigning passwords.

3. Continue with *Adding additional clients to the database* on page 86.

Adding additional clients to the database

Pinging additional client computers

In order to add an additional client computer in the database, you must verify that the computer can be reached by name.

To communicate with the client computer from the Server Computer:

1. Click **Start**, then **Run**.

2. Type `cmd` then click **OK**. A command prompt window opens.

3. Type `ping <name>` where `<name>` is the name of the client computer. Press **Enter**.

    If this was:

    • a **successful** ping, the client computer address was reached. Your window opens similar to *Figure 72*. Proceed with *Adding clients to the database* on page 88.

Figure 72. Successful ping to client computer
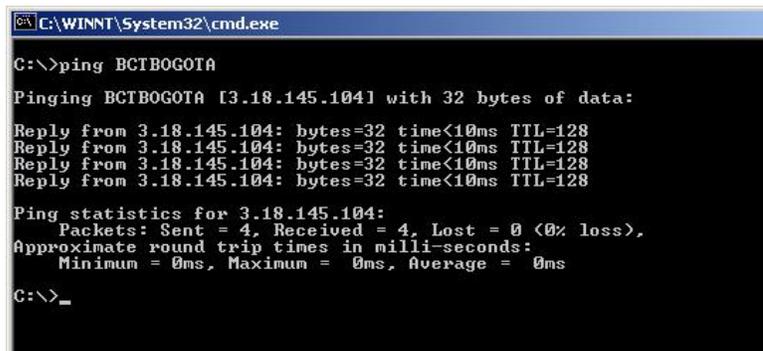
    • an **unsuccessful** ping**,** the client computer could not be reached. Your window will display similar to *Figure 73*. Verify your network settings as configured during the operating system setup (*Setting the network properties* on page 10 for a Windows 2003 or Windows 2008 Standard Server) or contact your network administrator for assistance.

Note: You cannot proceed until the networking issues are resolved. Contact your network administrator.

Figure 73. Unsuccessful ping to server computer

Checking computer accessibility over the network

Another method for checking access to the computer is by using the following command:

1. Click **Start**, then **Run**.

2. At the *Run* window, type `\\<computer name>` where `<computer name>` is the name of the client computer.

   If the computer is found, you receive a window listing the shared folders on that computer similar to the following:
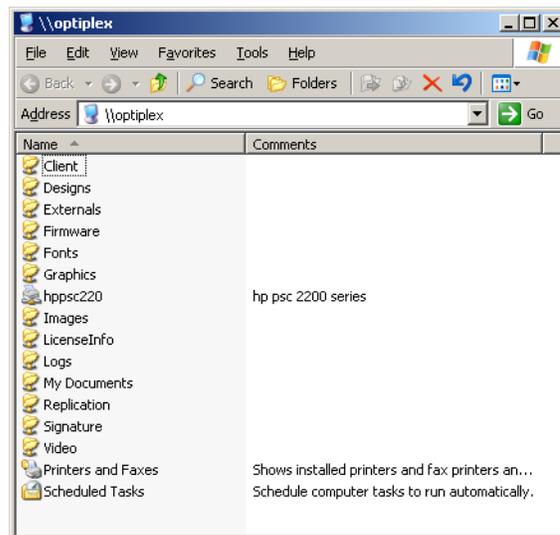
If the computer is not found, you receive a message similar to the following:

3. Continue with *Adding clients to the database*.

Adding clients to the database

You need to add all client computers to your Facility Commander Wnx database that will be in your Facility Commander Wnx system. To do this, log on to Windows using your Windows Logon USERID 'secure' and start the Facility Commander Wnx application.

To add clients to the Facility Commander Wnx database:

1. When you have installed and licensed the Facility Commander Wnx application for the first time (this is the **First Time License** computer), start the Facility Commander Wnx application by double-clicking the Facility Commander Wnx desktop icon.

   • **Typical Installation:** The server computer is the **First Time License computer and you can add clients at the server computer.**
   • **Custom Installation:** The components required to license may be stored on two separate computers:
      • The file server stores the LicenseInfo file.
      • The **First Time License computer stores the Component Services files.**

Note: You must be able to communicate with the computers that store both source files.

2. From the **File** menu, select **Login**.

Table 17.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
				You are here!		

3. Log on as **secure** with a password of **SecurityMaster08** (case sensitive).

4. If client computers have Windows XP Professional or Windows Vista installed and if they are on the network, you can access the Client form in the Facility Commander Wnx application, and proceed with adding clients to the database.

Table 18. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
					You are here!	

To access the Client Form*:*

1. From the Application Group pane, select **Administration** then **Client**. A new client form is displayed.

2. Click **Add** ⊞ from the Facility Commander Wnx main menu.

3. Enter data describing your new client. Refer to Online Help for details of each individual field.

   Note: If a client computer is currently offline or connected to the network by a gateway or hub, you may not see that computer. You may need to correct network issues with the client computer before proceeding. You may also see computers that cannot be clients since they do not use TCP/IP protocols.

4. Click **Save** 💾 .

5. Repeat *step 2* through *step 4* for all clients.

6. You can add as many clients as you want. However, only the licensed maximum number can connect to the Server at the same time. Refer to *About Facility Commander Wnx license summary* on page 98.

What's next?

If you have not already removed the installation disc from your CD/DVD drive, do so now. You have completed the server computer setup. Proceed with one or more of the following:

- If you have not licensed your system, do so now. Refer to *Chapter 4, License and configure security settings for your FCWnx system* on page 91.
- Proceed to set up the additional client computers on your Facility Commander Wnx system. Refer to *Chapter 6, Installing Facility Commander Wnx Software on additional clients* on page 109.
- Proceed to configure your Facility Commander Wnx system. Refer to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125.

Table 19. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Configure security settings	Set/verify services	Log on	Add add'l client computers	Finished!
						You are here!

Chapter 4   License and configure security settings for your FCWnx system

This chapter details procedures to follow when licensing your new Facility Commander Wnx system. Follow instructions in the sequence presented.

REMINDER: Keep in mind that you may have to return to a previous section of this Manual to continue the installation sequence following the licensing process.

In this chapter:

Licensing Facility Commander

The Licensing program is used to enter the license key for Facility Commander Wnx. The license key controls the following:

Note: If you purchased this system from GE Security, the license key is entered for you.

- Number of client licenses

    You can install Facility Commander Wnx on any number of computers. The license controls the number of concurrent clients connected to the server computer.

- Number of Photo Imaging licenses

    You can install Imaging on any number of computers. The license controls the number of Imaging stations active at the same time.

- Number of readers
- Number of cameras
- Number of API connections
- Thin client enabling
- Expiration date of the license
- Client Redundancy enabling
- Visitor enabling
- Report Commander License
- Guard tours enabling (micro controllers only)
- Graphics enabling
- Types of controllers
- Deployment parameters
- DVR types supported (this list is enabled if applicable to your system)

A summary of this information can also be viewed by selecting **About ...** from the application help menu.

Generating a registration key

To obtain a license key, contact GE Security Customer Support as follows. Have the barcode from the software box and machine seed key available.

Telephone: 1-888-437-3287, option 5
Email: gesecuritylicenses@ge.com

Table 20. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Add add'l client computers	Finished!
	You are here!				

Entering the license key

When you have a registered license key, it is time to enter the key in FCWnx License Setup, at the Facility Commander Wnx application server computer.

1. If the license program is not already open, select **Start**, **Programs**, **Facility Commander Wnx**, then **FCWnx License**. A **Welcome** dialog box displays.

2. Click **OK** to close the dialog box and display the **FCWnx License Setup** window.

3. Continue with the instructions as presented in one of the following scenarios:

   - *First time license* on page 93.
   - *Running in demo mode* on page 94.
   - *Second and any additional client licenses* on page 94.
   - *If you do not license during the Facility Commander Wnx installation sequence* on page 96.

First time license

This scenario assumes that this is the first client, and this client is licensing during the installation sequence:

1. The **First Time License** check box is checked for you. Do not change. If it is not checked, please check it now.

2. Select the **Warranty Reminder in the Days before Expiration** group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

License controller:

3. The **Machine Seed Key** is displayed for information only and is a read-only field.

4. In the **License Key** sections, enter the 35-character license key string obtained through the GE Security Web site. You can type the entry into the control dialog boxes *or* select, copy, and paste by clicking any **License Key** edit control boxes to paste the entire key.

File server:

5. The **Path for license information file located on the File Server:** is a read-only dialog box and displays for information only.

6. The **Browse** button is enabled and allows selection of file server license information path to give the user an opportunity to log in to the remote computer, if the currently logged in user does not have permissions for the folder. When you navigate to and find the server computer, you must select the **LicenseInfo** folder to display the server name/folder name combination in this dialog box.

7. Click **Register**. An **SQL Server Login** window displays.

8. Enter the password for the SQL Server 'sa' user, and then click **OK**.

9. A message displays informing you that the license setup was successful and that the services will be stopped.

10. Click **OK**. The license program exits. The system registers the license key for this client and the software is licensed for use.

   Note: The computer in your system that accesses and completes the registration for the first time is the license controller computer. The license key is stored on the File server computer; therefore, the first-licensed computer AND File server computer must be online when services are started, and the newly licensed client is brought online for the first time.

11. If you do not enter a license key, then Facility Commander Wnx will run in Demo Mode with only limited functionality. Refer to *Running in demo mode* on page 94.

   Note: A summary of your license displays in the **About ...** window of Facility Commander Wnx. Refer to *About Facility Commander Wnx license summary* on page 98, for additional details.

12. Following the licensing sequence, you *must* return to your installation sequence. Unless otherwise instructed, you are ready to set services. Refer to "Setting Services to Automatic Startup," in the section of this manual pertaining to the operating system you are installing.

Running in demo mode

If you are licensing your Facility Commander Wnx system for the first time and click Cancel during the licensing configuration:

When the **License Setup** window displays during the installation sequence, the option to **Cancel** can be selected. Installation of this application completes and operation of your system continues in **Demo Mode** until you properly license your system. In **Demo Mode**, the system periodically shuts down and you are required to restart this application to continue operations. This sequence continues indefinitely if you have not properly licensed your system.

Operation during Demo Mode is limited to the following:

- 2 client computers
- 1 Imaging session
- 4 readers
- 4 cameras
- 1 API connection
- Client Redundancy
- Guard tours
- GMC
- Controller support
- VMC

Second and any additional client licenses

You *must* license all additional clients in order to operate Facility Commander Wnx.

1. Click **OK** on the **License Setup** dialog box, if you have not already done so.

2. The **First Time License** check box is clear. Ignore and do not check the check box.

3. Select the **Warranty Reminder** in the Days before Expiration group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

4. The **Machine Seed Key** is displayed for information only and is a read-only field.

5. Ignore the **License Key** section. (This section is disabled and was completed when **First Time License** was completed.)

File server:

6. The **Path for license information file located on the File Server:** may have a default path listed. Verify the path or click **Browse** to navigate to the application folder for this application, then License Info file of the server computer. Select and click the file name. It now displays, in the **Path for license information file located on the File Server** field.

7. Click **Register**. The license program exits. The system registers the license key for this client and the software for this application is licensed for use. A message displays informing you that the license setup was successful and services for this application will be stopped.

8. A summary of your license displays in the **About ...** window of Facility Commander Wnx. Refer to *About Facility Commander Wnx license summary* on page 98, for additional details.

9. Following the licensing sequence, return to your installation sequence.

Note: License controllers and clients must relicense if the network card has been changed or the computer replaced.

If the license controller computer is relicensed, ALL clients must be relicensed.

If you do not license during the Facility Commander Wnx installation sequence

If you do not license during the installation sequence, installation completes and operation of your system continues in Demo Mode until you properly license your system. Refer to *Running in demo mode* on page 94, for details.

This scenario assumes that this is the first client, and this client is licensing some time AFTER the Facility Commander Wnx installation sequence:

1. Check the check box **First Time License**.

License controller:

2. Select the Warranty Reminder in the Days before Expiration group box, and enter or select the number of days before expiration of your warranty that you want a reminder to begin displaying in your application. This field accepts a number between 0 and 120.

3. Accept and do not change the **License Controller**, **Machine Seed Key**, as displayed.

4. In the **License Key** sections, enter the 35-character license key string obtained through the GE Security Web site. You can type the entry into the control dialog boxes *or* copy, cut, and then click any **License Key** control dialog box to paste the entire key.

File server:

5. The **Path for license information file located on the File Server:** is a read-only dialog box and displays for information only.

6. The **Browse** button is enabled and allows selection of file server license information path to give the user an opportunity to log in to the remote computer if the currently logged in user does not have permissions for the folder.

7. Click **Register**.

8. The **SQL Server Login** dialog box may display, as shown in *Figure 74*. Clear the **Use Trusted Connection** check box, if checked, and enter **Login ID** as 'sa' and enter sa's **Password**. If you purchased your system from GE Security, a temporary password of `SecurityMaster08` (case sensitive) was assigned. We recommend that you enter a password of your choice. Click **OK**.

Figure 74. SQL Server Login dialog box with data
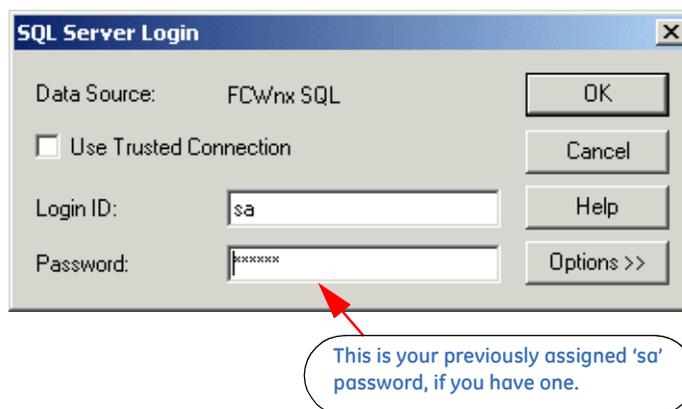
9. The license program exits. The system registers the license key for this client and the software is licensed for use. A message displays informing you that the license setup was successful and services will be stopped.

10. Following the licensing sequence, a summary of your license displays in the **About...** window of each client computer. Refer to *About Facility Commander Wnx license summary* on page 98, for additional details.

11. You are ready to log on. Refer to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125 for login instructions.

   Note: The computer in your Facility Commander Wnx system that accesses and completes the registration for the first time is the license controller computer. The license key is stored on the license controller computer; therefore, the license controller computer must be online, with Facility Commander Wnx services running in order to license additional client computers.

12. We recommend that you store your license agreement number in a safe place, so that if the license key is ever destroyed or corrupted, you can reinstall without having to contact GE Security.

About Facility Commander Wnx license summary

Following a successful login, the Edition of Facility Commander Wnx installed on your computer, as well as the Service Pack (if any), and parameters of your system display in the Facility Commander Wnx application, **Help** menu, **About FCWnx** window, similar to the following:

Figure 75. Help Menu - About window
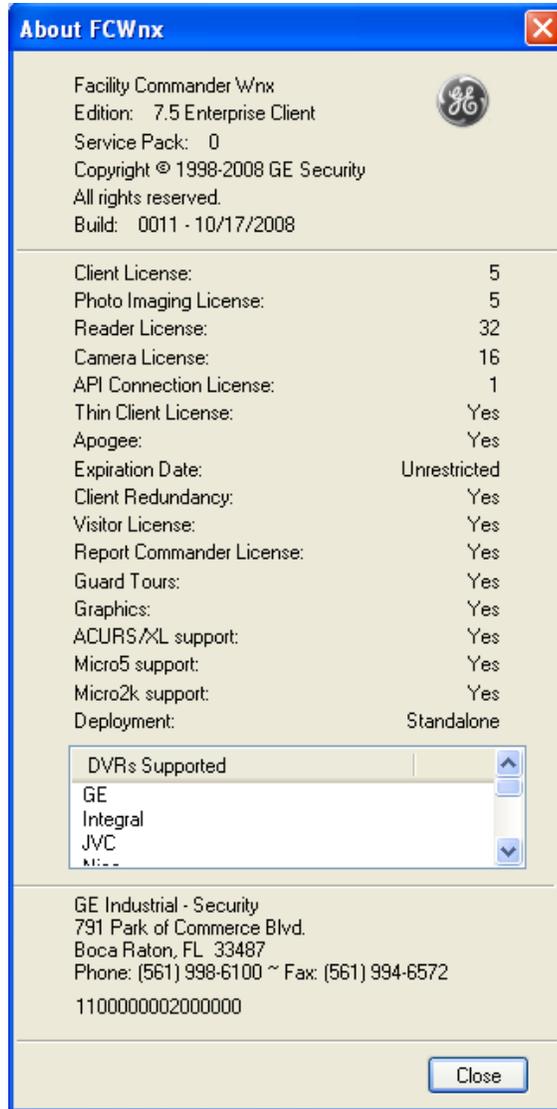
SecurityCnfg Utility

This application assists you in configuring firewall and DCOM settings on your computer. We recommend that you configure your FCWnx system with the Windows firewall ON. In order for your system to perform successfully, the following firewall and DCOM ports must be configured for server and client communication across your network.

For machines running Windows XP or Windows 2003, you must be logged in with local administrator rights to run the SecurityCnfg Utility. If not, log off and log back on as a user with these permissions.

For machines running Windows Vista or Windows 2008, you must be logged in as the local administrator to run the SecurityCnfg Utility. If not, log off and log back on as the local administrator.

This application is launched one of three ways:

- Auto launches immediately following the licensing sequence.
- Select **Configure Ports** on the main **File** menu of FCWnx.
- Click **Start**, then select **Programs**, **Facility Commander Wnx**, then **Security Configuration**.

Once the program starts:

1. The **Communications Ports for Clients** window displays. This displays the low and high range for the ports used for TCP and UDP filtering.

2. Accept the given port values or change to suit your installation. If you need to change the ports, contact your IT department to make sure there are no port conflicts.

3. Click **Next** to continue. The settings are automatically saved to your computer. The **DCOM User and Password** window displays.

4. The **Anonymous** check box is checked by default which means this application uses anonymous authentication. That is, DCOM authentication is not verified. DCOM communications are configured for you and ports are opened during installation.

Table 21. Supported authentications

	Anonymous	Local User Account	Domain Account
Domain	Yes	N/A	Yes
Workgroup	Yes	Not supported	N/A

- If you use anonymous authentication, skip to *step 10*.
- If you do not wish to use anonymous authentication, clear this check box and complete the remaining fields on the window.

If you cleared the **Anonymous** check box, these fields are enabled.

5. In the **Username** field, enter a domain or local user name for this user.

6. In the **Password** field, enter a domain or local password for the user listed in the **Username** field.

7. In the **Password (Confirm)** field, enter the domain or local password a second time identical to what was entered in the **Password** field.

8. In the **Domain** field, enter the name of the FCWnx domain.

9. Items to note:

   • The username and password are used to authenticate remote DCOM objects.
   • To keep interruptions to the FCWnx application to a minimum, your IT Department may choose to set passwords as never expiring.
   • If any computer in your FCWnx system uses DCOM authentication, then all other client computers must use DCOM authentication.

10. Click **Next** to continue. The settings are automatically saved to your computer and DCOM is configured for FCWnx.

11. The **Firewall Configuration** window displays. The following port numbers display by default:

    • Controller communications port: 6699
    • Client workstation/server communications port (RPC): 135

    The following port numbers are read from the dvmrtable of your FCWnx system.

Server Workstation Video Streaming Port	8088	Used by the video server to send streaming video.
Start Video Communications Port Range (3)	8085	Used by video clients to communicate with video servers.
Start Digital Video Viewer Port Range (20)	8089	Additional ports used by video clients to communicate with video servers. These numbers signify a range of ports. Your application log identifies the specific ports that are opened. Additionally, your firewall application identifies which ports are on or off.

12. Accept the default port settings or enter another setting. If you change any setting, you are opening firewall ports and changing how video communicates:

    • If any port (range) setting is changed, the previously opened firewall port remains open. For example, the first time SecurityCnfg is run, you accept the default settings. You run SecurityCnfg again and change the port numbers. Now, in addition to the default ports, additional ports are open.
    • Ports are usually changed because they are in use by other applications. Closing the ports in the firewall affects these applications.
    • It is required that each computer in your FCWnx system be changed to the identical setting.
    • Then, restart services.

13. Click **Finish** to save and close this application. The settings are automatically saved to your computer.

What's next?

Unless otherwise stated in your installation sequence, continue the installation for your system by selecting one of the following sequences:

   • **Facility Commander Wnx Server Computers:** *Setting services to automatic startup* on page 82

   • **Facility Commander Wnx Client Computers**: *Configuring security settings* on page 119

Chapter 5 Windows XP Professional or Windows Vista system setup

This chapter provides specific information about setting up a Windows XP Professional or Windows Vista computer as a Facility Commander Wnx client computer. We recommend that you read these sections carefully before you begin the installation. Perform the steps in the order given. Each client computer will run the Facility Commander Wnx application and Imaging package.

In this chapter:

Preinstallation checklist

To prepare your Windows XP Professional or Windows Vista computer, refer to this checklist of reminders:

Note: If you purchased this system from GE Security, these tasks were completed for you.

- Meet the minimum recommended hardware and software requirements.
- Install the network card.
- Configure the computer for the network.
- Install Windows XP Professional or Windows Vista with appropriate Service Packs.
- Set the monitor resolution to a minimum of 1024 by 768 pixels.
- Set the Network Properties.

Installing the network card

If you have not already done so, install the network card now. Follow the instructions included with the board. Verify that you are using the same network card speed as the existing network. Refer to the *Microsoft Installation Guide* for details of a network card configuration or obtain information at www.microsoft.com/technet.

Note: If you purchased this system from GE Security, the network card is installed for you.

Configure the computer for the network

Determining computer type

Before you continue, consult with the network administrator before adding any computers to an existing network.

The system computer can be:

1. Part of a new or existing workgroup.

2. Part of an existing domain. (See *Adding the computer to an existing domain* on page 103.)

Note: Setup will be different depending on which option you choose. Decide the configuration type before you continue with the installation.

Adding the computer to an existing domain

If the Professional computer will be part of an existing domain, you will need to add the computer to the network. Since network configuration varies from company to company, see your network administrator for assistance.

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

It is important that the Facility Commander Wnx server and client system use the same network properties. Refer to *Setting the network properties* on page 104 for more information or consult with your network administrator.

Installing the operating system

The Facility Commander Wnx client computer *must* be running Windows Vista or Windows XP Professional with any applicable Service Packs. If the operating system is not already installed on your computer, you will need to install it now.

Note: If you purchased this system from GE Security, the operating system is installed for you.

Insert the Windows Installation disc in your CD/DVD drive and follow the instructions provided by the Microsoft documentation.

Note: This section represents an overview of the installation procedure and does not provide step-by-step instructions to install the operating system.

During the installation of the operating system, you will be asked to select a file system type. For added security, we recommend that you select **NTFS**.

For additional information, consult your Microsoft documentation.

Assigning user passwords

We recommend that you assign a password to all user accounts. This will avoid security permission issues when attempting to access remote client computers.

Refer to your Windows documentation for additional information on setting up a user and assigning passwords.

Setting up your monitor

The minimum recommended monitor resolution required for Facility Commander Wnx is 1024 by 768. Small Fonts *must* be selected on the **General** tab of the **Advanced** properties. If using Imaging, the minimum color resolution is High Color (16-bit).

To access the display settings:

1. Right-click your mouse on the desktop.
2. Select **Properties** from the menu.

3. Click the **Settings** tab in the **Display Properties** window.

4. Change the **Screen resolution** to at least 1024 by 768 pixels.

5. Change the **Color quality** to at least 16 bit if using imaging.

6. Click **Apply**.

7. Click **OK**.

Setting the network properties

It is important that the same network properties are used for both the Facility Commander Wnx server and client systems.

Windows XP Professional

To check the network settings:

1. Right-click **My Network Places**.

2. Select **Properties** from the shortcut menu.

3. Right-click the **Local Area Connection** icon and select **Properties**. The **Local Area Connection Properties** window opens.

4. Select **Internet Protocol TCP/IP**.

5. Click **Properties**.

6. Select one:

   - **Obtain an IP address automatically**
   - **Use the following IP address:**

   Note: Facility Commander Wnx computers do not require static IP addresses. However, if you selected **Use the following IP address** option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.

7. Click **OK**.

8. Click **OK** to exit Local Area Connection Properties.

9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under **Device Manager**.

Windows Vista

To check the network settings:

1. Click **Start,** and then click **Control Panel**.

   Category view: Click **Network and Internet**, and then click **Network Sharing Center**.

   Classic view: Double-click **Network Sharing Center**.

2. Click **Manage network connections**.

3. Right-click the **Local Area Connection**, and then select **Properties**. The **Local Area Connection Properties** window opens.

4. Select **Internet Protocol Version 4 (TCP/IPv4)** and **Version 6 (TCP/IPv6)**.

5. Click **Properties**.

6. Select one:

   • **Obtain an IP address automatically**

   • **Use the following IP address:**

   Note: Facility Commander Wnx computers do not require static IP addresses. However, if you selected **Use the following IP address** option, you must obtain a valid IP address from the network administrator, or use a local IP address that no other computer is using in your network. Consult your network administrator for detailed instructions.

7. Click **OK**.

8. Click **OK** to exit Local Area Connection Properties.

9. After Windows is installed, restart the computer and make sure it is connected to the network. Verify that you do not have any hardware errors under **Device Manager**.

Defining user accounts

Defining user accounts

Windows requires that a user account be set up for each user on that computer and for each user accessing the server remotely. This section addresses adding user accounts and assigning user passwords.

The **User Accounts** selection in **Control Panel** allows you to add users to your computer and to add users to a group. Permissions and user rights are usually granted to groups. By adding a user to a group, you give the user all the permissions and user rights assigned to that group.

For instance, a member of the Users group can perform most of the tasks necessary to do the job, such as logging on to the computer, creating files and folders, running programs, and saving changes to files. However, only a member of the Administrators group can add users to groups, change user passwords, or modify most system settings.

Adding users is **optional** but recommended since this clearly identifies each user in Windows.

Note: If you do choose to add users, you must assign them to the group 'SPAdmin' after Facility Commander Wnx is installed.

Items specific to Windows XP Professional

Disable simple file sharing

Simple File Sharing is a feature in Windows XP that removes file sharing security options available in other version of Windows. This setting must be disabled for FCWnx to operate successfully between servers and

clients. Once the user sets the permission, the user and clients have access to shared files and the ability to assign passwords to shares.

1. Double-click **My Computer** on the Windows XP desktop.

2. From the **Tools** menu, select **Folder Options** to open a Folder Options window.

3. Click the **View** tab and locate the **Use simple file sharing (Recommended)** check box in the list of Advanced Settings.

4. To disable Simple File Sharing, ensure this check box is not checked. Check the check box to disable the option. (The Simple File Sharing check box should be at or near the bottom of the Advanced Settings list.)

5. Click **OK** to close the Folder Options window. The settings for Simple File Sharing are now updated; no computer restart is required.

Enabling Simple File Sharing prevents the ability to assign user-level passwords to shares. When Simple File Sharing is enabled on a computer, remote users are not prompted for a password when accessing that computer's shares.

If the Windows XP Professional computer is part of a Windows domain rather than a Windows workgroup, this process for enabling or disabling Simple File Sharing has no effect. Simple File Sharing always remains disabled for computers joined to domains.

Firewall exceptions list

If the Firewall is selected ON, **File and Printer Sharing** on the Firewall Exceptions list must be enabled.

To enable **File and Printer Sharing**:

1. Click **Start** and then click **Control Panel**.

2. On the control panel, double-click **Security Center**, and then click **Windows Firewall**.

3. On the Exceptions tab, make sure that **File and Printer Sharing** is selected (check box selected), and then click **OK**.

Items specific to Windows Vista

Windows communication foundation HTTP activation

If the Video Management Console (VMC) will be running on this computer, Windows Communication Foundation HTTP Activation must be enabled.

To enable Windows Communication Foundation HTTP Activation:

1. Click **Start**, **Control Panel,** and then **Programs and Features**.

2. Select **Turn Windows features on or off** from the Tasks panel on the left.

3. Search for Microsoft .NET Framework 3.5, and then enable (check box) **Windows Communication Foundation HTTP Activation**.

Firewall exceptions list

If the Firewall is selected ON, the following must be enabled in the Firewall Exceptions list:

- File and Printer Sharing
- Network discovery
- Workgroup Only: Remote Administration

To enable Firewall Exceptions selections:

1. Click **Start** and then click **Control Panel**.

2. On the control panel, double-click **Security Center**, and then click **Windows Firewall**.

3. On the Exceptions tab, make sure that the following selections are selected (check box selected), and then click **OK**.

   - File and Printer Sharing
   - Network discovery
   - Workgroup Only: Remote Administration

Disable automatic windows update feature

The automatic windows updates feature must be disabled.

To disable windows updates automatic feature:

1. Click **Start** and then click **Control Panel**.

2. On the control panel, click **Security Center**, and then click the **Automatic Updates** tab.

3. On the **Automatic Updates** tab, click **Turn off Automatic Updates**. Click **OK**.

What's next?

You are ready to install Facility Commander Wnx. Refer to *Chapter 6, Installing Facility Commander Wnx Software on additional clients* on page 109.

Chapter 6 Installing Facility Commander Wnx Software on additional clients

This chapter includes instructions for installation and configuration of Facility Commander Wnx on additional client computers. These computers can be communication clients for hosting controllers and digital video recorders, and available as Imaging stations. Follow instructions in the order presented.

In this chapter:

Defining additional clients

If you have not already done so, you must add the client computers to the Facility Commander Wnx database before installing the Facility Commander Wnx software on the additional clients. Refer to *Adding additional clients to the database* on page 86.

Reaching the First Time License computer over the network

Verify that you can reach the **First Time License** computer by computer name before you install Facility Commander Wnx on additional clients.

- **Typical Installation:** The server computer is the First Time License computer and you can add clients at the server computer.
- **Custom Installation:** The file components required to license may be stored on two separate computers:
  - The file server stores the LicenseInfo file.
  - The First Time License computer stores the Facility Commander Wnx Component Services files.

Note: You must be able to reach the computers for both sources.

Pinging the First Time License computer

To communicate with the First Time License computer by computer name:

1. Click **Start**, then **Run**.

2. Type `cmd` then click **OK**. A command prompt window opens.

3. Type `ping <servername>` where `<servername>` is the name of the First Time License computer. Press **Enter**.

   If this is:

   - a **successful** ping reveals the computer address was reached. Your window should look similar to *Figure 76*. Proceed to install Facility Commander Wnx on the client computer. Refer to *Starting the installation* on page 112.

Figure 76. Successful ping to server computer
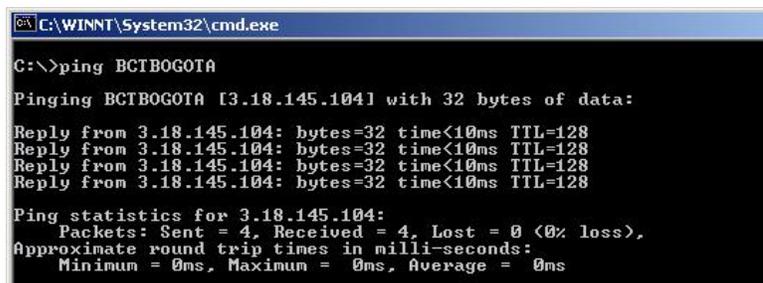
- If the computer could not be reached, your window will display similar to *Figure 77*. Verify your network settings as configured during the operating system setup (*Installing the operating system* on page 103) or contact your network administrator for assistance.

Note: You cannot proceed until the networking issues are resolved.

Figure 77. Unsuccessful ping to server computer

Checking computer accessibility over the network

Another method for checking access to the computer is by using the following command:

1. Click **Start**, then **Run**.

2. At the **Run** window, type `\\<computer name>` where `<computer name>` is the name of the First Time License computer.

   If the computer is found, you receive a window listing the shared folders on that computer similar to the following:
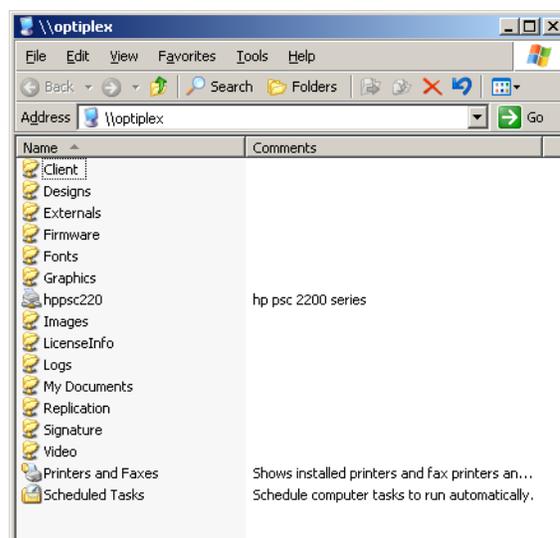
If the computer is not found, you receive a message similar to the following:

Installing Facility Commander Wnx: Windows Vista or XP Professional additional client computer

Table 22.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
You are here!					

Before you begin

- Your Facility Commander Wnx system *will not* install unless minimum requirements have been met. Before you begin, refer to *Recommended minimum requirements* on page 2 and *Preinstallation checklist* on page 102.
- If you are installing on a **non-English operating system**, the following items *must* be installed **in the appropriate language to the operating system you are installing**. You cannot install Facility Commander Wnx until this is accomplished.
  - .NET Framework
  - MDAC
- Windows Vista machines must have Windows Installer 4.5 installed prior to installing FCWnx 7.5.

Starting the installation

To install the Facility Commander Wnx application:

Note: If you purchased this system from GE Security, Facility Commander Wnx is installed for you. Skip to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125.

1. You *must* be logged in as administrator user to the local computer. If not, log off and log back on as a user with administrator permissions. (If you are logging onto a domain, log off and log on as an administrator to the domain.) This user must also have local administrative privileges.

2. Insert the Facility Commander Wnx installation disc into the CD/DVD drive. If the disc does not launch, you must manually start the software. Using Windows Explorer, navigate to the FCWnx Installation disc and double-click **Setup.exe.**

3. When the Facility Commander Wnx Install window opens, click **Install**.

    A series of windows display as the listed components install. Answer the prompts as appropriate and continue. This takes several minutes.

    • .NET Framework
    • MDAC
    • Windows Installer

4. The following components cause the system to restart when a new version is installed:

    • MDAC
    • Windows Installer
    • .NET Framework

    If your computer restarts, log on as administrator and installation continues.

5. Please wait as the Facility Commander Wnx installation processes updates on your system. When the latest versions of each component are updated and identified, Facility Commander Wnx installation begins, and the Welcome window displays. Continue with *Facility Commander Wnx software installation begins*.

Facility Commander Wnx software installation begins

Note: A **Cancel** button displays on every Facility Commander Wnx 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 Facility Commander Wnx software.

1. The Facility Commander Wnx **Welcome** window displays. Click **Next.**

2. During installation, provide the appropriate answers to prompts as they display.

3. When the **License Agreement** window displays, select **I accept the license agreement**.

4. Select Typical or Custom.

Table 23. Selecting an installation type

Typical	Custom
The installation requires little user interaction and you do not need to make any special choices. Follow instructions in *Typical installation* on page 114.	If you need to accomplish any one of the following tasks, you must select Custom: • If your Facility Commander Wnx database server and file server were installed on one or more separate computers. • If you changed the `secure` password. • If you installed on a Windows Cluster Server. **Note:** If you change the default Facility Commander Wnx user password, all computers must use the identical Facility Commander Wnx user replacement password. Continue by proceeding to *Custom installation* on page 115.

Typical installation

If you choose a Typical installation, follow the instructions below:

1. Select the type of installation as **Typical.**

Figure 78. Select Installation Type - Typical
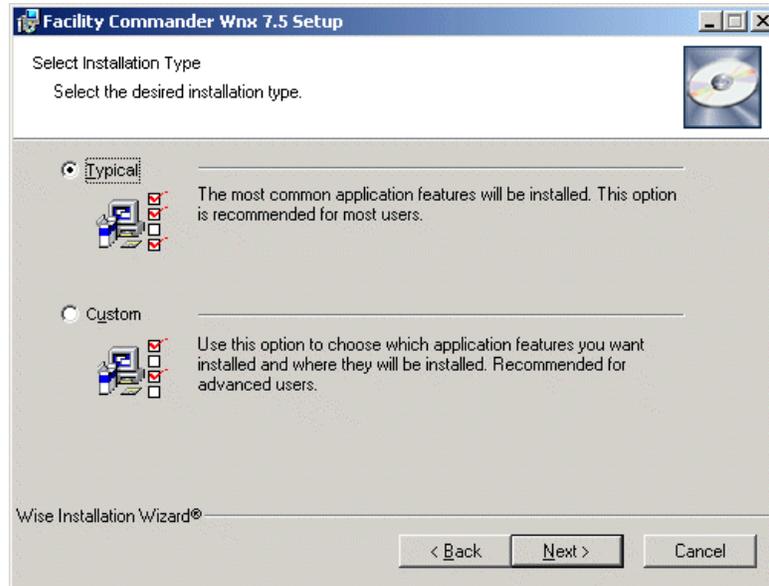
2. Click **Next**. The **Install FCWnx Client/Server** window displays as shown in

Figure 79. Select Type of Installation - Typical Client
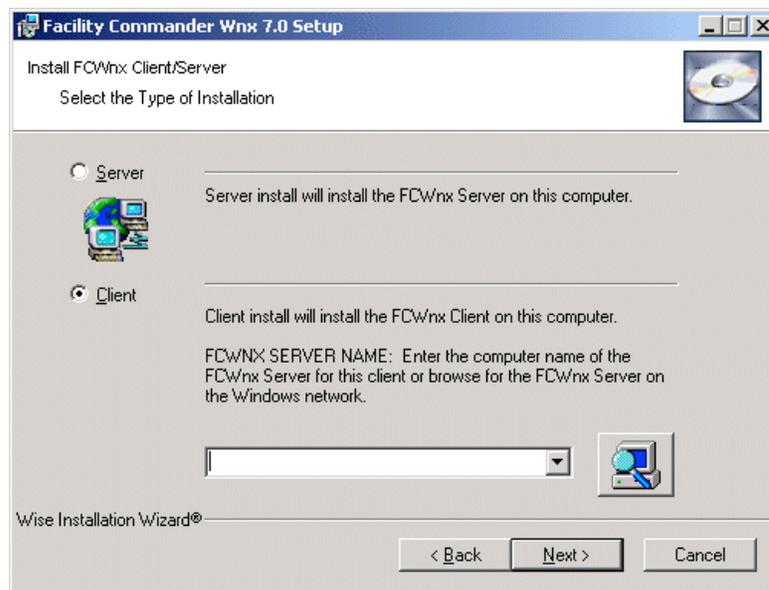
3. At the **Install FCWnx Client/Server** window, select **Client**. The **FCWnx Server Name** field is now available. Enter the name of the Facility Commander Wnx database server and file server for this client workstation or **Browse** by clicking the computer icon, for the server computer name on the Windows network. (This is the server computer you configured in a previous chapter.)

4. Click **Next.** The **Ready to Install the Application** window displays.

5. The default destination folder is indicated. You may want to install to another location. Click **Browse** to navigate to the program folder of your choice for placement of Facility Commander Wnx files.

6. Click **Next** to continue.

7. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

8. When the **Facility Commander Wnx has been successfully installed** window displays, click **Finish**.

9. A **License Setup**, **Welcome** dialog box displays. Click **OK**.

10. The **Facility Commander Wnx Setup** window displays. You are required to license this client installation in order for Facility Commander Wnx to function.

11. Continue with *Licensing the client computer* on page 118.

Table 24. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
	You are here!				

Custom installation

⚠️ **CAUTION:** Custom Installation is recommended for experienced software installers only.

You must select **Custom** in order to accomplish the following:

- Complete the configuration when the **Database Server** and **File Server** are on different computers.
- Change the **secure** password.

Note: If you change the default Facility Commander Wnx user password, all computers must use the identical Facility Commander Wnx replacement user password.

To select type of installation and continue:

1. Select the type of installation as **Custom**, as displayed in *Figure 80*.

Figure 80. Select Installation Type - Custom
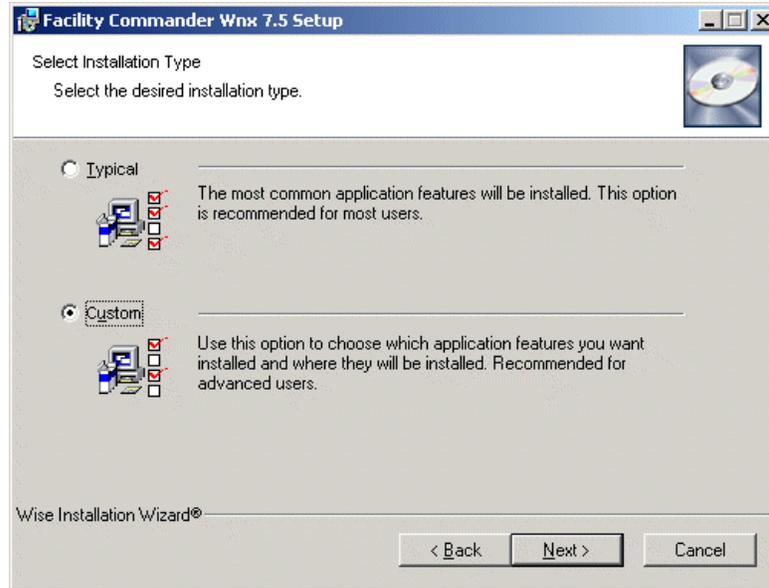
2. Click **Next**. The **Installing Global Edition?** window displays as shown in *Figure 81* on page 116.

Figure 81. Installing Global Edition window
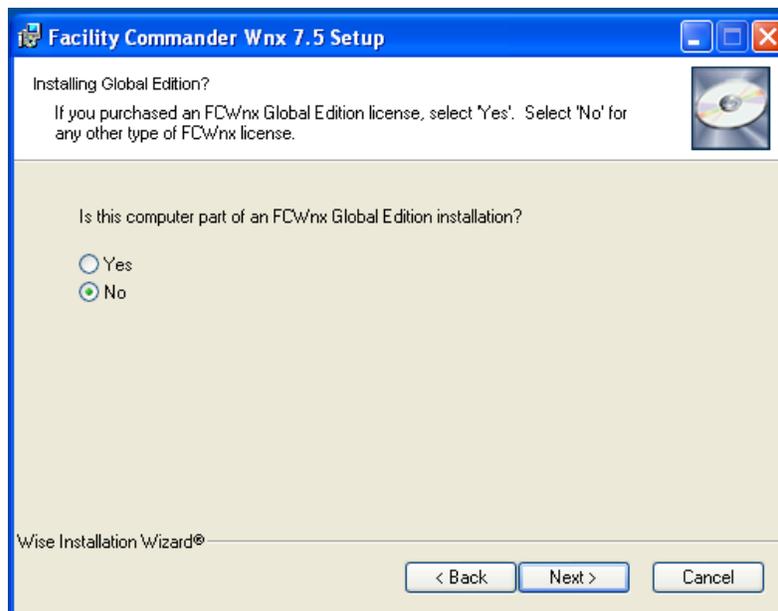
3. Click **No**, that this computer is not part of an FCWnx Global Edition installation, and then click **Next**. The **Install FCWnx Professional Client/Server** window displays as shown in *Figure 82*.

Figure 82. Custom Install FCWnx Professional Client/Server
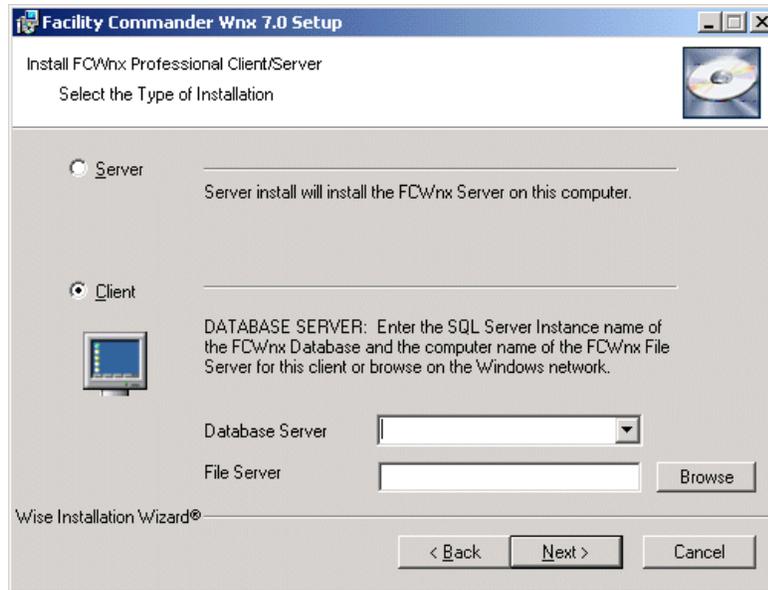
4. Select **Client.** The **Database Server** field is now available. Enter the name of the FCWnx database server and SPSQL instance or select from the drop-down list of available server computers for this client.

5. Enter the **File Server** for this client or **Browse** for the **File Server** name on the Windows network. (These are the server computers you configured in the previous chapters.)

6. Click **Next**. The **Change the 'Secure' Password** window displays as shown in *Figure 83*.

Figure 83. Change the Secure Password window

7. The Facility Commander Wnx installation creates a new Windows User ID called **Secure**. By default, the password is **SecurityMaster08** (case sensitive). 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**

   Enter your new password and then enter a second time.

   > **Note:** This password must be the same for all computers in the Facility Commander Wnx system.

8. Click **Next**. The **Ready to Install the Application** window displays.

9. The default **Destination Folder** is indicated. You may want to install to another location. Click **Browse** to navigate to another program folder for placement of Facility Commander Wnx files.

10. Click **Next** to continue. Facility Commander Wnx copies system files, updates the system configuration, and displays the Facility Commander Wnx icon on your desktop. This may take a few minutes.

11. When the **Facility Commander Wnx has been successfully installed** window displays, click **Finish**.

12. Continue with

Table 25. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
	You are here!				

Licensing the client computer

1. Typically, you are configuring computers that are running additional Facility Commander Wnx client applications. The reminder to license is placed at this point to maintain the proper sequence in completing the installation. At this time, proceed to *Chapter 4, License and configure security settings for your FCWnx system*

Note: **Reminder:** When the licensing sequence is complete, return to this step and continue the installation.

Table 26. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
		You are here!			

Configuring security settings

The Security Configuration utility launches immediately following the License Setup and assists you in configuring firewall and DCOM settings on your computer. Check with your IT department for company-specific network settings.

Refer to *SecurityCnfg Utility* on page 99 for more details on using this utility.

After successfully configuring the security settings:

1. You may receive a **Facility Commander Wnx Installation Complete** dialog box. If so, click **Yes** to restart your computer.

2. Log on as administrator and continue with *Setting services to automatic startup*.

Setting services to automatic startup

Note: At this point in the installation, the Facility Commander Wnx services are stopped.

Now, you will need to change the startup method of the FCWnx services to automatic. This means every time the computer starts, the Facility Commander Wnx services start.

To set the startup method of Facility Commander Wnx Services:

1. Click **Start** and then click **Control Panel**

    Category view: Click **Performance Maintenance**, **Administrative Tools**, and then click **Services**.

    Classic view: Click **Administrative Tools**, and then click **Services**.

2. Expand the services and scroll down.

3. Select **FCWnx Diagnostics**.

Figure 84. Facility Commander Wnx component services
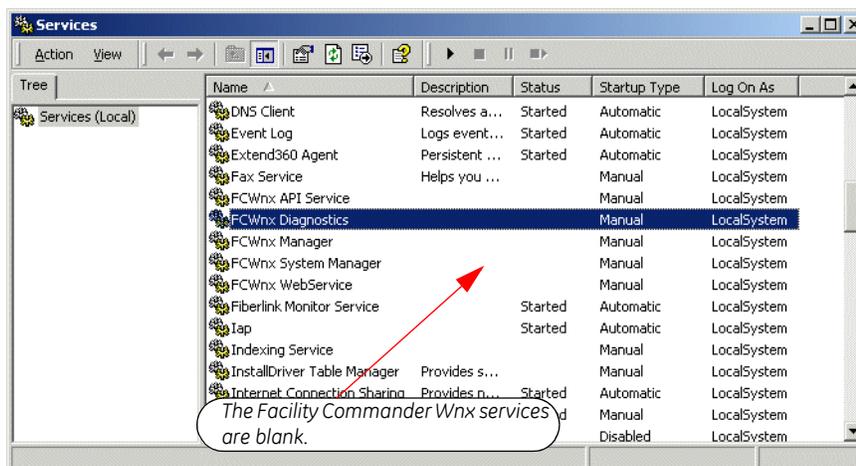
4. The status will be either **Started** or blank. If it is blank, then the service is not running.

5. Right-click and select **Properties**. In the **Startup type** field, select **Automatic**.

6. Click **Apply**, then **OK** to close the window.

7. Repeat steps 3 through 6 for the following services:

   - FCWnx Manager
   - FCWnx Media Server
   - FCWnx System Manager
   - FCWnx WebService

   Note: **FCWnx API Service** is used when an external system is sending or receiving transactions by way of Application Program Interface to Facility Commander Wnx.

8. Close all windows and applications.

9. Restart the Facility Commander Wnx client computer.

Items specific to Windows Vista

Windows communication foundation HTTP activation

If the VMC will be running on this computer, Windows Communication Foundation HTTP Activation must be enabled.

To enable Windows Communication Foundation HTTP Activation:

1. Click **Start**, **Control Panel,** and then **Programs and Features**.

2. Select **Turn Windows features on or off** from the Tasks panel on the left.

3. Search for Microsoft .NET Framework 3.5, and then check the **Windows Communication Foundation HTTP Activation** check box.

Logging on to client computer

Table 27. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
			You are here!		

Note: Restart the client computer at this time if you have not already done so.

During installation of the **Facility Commander Wnx** software, a default local Windows user is created. You will need to log on to the client computer as a user that is part of the SPAdmin local group. By default, a user `secure` with the password **SecurityMaster08** (case sensitive) was created for you and added to the SPAdmin group.

If the services are started, you are now ready to open the Facility Commander Wnx application. Refer to *Configuring security settings* on page 119 to verify if Facility Commander Wnx Services are started.

To access Facility Commander Wnx after installation:

1. To access Facility Commander Wnx from your desktop icon, double-click:

Facility
Commander Wnx

2. As an alternative, access Facility Commander Wnx from the **Start** menu. Click **Start**, **Programs**, and then **Facility Commander Wnx**. The **Facility Commander Wnx** menu displays:

Diagnostic Viewer
Facility Commander Wnx
FCWnx License
Security Configuration

The options are as follows:

- **Diagnostic Viewer**

  Refer to the Diagnostic Viewer online help for details of this option.

- **Facility Commander Wnx**

  Refer to *Chapter 7, Logging on and configuring Facility Commander Wnx* on page 125.

- **FCWnx License**

  Refer to *Second and any additional client licenses* on page 94.

- **Security Configuration**

  Refer to *SecurityCnfg Utility* on page 99.

Table 28.   Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
				You are here!	

Viewing Imaging status

To verify whether you currently have Imaging capabilities:

1. Log on to Facility Commander.

2. From the Application Group pane, select Monitors & Controls, then **Client Monitor**. The number of Imaging licenses purchased with your system displays in a lower section of the form.

   Note: Keep in mind that Imaging installs on all computers in your Facility Commander Wnx system. Your Facility Commander Wnx license controls the number of Imaging stations active at the same time.

3. Select a client computer from the list displayed, then right-click to display the shortcut menu.

4. Select **Client** from the shortcut menu. The **Client Form** opens, displaying the record for the selected client.

5. Select **Imaging Status** as **Enabled** and click **Save**. The photo ID badging system is now enabled for use at this station.

Imaging login setup

If the operator that is running Facility Commander Wnx and Imaging system is not a member of the local Administrator's group, you *must* add the Power Users group to this account. The operator login should belong to at least the following local groups:

- Users
- Power Users
- SPAdmin

These groups grant the Windows user access to the Imaging system registry keys and file system.

To add an operator to user groups:

1. Click **Start** and then click **Control Panel.**

   Category view: Click **Performance Maintenance**, **Administrative Tools**, and then click **Computer Management**.

   Classic view: Click **Administrative Tools**, and then click **Computer Management**.

2. The **Services** window displays. Expand the list of services and scroll down.

3. Select **Local Users and Groups**, then **Users**. Your window should look similar to *Figure 85*.

Figure 85. Imaging login setup
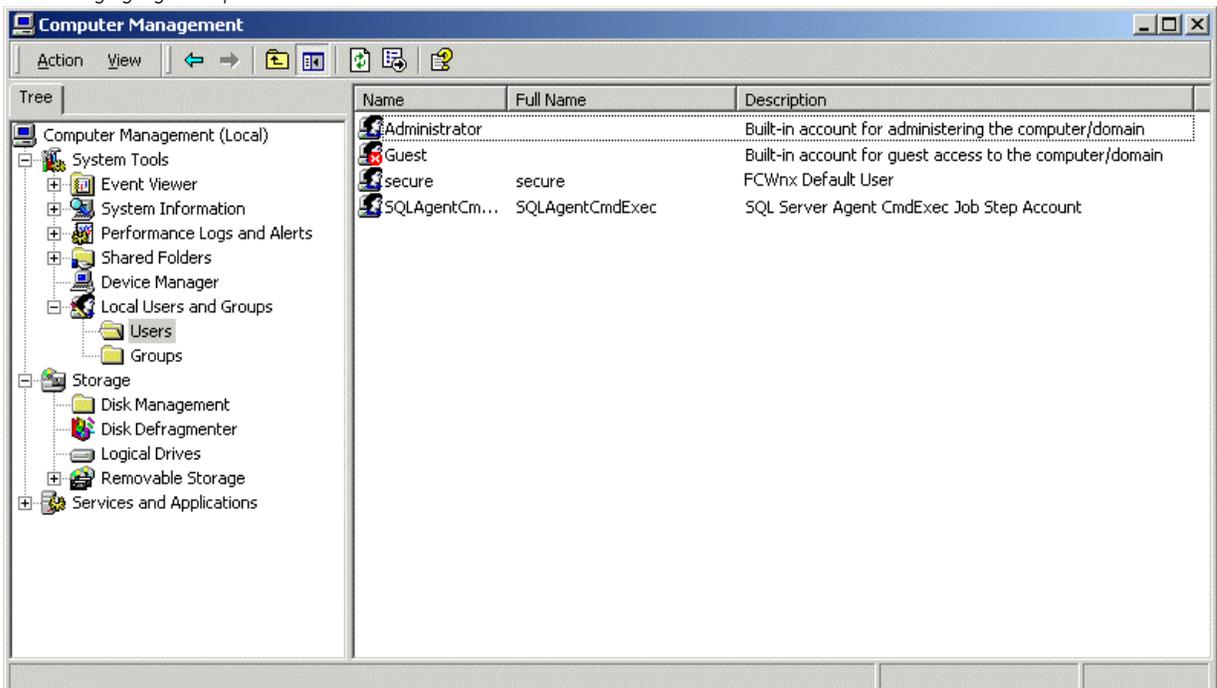
4. Double-click the user login **Name** to which you are adding access to login groups. The user **Properties** window displays.

5. Select the **Member Of** tab, then click **Add**.

6. When the **Select Groups** window displays, select those groups from the list of **Names** to which you are adding the user login, click **Add**, then click **OK**. The window should look similar to *Figure 86*. The operator running the Facility Commander Wnx and Imaging systems is a member of the groups listed.

Figure 86. Login Groups - Properties window

Client folder structure

During installation of Facility Commander Wnx software, the following folders are created: Client, English, Graphics, Logs, and Rpt. (If this is a **Custom** installation, the Graphics folder is on the file server.)

Some of the folders are shared. This allows other computers to gain access to the information stored in these folders, as long as they logged in as an authorized user.

Figure 87. Typical client folder structure
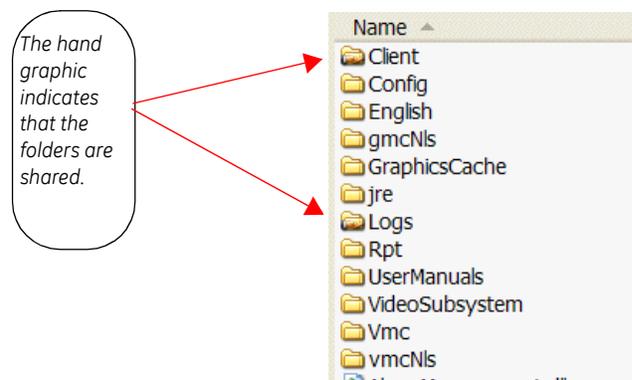
Client folders

To review a description of the folders in your FCWnx directory, refer to the following:

Table 29. Client folders

Folder	Description
Client	A shared folder that contains a self-extracting Microsoft utility, Microsoft Component Checker. This tool checks for compatibility and consistency of MDAC versions.This folder also contain an MSDEAdmin utility, used to access the Facility Commander Wnx databases.
Config	A folder that contains website configurations for the FCWnx Web Service. The FCWnx Web Service is used by VMC to communicate with FCWnx.
English	The files required to display the Facility Commander Wnx client software in English. As more languages are installed, more language-specific folders will display.
gmcNls	A folder that contains the language support files for the GMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.
GraphicsCache	A folder that contains the working data files for the GMC application.
jre	A folder that contains the Java Runtime Environment used by GMC and VMC.
Logs	A shared folder that contains the Facility Commander Wnx diagnostic log files.
Rpt	A folder that contains files used by the report engine to create Facility Commander Wnx reports.
UserManuals	A folder that contains the FCWnx and GMC User Manuals in pdf format.
VideoSubsystem	A folder that contains the dlls that enable communication between FCWnx and VMC.
Vmc	A folder that contains the Java code for the VMC application.
vmcNls	A folder that contains the language support files for the VMC application. After the base install of FCWnx, these folders are empty as no language kits have been installed yet. As the language kits are installed, the language support files are placed in this folder.

What's next?

You have completed the client computer setup. Now, proceed to configure the client parameters.

Table 30. Facility Commander Wnx installation progress bar

Install FCWnx	Obtain/install license	Set/verify services	Log on	Enable Imaging	Finished!
					You are here!

Chapter 7 Logging on and configuring Facility Commander Wnx

Once you have installed the Facility Commander Wnx software, you will need to log on to the server computer and set a few parameters before beginning to create any controller records or credentials. Review "Getting Started" in the Facility Commander Wnx Online Help for a recommended order of initial setup and configuration.

In this chapter:

Facility Commander Wnx services overview

Windows computers use special programs called services. A service is a process that can automatically start when the system boots and remain running as a background process independently of anyone being logged in.

All computers running Facility Commander Wnx client software use five services:

- *FCWnx Diagnostics* controls the diagnostic information log.
- *FCWnx Manager* controls the communication to and from the controllers and DVRs.
- *FCWnx System Manager* coordinates the communications of data between computers and handles Facility Commander Wnx licensing.
- *FCWnx Media Server* coordinates communications with DVRs and distributing video to clients.
- *FCWnx WebService* coordinates communications for VMC.

These services run regardless of whether anyone is logged in to Windows or **Facility Commander Wnx (unless Auto Shutdown is enabled on the Client Form).** In other words, the computer must be turned on but no one needs to be logged in.

These services *must* be running in order for connection to the client computers and for controllers to communicate with their server computer.

If you are going to be using an API interface, your computer will use a sixth service:

- FCWnx API Service can be started manually at the time you install an API interface.

To access the Services form:

1. Click **Start**, **Settings**, **Control Panel**, **Administrative Tools**, then **Services**. The **Services** form displays, similar to *Figure 88*.

Figure 88. Facility Commander Wnx services - Windows
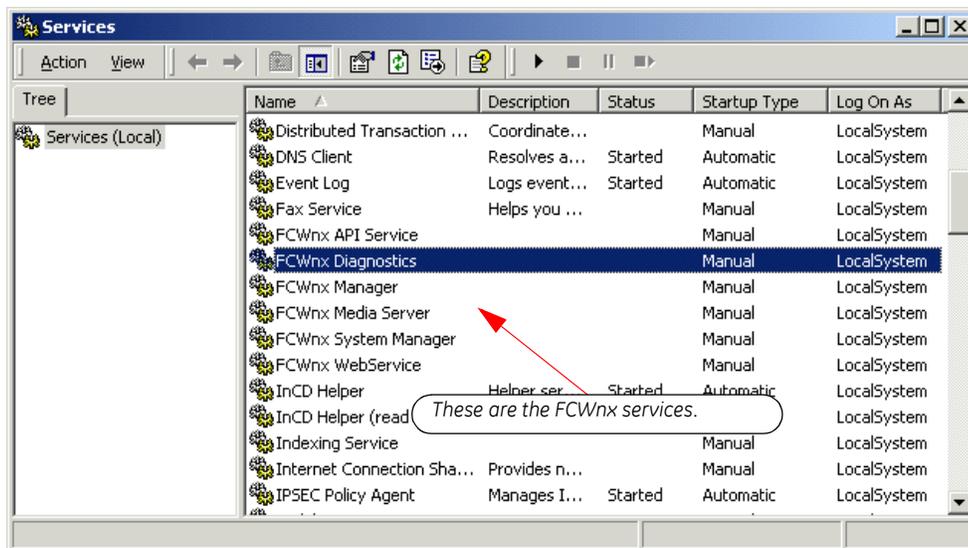
The status will be either **Started** or blank. If it is blank, then the service is not running.

⚠️ **CAUTION:** Changing the state of services without a good working knowledge of the services' purpose can cause the computer to act erratically!

During your installation sequence, services were set to automatic. Refer to *Setting services to automatic startup* on page 82. Once set to automatic, FCWnx initializes these services with an automatic startup which means that it starts as soon as the computer is started. We recommend that you do not change this setting. However, should you need to start them manually, keep the following in mind.

These services need to start in the following order (and stopped in the reverse order):

- FCWnx Diagnostics (If you stop FCWnx Diagnostics, all services stop.)
- FCWnx System Manager
- FCWnx Manager
- FCWnx Media Server
- FCWnx Webservice (If you start FCWnx Webservice, all services start.)

To start the FCWnx services:

1. Access the **Services** form. See *To access the Services form:* on page 126.

2. Right-click **FCWnx WebService** and select **Start**.

3. Right-click the service and click **Start**.

4. All other services are started.

To stop the Facility Commander Wnx services:

1. Shut down all client applications to ensure that any work in progress is saved.

2. Access the **Services** form. See *To access the Services form:* on page 126.

3. Right-click **FCWnx Diagnostics** and select **Stop**. A message displays informing you that the other services also stop.

4. Click **Yes**. All other services shut down and lastly, Diagnostics shuts down.

To verify or troubleshoot the **Facility Commander Wnx** services problems, look at your log files.

To set the FCWnx API Service:

FCWnx API Service is used when an external system is sending or receiving transactions by way of Application Program Interface to Facility Commander Wnx.

Starting Facility Commander Wnx

To open the Facility Commander Wnx client application.

1. To access Facility Commander Wnx from your desktop icon, double-click:

— or —

Access Facility Commander Wnx from the **Start** menu. Click **Start**, **Programs**, then **Facility Commander Wnx**. The **Facility Commander Wnx** menu displays. The following options are available:

- **Diagnostic Viewer**

    Refer to the document, *Diagnostics and Troubleshooting*, on the Documentation disc that shipped with your Facility Commander Wnx system, in PDF format or Online Help, for details of this option.

- **Facility Commander Wnx**

    Select and click this option to open the Facility Commander Wnx application.

- **FCWnx License**

    Refer to the licensing section of this manual for instructions to license your new system.

The following features are available on machines with Typical server installed or Custom installation with the database server component installed.

- **Create FCWnx Database**

    Select this option if you are creating a database *outside* of the normal installation sequence. The database creation process is outlined in the appropriate installation section of this manual for your operating system.

- **Database Maintenance Utility**

    This menu option opens the database backup, restore, and password utilities.

- **Security Configuration**

    Select this option if you need to set the firewall or security settings *outside* of the normal installation sequence.

    Note: The Client menu is detailed in *Logging on to client computer* on page 120.

2. Select **Facility Commander Wnx**.

3. The **Facility Commander Wnx** program starts. The Facility Commander Wnx menu bar displays a **File** and **Help** menu. Log on to access **Facility Commander Wnx.**

Logging on

To log on to the Facility Commander Wnx application:

Note: Default login ID is `secure` and the password is **`SecurityMaster08`** (case sensitive). The language is English.

1. Select the **File** menu and then **Login**.

2. Enter your login ID and password. If this is a client machine, the server computer must be installed, configured, and licensed. The Facility Commander Wnx services must be running on the server computer.

3. Click **OK**.

Note: If logging onto Facility Commander Wnx using a client, you *must* have a valid user name, and password, along with a valid Facility Commander Wnx login ID and password on the server computer. Those login IDs must be part of the SPAdmin local group on the Facility Commander Wnx server computer.

Accessing help

To access the Online Help, select **Online Help** from the Facility Commander Wnx **Help** menu.

You do not have to be logged in to access Help.

Figure 89. Accessing online help
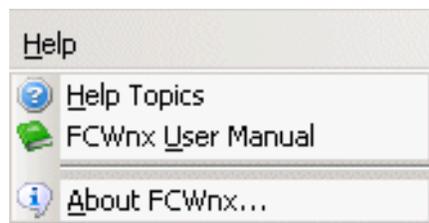
Defining additional user accounts

Adding additional Windows users is **optional** but recommended since this clearly identifies each user in Windows.

Note: If you do choose to add additional users, you must assign them to the group 'SPAdmin' after Facility Commander Wnx is installed.

Adding yourself as an operator in Facility Commander Wnx

To add yourself as an operator in Facility Commander Wnx:

1. Log on using the default login ID, **secure**.

2. Add yourself as an operator in Facility Commander Wnx. This will allow Facility Commander Wnx to track you and the steps you take in setting up the system. To add yourself as an operator, select **Administration** from the Application Group pane, and then **Operator**.

For detailed instructions to configure an operator record, refer to the *Facility Commander Wnx User Manual* or the *Online Help*.

3. Log off and then log on as the new operator.

Initial setup of Facility Commander Wnx records

Refer to the online help as a guideline in setting up your system records. The steps follow a specific sequence that is suitable for a smooth system configuration.

Setting e-mail accounts

Configuring e-mail accounts can be accomplished by selecting **Administration** from the Application Group pane and then **Preference**. On the **Settings** tab, select **Enable** in the **Event Notifier E-mail Support** section. This capability allows you to notify an e-mail account when incoming Facility Commander Wnx alarms are received. Refer to the Facility Commander Wnx Online Help for details of this option.

Changing the Facility Commander Wnx server computer name

This section is provided for changes to the computer name, as applicable to your configuration:

- In a Typical installation, to the database server computer.
- In a Custom installation that has the database server, file server, and FCWnx client application installed on the same computer.

For any other scenario, you *must* consult GE Security Customer Support for assistance.

You need to change the computer name in three areas:

1. In **System Properties**
2. Using the **SPServer.exe** utility
3. Using **SQL Server Management Studio**

Details are included in the following sections.

1. Server computer name in system properties

Note: These instructions assume that you are at the server computer of a Typical installation. All database and server components and the Facility Commander Wnx application are on the same computer. If your database and server components and application are on separate and different computers, call GE Security Customer Support for assistance.

To change the server computer name in the Windows operating system:

Note: You must be at the database server computer.

1. Stop Facility Commander Wnx services.

2. Windows XP Professional:

 - Right-click the **My Computer** icon on your desktop, and then click **Properties.**
 - Select the **Computer Name** tab from the System Properties window.

3. Windows Vista:

 - Click **Start**, right-click **Computer**, and then click **Properties.**
 - In the **Computer name, domain, and workgroup settings**, click **Change settings**. Select the **Computer Name** tab from the System Properties window.

4. Enter the new name of the server computer. It should consist of a maximum of 15 alphanumeric characters with no spaces.

5. Click **Change** to open the **Computer Name Changes** window. You can change the name and the membership of your computer. Changes may affect access to network resources. Click **OK** or **Cancel** to return to the **System Properties** window.

6. Click **Apply** and then click **OK.** You will be asked to restart your computer. Select **Yes**.

2. Server computer name change using the SPServer.exe utility

Note: These instructions must be followed on every computer in your Facility Commander Wnx system, including the server computer.

This step changes the computer name for the Facility Commander Wnx application. FCWnx has a utility to assist you in changing your server computer name. To change the server computer name:

1. Stop Facility Commander Wnx services. If you need assistance, review *Facility Commander Wnx services overview* on page 126.

2. Navigate to the FCWnx folder of your server computer. The default is Program Files\GE\FCWnx.

3. Double-click the **SPServer.exe** file. The **FCWnx Server Name Definition** window displays similar to *Figure 90* on page 131.

Figure 90. FCWnx Server Name Definition window
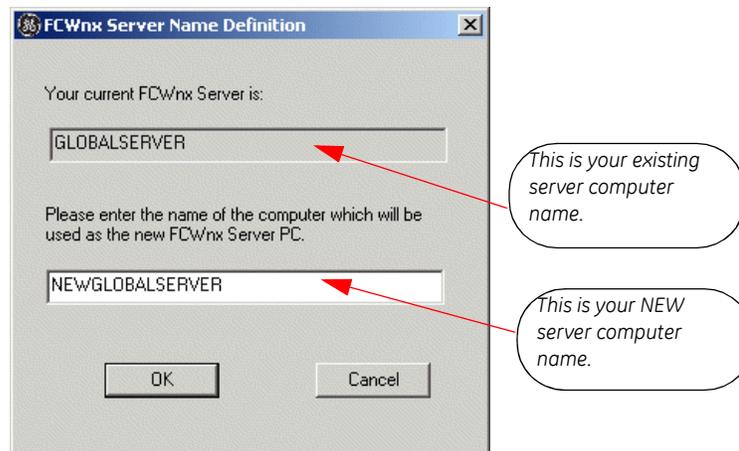
4. Your EXISTING server computer name displays as a read-only field. Ignore this field.

5. Enter the NEW server computer name in the appropriate field.

6. Click **OK**. A **Server Name Definition** dialog box displays an update message similar to the following:

Figure 91. Server Name Definition Update message

7. Click **OK** to close this window.

8. Relicense your Facility Commander Wnx system at this time.

   If the computer has not changed, just the computer name, you can use your existing license key provided at the time you purchased your system.

   If the computer has changed, your system needs to be relicensed with a NEW license key. Be prepared to obtain a new license from GE Security. Refer to *Generating a registration key* on page 92.

9. Click **OK**.

10. Proceed to change the server computer name on all clients in your Facility Commander Wnx system, repeating the steps beginning with *Server computer name in system properties* on page 130.

Note: Remember to change the client name in the Facility Commander Wnx application, Client table.

3. Re-creating a Microsoft SQL Server registration

This step changes the computer name for the Microsoft SQL Server program.

Microsoft SQL Server 2005/2008

1. Click **Start**, **Programs**, **Microsoft SQL Server 2005 or 2008,** and then **SQL Server Management Studio**.

2. At the Connect to Server dialog, connect to your SPSQL instance.

3. Select, then right-click your computer name and SPSQL instance.

4. Select **Register**.

5. In the server name field, enter the new name of the server computer and then click **Save**.

Figure 92. Register Server

6. Click the **Server** drop-down list to display the list of server names in your Facility Commander Wnx network system. Your newly created server name should display on this drop-down list. Select your new server name.

7. Select **Connect**. The password fields are now available for entry.

8. Enter the 'sa' login name and 'sa' password.

9. Do not change any other selections.

10. Click **OK**. The new server name displays in your Microsoft SQL Server Management Studio navigation tree similar to *Figure 93* on page 134.

Figure 93. SQL Server Enterprise Manager navigation tree
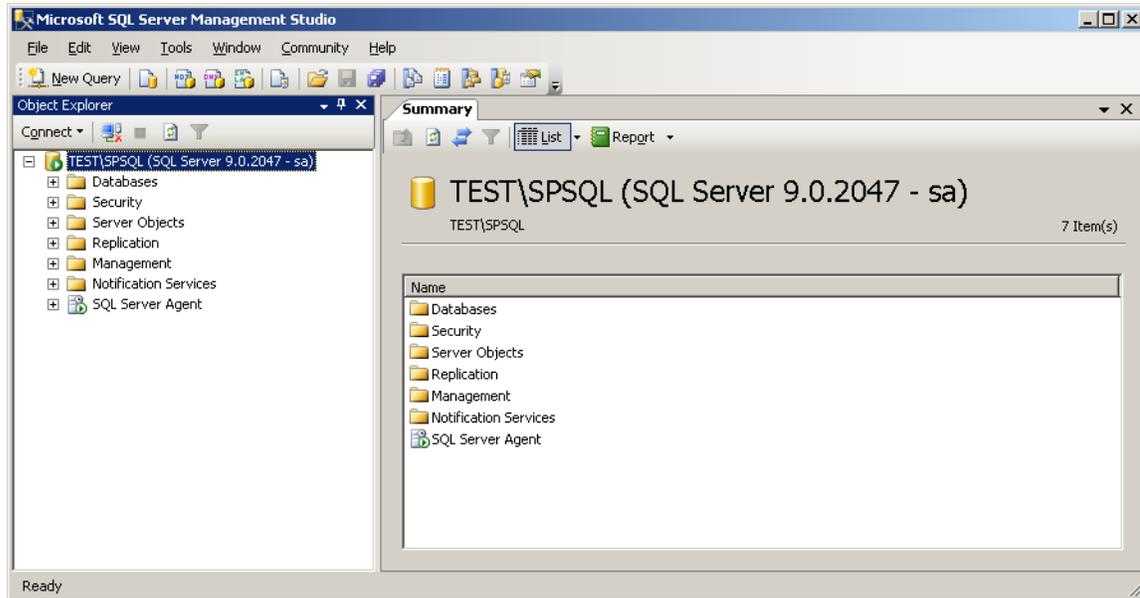
11. Close the Microsoft SQL Server Management Studio.

Chapter 8   Logging off and shutting down

This chapter details the process of exiting, logging off, or shutting down Facility Commander Wnx and your computer.

In this chapter:

Exiting Facility Commander Wnx

When exiting **Facility Commander Wnx**, you have two options:

- Exit

  Exit logs off the operator and shuts down the **Facility Commander Wnx** client application.

- Log Off

  Log off allows an operator to log off and another operator to log on without exiting the program.

Quitting Facility Commander Wnx application

You have the option of logging off without shutting down the computer. In this case, the Facility Commander Wnx services are still running. However, you will not receive any alarm notifications. To receive these notifications, you need to have the Facility Commander Wnx client application running. If you select the option to receive notifications on the **Client Form**, you need to be logged in to the Facility Commander Wnx client application. The alarm notification displays based on the operator's facility assignment which is evaluated upon login to the Facility Commander Wnx application.

Shutting down

⚠️ **CAUTION:**   You can cause serious damage to your computer if you do not follow the procedure above. In fact, the resulting damage may require that you reload all the software on your computer.

To do a total shutdown of Facility Commander Wnx and your computer:

1. Exit the Facility Commander Wnx client application by selecting **Exit** from the **File** menu. Enter your password in the **Password** field of the **Exit** window and click **OK**.

2. From the Desktop, click **Start**, then **Shut Down**.

3. From the **Shut Down Windows** form, select the **Shut down** option and click **OK**.

Logging off of Windows

To log off:

1. Exit Facility Commander Wnx by selecting **Exit** from the **File** menu. Enter your password in the **Password** field of the **Exit** window and click **OK**.

2. From the Desktop, click **Start**, then **Shut Down**.

3. From the **Shut Down Windows** form, select **Log off xxxx** (where **xxxx** is the user name that was used to log on.) Click **OK**.

4. This logs off the current user and allows another user to log on. Keep in mind that the Facility Commander Wnx services are still running but you will not receive any alarm notifications.

Note: Also see *Facility Commander Wnx services overview* on page 126, for additional information relating to Facility Commander Wnx services.

Automatic client shutdown

Services will automatically shut down if this option is selected on the Client Form (unless you disable Auto Shutdown on the Parameter Form) when a client closes the Facility Commander Wnx application and meets all of the following criteria:

1. Does not host any controllers or DVRs.

2. Does not have any API connections.

3. Does not host a thin client.

4. Is not a backup client for or have any backup clients of its own.

5. Is not a CCTV client.

6. Does not host a guard tour.

The shutting down of a particular client computer designates that license capacity unused. Now, that license is available for another computer that can now be designated a Facility Commander Wnx client.

Chapter 9 Back up and restore your Enterprise server

This chapter provides information for system administrators to archive, back up, and restore the Facility Commander Wnx Enterprise system.

In this chapter:

Overview

What's the difference between archiving and backing up?

- **Archiving** creates a copy of the latest history transactions. You will still need to back up the archive file in order to maintain a copy. Refer to the Facility Commander Wnx Online Help or the *Facility Commander Wnx User Manual* on the Documentation disc for details of this function.
- **Backing** up creates a copy of selected data, such as a database or archive, and stores it either on the computer or on another media, such as tape, zip discs, CD/DVD, or a network folder.

Enterprise system recovery checklist

If your system or hard drive crashes, your database may be determined to be beyond repair. Follow a sequence of steps to recover your system.

To assist you in recovering your Facility Commander Wnx Enterprise system, refer to this checklist. Complete the steps in the order they are listed here.

- Install Windows 2003 or Windows 2008 Server operating system. Install applicable operating system service packs. (Refer to *Chapter 2 Windows Server 2003/2008 Standard and Enterprise Edition Server setup*.)
- Install SQL Server 2005 or SQL Server 2008. (Refer to *Installing Microsoft SQL Server* on page 13.)
- Install Facility Commander Wnx software from the installation disc. (Refer to *Chapter 3, Installing Facility Commander Wnx Enterprise Edition Server* on page 27.)
- Using SQL Server 2005 or SQL Server 2008 Management Studio, restore the three Facility Commander Wnx databases from your backup media (SecurePerfect, SecurePerfectHistory, and SecurePerfectArchive). (Refer to *Restoring* on page 143.)
- Restore the Images, Signature, Graphics, Designs, and Video folders from your backup media to the appropriate folders. (Refer to *Restoring the Facility Commander Wnx folder* on page 146.)
- If restoring to a different server computer with a different server name, you will need to run a script to reset the database security. Refer to *Changing the Facility Commander Wnx server computer name* on page 130. Follow the steps in the order they are listed.
- Run the licensing program, Facility Commander Wnx License, and enter your 35-character license key string. (Refer to *Chapter 4, License and configure security settings for your FCWnx system* on page 91.)
- Restart the computer.

Backing up

A backup is a copy of selected data. Since Facility Commander Wnx does not contain a backup option, you can use any method you like to back up the data.

Note: Using SQL Server Enterprise Manager, backups can be scheduled so that you do not have to remember to back up your databases.

You should keep two backups of the server computer, as follows:

1. Facility Commander Wnx data to include the elements in *Table 31*.

Table 31. Facility Commander Wnx data include the following

Element	Description
Main Database	Contains configuration data, such as credentials and controllers.
History Database	Contains current history including credential transactions and operator history.
Archive Database	Contains copies of **Facility Commander Wnx** history data based on archive period.
Externals	A shared, empty folder created to store reports created by third party report generators.
Designs	Contains the credential design files. The Designs folder is located in the Facility Commander Wnx folder.
Images	Contains the picture files of credential holders. The Images folder is located in the Facility Commander Wnx folder.
Signature	Will only need to be backed up if you have Imaging installed. Contains the signature files of credential holders. The Signature folder is located in the Facility Commander Wnx folder.
Graphics	Will only need to be backed up if you are using Alarm Graphics. Contains the alarm graphics maps. The Graphics folder is located in the Facility Commander Wnx folder.
Video	A shared folder that contains captured video files.

You should back up this data more often since it changes so frequently. While your internal policies may dictate your backup requirements, we recommend that you create a backup at least every week.

2. Entire **Facility Commander Wnx** installation.

The entire **FCWnx** folder should be backed up when you first set up the system and have confirmed that it is working, and any time you upgrade. It is very important that you also back up the registry settings. In most backup programs, you will be prompted to back up these settings.

Always maintain a current backup. If you have any problems with your system, you are able to restore your backup. This includes your databases as well as your files.

Backing up the databases

There are three databases:

*   **SecurePerfect** database contains configuration data, such as credentials and controllers. It should be backed up on a continual basis since the information may change frequently.
*   **SecurePerfectArchive** database contains copies of Facility Commander Wnx history data. It should be backed up on a continual basis since the information will change frequently based on your archive interval set on the Preference form.
*   **SecurePerfectHistory** database contains current history including credential transactions, alarm transactions, and operator history. It should be backed up on a continual basis since the information may change frequently.

Using SQL Server to back up databases

Before you back up your database:

1. Verify that you have the correct permission level to access the database. We recommend logging on as Administrator 'sa' or whatever the current Administrator login assigned at installation.

2. Click **Start**, **Programs**, **Microsoft SQL Server 2005 or 2008**, and then **SQL Server Management Studio**.

3. At the **Connect to Server** window, verify that the **Login** and **Password** are correct, then click **Connect**.

4. Navigate to and open the Databases folder. This procedure may take several minutes.

Note: Although there are other methods, we have included the following steps as a guide to assist you in performing one type of backup.

To back up your database:

1. Right-click the database (**SecurePerfect**, **SecurePerfectArchive**, or **SecurePerfectHistory**) you want to back up. The shortcut menu displays.

2. Click **Tasks**, then **Back Up**. The **Backup Database** dialog box displays.

3. In the **Backup type** drop-down box, select **Full**.

4. In the **Name** field, you can keep the default or choose a different name.

5. Under the **Destination**, you can choose either **Disk** or **Tape**.

6. Edit the file path name as appropriate for the folder that you have created to receive the database. Do not change the database name. Click **OK**.

   If backing up:

   • the SecurePerfect database, *do not* change the database name.
   • either SecurePerfectArchive or SecurePerfectHistory, you *must* change the file name each time you back up or the file is overwritten!

   Note: We recommend that you select the device or a file on a network.

7. In the **Select a page** pane, click on **Options** to display the **Options** page.

8. You may select either **Overwrite all existing backup sets** or **Append to the existing backup set**. The latter option is useful when using a tape that can hold a large quantity of data. We recommend that you append to the file.

9. You can schedule the backup. We recommend that you refer to the SQL Online Help for more information.

10. We recommend that you select **Verify backup when finished** option to guarantee that you perform a good backup.

11. Click **OK** to start the backup.

12. When the **Backup operation has been completed successfully** window displays, click **OK**.

13. If you are backing up more than one database at this time, repeat the steps in this section each database you want to back up.

Backing up Facility Commander Wnx folders

We recommend that you back up the following folders. If you purchased your system from GE Security, then your system contains a CD/DVD-RW drive that can be used for backup purposes.

- Designs
- Externals
- Graphics
- Images
- Signatures
- Videos

1. In Microsoft Explorer, navigate to the Facility Commander Wnx program folder. Select the Designs, Externals, Graphics, Images, Signature, and Video folders.

2. Copy the folders to your backup media.

Backing up the entire Facility Commander Wnx folder

The entire **Facility Commander Wnx** folder should be backed up when you first set up the system and have confirmed that it is working, and any time you upgrade.

Refer to the *Backing up Facility Commander Wnx folders* on page 143 for specific instructions on backing up to CD/DVD-RW drives and tape drives.

Restoring

How you restore depends on how you backed up the system. **What** you should restore is detailed below.

1. Restoring your **SecurePerfectArchive** will happen more frequently than other restores in order to run reports.

2. Restoring your **SecurePerfect** database and **SecurePerfectHistory** should *only* be done if you are having problems with your system or if you are upgrading.

3. Restoring your entire Facility Commander Wnx folder should *only* be done if you are having problems with your system.

Restoring SecurePerfectArchive database

You may need to restore backups of your archive more frequently in order to run reports on that data.

These restoration procedures are guidelines only. Additional detailed information is located in the literature received with the SQL Server software and Help system.

Using SQL Server to restore the SecurePerfectArchive backup

Before you restore the SecurePerfectArchive backup:

1. Verify that all Facility Commander Wnx network clients other than the Enterprise server computer have logged off and that the Facility Commander Wnx services are shut down.

2. Back up your current archive. See *Backing up the databases* on page 141.

3. We recommend that you select the **Options** tab, then select **Verify backup upon completion** option to guarantee that you perform a good backup.

To start the restore of the SecurePerfectArchive database backup:

1. Click **Start**, **Programs**, **Microsoft SQL Server 2005** or **2008**, and then **SQL Server Management Studio.**

2. At the **Connect to Server** window, select your FCWnx server, verify the password, then click **Connect**.

3. Navigate to the Databases folder.

4. In the **Databases** folder, right-click **SecurePerfectArchive** to display the shortcut menu.

5. Select **Tasks**, **Restore,** then **Database**. The **Restore Database** dialog box should be displayed. If not, select it.

6. In the **To database** field, select SecurePerfectArchive.

7. Select **From device** and click **...** to display the Specify Backup window**.**

8. Click **Add** and navigate to the backup file. Click **Ok**.

   If the backup file is on another computer in your network, create a folder on your computer, then move the file to your FCWnx computer into the newly created folder.

   The one file to be restored should look similar to:
   c:\Program Files\Microsoft SQL Server\Backup\SecurePerfectArchive-db-200007140007.BAK

9. Click **OK** to close the Specify Backup window.

10. Select the backup set you just added by checking the Restore check box.

11. In the **Select a page** navigation pane, select **Options**.

12. In the **Restore options** section, select **Overwrite the existing database**.

13. Click **OK**. The Progress windowpane shows the progress of the restoration.

14. Upon completion, a dialog box displays with a message stating the database was restored successfully. Click **OK** to close the dialog box.

15. Continue with *Restoring SecurePerfect database* on page 144, if necessary.

Restoring SecurePerfect database

You should restore the Facility Commander Wnx SecurePerfect database backup *only* if you have problems with your Facility Commander Wnx system and all other attempts to correct the system have failed.

These restore procedures are guidelines only. Additional detailed information is located in the literature received with the SQL Server software and Online Help

Using SQL Server to restore the SecurePerfect backup

1. Verify that all **Facility Commander Wnx** network clients other than the Enterprise server computer have logged off and that the Facility Commander Wnx services are shut down.

2. Click **Start**, **Programs, Microsoft SQL Server 2005** or **2008**, and then **SQL Server Management Studio.**

3. At the **Connect to Server** window, select your FCWnx server, verify the password, then click **Connect**.

4. Navigate to the Databases folder.

5. In the **Databases** folder, right-click **SecurePerfect** to display the shortcut menu.

6. Select **Tasks**, **Restore,** then **Database**. The **Restore Database** dialog box should be displayed. If not, select it.

7. In the **To database** field, select SecurePerfect.

8. Select **From device** and click **...** to display the Specify Backup window**.**

9. Click **Add** and navigate to the backup file. Click **Ok**.

    If the backup file is on another computer in your network, create a folder on your computer, then move the file to your FCWnx computer into the newly created folder.

    The one file to be restored should look similar to:
    c:\Program Files\Microsoft SQL Server\Backup\SecurePerfect.BAK

10. Click **OK** to close the Specify Backup window.

11. Select the backup set you just added by checking the Restore check box.

12. In the **Select a page** navigation pane, select **Options**.

13. In the **Restore options** section, select **Overwrite the existing database**.

14. Click **OK**. The Progress windowpane shows the progress of the restoration.

15. Upon completion, a dialog box displays with a message stating the database was restored successfully. Click **OK** to close the dialog box.

16. Continue with *Restoring SecurePerfectHistory* on page 145, if necessary.

Restoring SecurePerfectHistory

You should restore the SecurePerfectHistory backup *only* if you have problems with your Facility Commander Wnx system and all other attempts to correct the system have failed.

These restore procedures are guidelines only. Additional detailed information is located in the literature received with the SQL Server software and Help system.

Using SQL Server to restore the SecurePerfectHistory backup

1. Verify that all Facility Commander Wnx network clients other than the Enterprise server computer have logged off and that the Facility Commander Wnx services are shut down.

2. Click **Start**, **Programs**, **Microsoft SQL Server 2005,** or **2008**, and then **SQL Server Management Studio.**

3. At the **Connect to Server** window, select your FCWnx server, verify the password, then click **Connect**.

4. Navigate to the Databases folder.

5. In the **Databases** folder, right-click **SecurePerfectHistory** to display the shortcut menu.

6. Select **Tasks**, **Restore,** then **Database**. The **Restore Database** dialog box should be displayed. If not, select it.

7. In the **To database** field, select SecurePerfectHistory.

8. Select **From device** and click **...** to display the Specify Backup window**.**

9. Click **Add** and navigate to the backup file. Click **Ok**.

    If the backup file is on another computer in your network, create a folder on your computer, then move the file to your FCWnx computer into the newly created folder.

    The one file to be restored should look similar to:
    c:\Program Files\Microsoft SQL Server\Backup\ SecurePerfectHistory-db-200007140007.BAK

10. Click **OK** to close the Specify Backup window.

11. Select the backup set you just added by checking the Restore check box.

12. In the **Select a page** navigation pane, select **Options**.

13. In the **Restore options** section, select **Overwrite the existing database**.

14. Click **OK**. The Progress windowpane shows the progress of the restoration.

15. Upon completion, a dialog box displays with a message stating the database was restored successfully. Click **OK** to close the dialog box.

16. Continue with *Restoring the Facility Commander Wnx folder* on page 146, if necessary.

Restoring the Facility Commander Wnx folder

How you restore depends on how you backed up the system.

To restore from CD/DVD-RW drive:

1. In Microsoft Windows Explorer, navigate to the Facility Commander Wnx program folder.

2. Copy the selected folders from your backup media to your Facility Commander Wnx folder. You may need to deselect the **Read-Only** attribute on the folder's properties.

Reclaiming hard drive space

In time, you will notice that the database continues to use more and more hard drive space. Some of this space can be reclaimed by shrinking the database. Refer to your SQL server documentation for details and available options.

Chapter 10 Uninstall Facility Commander Wnx or delete a database

This chapter outlines instructions for removal of software and deleting a database.

In this chapter:

Uninstalling Facility Commander Wnx software

Before you begin

Before you uninstall Facility Commander Wnx, make sure that:

- All clients are logged off.
- All Facility Commander Wnx applications, such as DiagView, are closed.
- All Facility Commander Wnx services are stopped. Refer to *Facility Commander Wnx services overview* on page 126.

Uninstalling

Uninstalling Facility Commander Wnx

1. Log on as someone with administrative privileges, such as **administrator**.

2. Click **Start**, **Control Panel**, and then **Add/Remove Programs**.

3. From the list of currently installed programs that display, select **Facility Commander Wnx 7.5**.

4. Click **Remove.** The Add or Remove Programs window opens asking you to confirm the action. Click **Yes**.

5. Uninstall begins and a status bar indicates the uninstall progress. Once the uninstall begins, the **Cancel** button is unavailable.

6. When uninstall is complete, click **Finish**, then exit the **Add/Remove Programs** window and the **Control Panel**.

The database and log files are not removed during the uninstall of Facility Commander Wnx on the server computer.

If the uninstall does not proceed (hangs), do the following:

1. Press Ctrl-Alt-Delete. The Windows **Security Dialog** opens.

2. Click **Task Manager**.

3. At the **Task Manager** window, **Facility Commander Wnx 7.5** will display a status of **Not Responding**.

4. Select the line **Facility Commander Wnx 7.5** and click **End Task.**

5. At the next dialog, click **End Task** again.

Verifying and cleaning up after an uninstall

You may encounter problems while uninstalling from a server computer. Sometimes, this results in an incomplete uninstall which means miscellaneous files are left behind. If you did encounter problems, the sections that follow detail some troubleshooting steps to assist you in troubleshooting your uninstall. The first step is to verify that Facility Commander Wnx uninstalled cleanly. Refer to *Verifying Facility Commander Wnx uninstalled cleanly* on page 149.

Verifying Facility Commander Wnx uninstalled cleanly

Check the Facility Commander Wnx folder and verify that the Database and Logs folders are the only items left.

To verify a Facility Commander Wnx uninstall:

1. Go to Windows Explorer and navigate to your Facility Commander Wnx folder. The default setting is Program Files\GE\FCWnx.

2. You should see the Database and Logs folders only. If you see any other files, select them and click **Delete**.

3. Next, continue with *Deleting the database*.

Deleting the database

> ⚠️ **CAUTION:** The following steps cannot be done if you have already uninstalled Microsoft SQL Server software.

Facility Commander Wnx Enterprise Server

As we have mentioned earlier, the database is not removed when you uninstall Facility Commander Wnx from the server computer.

> ⚠️ **CAUTION:** Make a backup of your database before performing these steps!

SQL Server

To delete the database from the Facility Commander Wnx Enterprise Server:

1. Click **Start**, **Programs**, **Microsoft SQL Server 2005** or **2008**, and then **SQL Server Management Studio**.

2. At the **Connect to Server** window, verify that the **Login** and **Password** are correct then click **Connect**.

3. Locate and open the Databases folder.

4. Right-click **SecurePerfectHistory** to display the shortcut menu.

5. At the menu, select **Delete**.

6. The **Delete Object** window opens. Click **Ok** to delete this database.

7. Right-click **SecurePerfectArchive** to display the shortcut menu.

8. Select **Delete**.

9. The **Delete Object** window opens. Click **Ok** to delete this database.

10. Right-click **SecurePerfect** to display the shortcut menu.

11. Select **Delete**.

12. The **Delete Object** window opens. Click **Ok** to delete this database.

13. From the Microsoft SQL Server Management Studio main menu, select **File**, then **Exit**.

Removing Microsoft SQL Server

MS SQL Server 2005 or 2008 Standard Edition

> ⚠️ **CAUTION:**   Removing Microsoft SQL Server will delete all Facility Commander Wnx databases.

If you are required to remove Microsoft SQL Server software due to file corruption beyond recovery, you will need to perform the following:

1. Stop SQL Server services.

2. Stop any applications that are currently using SQL Server software.

3. Back up your database files. See *Overview* on page 140.

To uninstall Microsoft SQL Server software:

1. Click **Start**, select **Settings**, **Control Panel**, and then **Add/Remove Programs**.

2. On the **Add/Remove Program Properties** page, select **Microsoft SQL Server 2005** or **2008**.

3. Click **Remove**.

4. You will receive a **Microsoft SQL Server 2005 or 2008 Uninstall** popup window asking you to select the components to remove. Select the items to remove, then click **Next**.

5. A Confirmation window opens listing the items you selected to remove. Click **Finish** to start the uninstall.

6. You are returned to the **Add/Remove Programs** window.

7. Restart the server computer.

Chapter 11 Troubleshooting, maintenance, support

This chapter provides information to help you troubleshoot problems and contact technical support in case you need assistance with your GE Security equipment.

In this chapter:

Troubleshooting

This section provides information to help you diagnose and solve various problems that may arise while configuring or using your GE Security product and offers technical support contacts in case you need assistance. (See *Contacting technical support* on page 155.)

Installing FCWnx

Symptom: A message displays similar to the following:

```
Some programs will not install correctly if you do not have administrative
privileges on this computer.
```

Solution: You are logged in as a user who does not belong to the Administrators group. The FCWnx software can only be installed by a user who belongs to the Administrators group. Log off, then log on as a user who belongs to the Administrators group or add the user to the Administrators group.

Database creation errors

Symptom: A message displays similar to the following:

Figure 94. Database Creation Error
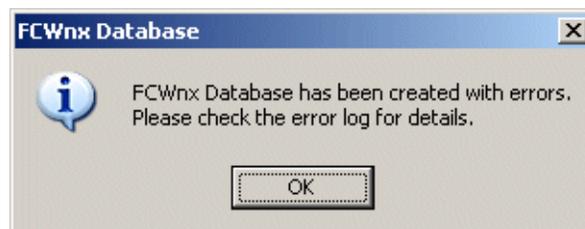
Solution: Review the `SPCreateDB.txt` error log and correct any installation configuration problems.

- If you were able to resolve the problem, recreate the database.
- If you continue to have a problem, contact GE Security Customer Support.

Networking connection issues

Symptom: I lost my network connection. How do I test and reconnect?

Solution: If you lost, cannot see, or cannot change your network connection, you can re-register the `Netshell.dll` file by following theses steps:

1. Click **Start** and then **Run**.

2. In the Open field, enter: `regsvr32%systemroot%\system32\netshell.dll`

3. Click **Ok** to display the following:

4. Click **OK**.5

5. Verify that you can open the properties of your network connection in the Network connections folder of your computer.

6. Check your connection.

- If the issue is resolved and connection to resources is restored, you do not have to perform the following steps.
- If the issue persists and you receive an error message, you can re-register the `ole32.dll` file by following these steps:

7. Click **Start** and then **Run**.

8. In the Open field, enter: `regsvr 32 %systemroot%\system32\ole32.dll`

9. Click **OK** to display the following:

10. Click **OK**.

11. Restart your computer.

Installing and uninstalling

Uninstalling FCWnx

If the uninstall does not proceed (hangs), follow the instructions below:

1. Click **Ctrl**-**Alt**-**Delete**.

2. The **Windows Security** dialog opens.

3. Click **Task Manager**.

4. At the **Task Manager** window, **Install** displays a status of **Not Responding**.

5. Select the line **Uninstall** and click **End Task**.

6. At the next dialog, click **End Task** again.

7. Once the steps above are completed, continue with the next section, *Verifying and cleaning up after an uninstall* on page 154.

Verifying and cleaning up after an uninstall

You may encounter problems while uninstalling from a server computer. Sometimes, this results in an incomplete uninstall which means miscellaneous files are left behind. If you did encounter problems, the sections that follow detail some troubleshooting steps to assist you in troubleshooting your uninstall. The first step is to verify that Facility Commander Wnx uninstalled cleanly. Refer to *Verifying FCWnx uninstalled cleanly* on page 154.

Verifying FCWnx uninstalled cleanly

Check the Facility Commander Wnx folder and verify that the Database and Logs folders are the only items left.

To verify a Facility Commander Wnx uninstall:

1. Go to Windows Explorer and navigate to your Facility Commander Wnx folder. The default setting is Program Files\GE\FCWnx.

2. You should see the Database and Logs folders only. If you see any other files, select them and click **Delete**.

3. Next, continue with *Deleting subkeys from the registry*.

Deleting subkeys from the registry

⚠️ **CAUTION:** Using the Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Neither GE Security nor Microsoft guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk!

To delete the GE Security subkey from the registry:

1. Click **Start**, then **Run**.

2. At the **Run** window, enter: `regedit`

3. Click **OK**.

4. Locate the **HKEY_LOCAL_MACHINE** key.

5. Double-click the **SOFTWARE** icon to expand the folder tree.

6. If you have a **GE** key, select in the Registry, and click **Delete**.

   • If you have a problem deleting the GE Security key, you may need to change the registry permission. Refer to *If you have a GE Security key and need to change permission for the registry:*.

   • If you do not have a GE Security key, this is an indication that the deletion proceeded well. Continue with step 8.

   You are asked to confirm the deletion.

7. Click **Yes**.

8. From the main menu, select **Registry**, then **Exit**.

9. Restart your computer at this time.

If you have a GE Security key and need to change permission for the registry:

⚠️ **CAUTION:** Using the Registry Editor incorrectly can cause serious problems that may require you to reinstall your operating system. Neither GE Security nor Microsoft guarantee that problems resulting from the incorrect use of Registry Editor can be solved. Use Registry Editor at your own risk!

1. Click **Start**, then **Run**.

2. At the **Run** window, enter: `regedt32`

3. Click **OK**.

4. Locate the **HKEY_LOCAL_MACHINE** key.

5. Double-click the **SOFTWARE** icon to expand the folder tree.

6. Select **GE**.

Note: If GE is not there, do not proceed. Check with your Information Systems Department.

Registry permission validation

1. From the main menu, select **Edit**, then **Permissions**.

2. In the **Group or user names** window, locate and select **SPAdmin**.

3. Click **Advanced**.

4. Select the **Allow inheritable permissions from the parent to this object and all child objects. Include these with entries explicitly defined here** check box.

5. Click **Apply**, then click **Ok**.

6. In the **Permissions** portion of the **Security** window, select **Allow** for **Full Control**. Click **Apply**, then click **OK**.

7. From the main menu, select **Registry**, then **Exit**.

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 presales and technical support.

For presales and technical support assistance, we provide customers with several options (see *Table 32*). Our support phone number is available Monday through Friday, 8 a.m. to 8 p.m.Eastern Time. Protection plans are available for extended coverage.

Table 32.   Sales and support contact information

	Presales	Technical support
Phone:	United States: 1-800-428-2733	United States: 1-888-GE SECURITY (1-888-437-3287) Asia: 852-2907-8108 Australia: 61-3-9259-4700 Europe: 48-58-326-22-40 Latin America: 305-593-4301 Be ready at the equipment before calling.
Fax	United States: 1-561-998-6160	United States: 1-561-998-6244
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 product is our online publication library, available to all of our customers. To access the 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. After you register and log on, you may search through our online library for the documentation you need.[1]

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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.

Appendix A UL certification requirements

This chapter provides a list of installation requirements necessary for a UL Listed Facility Commander Wnx system.

In this appendix:

UL specifications and requirements

Facility Commander Wnx is a UL Listed system (*UL 1076 Proprietary Burglary Requirements/UL 294 Access Control Requirements*). You must adhere to the following requirements in a UL Listed installation:

1. The computer and monitor shall be completely duplicated. Provision for switchover within 6 minutes is required (30 seconds for manual transfer of cables and 5 minutes 30 seconds for the system boot sequence).

2. Compatibility has been verified with the following protected premise-control units:

    *   ACU2X, ACU2XL8, ACU2XL16, ACURS02, ACURS04, ACUX16
    *   M5, M3000, and Micro/2000 using a PXN or PXNplus CPU board
    *   DirecDoor

3. The system shall be connected to a listed surge suppressor with a maximum marked rating of 330 volts.

4. The installation instructions shall specify signal line transient protection complying with the *Standard for Protectors for Data Communications and Fire Alarm Circuits, UL 479B*, with a maximum marked rating of 50 volts.

5. The equipment shall be installed in a temperature-controlled environment. Twenty-four hours of backup power shall be provided to the HVAC system. The HVAC system shall be capable of maintaining a temperature between 55° and 95° F.

6. The installation instructions shall specify that, in addition to the main power supply and secondary power supply that are required to be provided at the central supervisory station, the system shall be provided with an uninterruptable power supply (UPS) with sufficient capacity to operate the computer equipment for a minimum of 15 minutes. If more than 15 minutes is required for the secondary power supply to supply the UPS input power, the UPS shall be capable of providing input power for at least that amount of time. The UPS shall comply with the *Standard for Uninterruptable Power Supply Equipment, UL 1778*, or the *Standard for Fire Protective Signaling Devices, UL 1481*.

7. A UL Listed printer shall be provided.

8. Signal prioritization shall be set up as follows (from highest to lowest): Alarm, Trouble, Supplementary (such as access control).

9. Polling of a receiving unit must not exceed 200 seconds.

10. Exit and Entry delay must not exceed 60 seconds.

11. Communication between Host and Protected Premise Units must consist of an independent, dedicated, and direct Ethernet line. Communication over LAN and WAN has not been investigated by UL.

12. Elevator Control, DVR, CCTV, Camera functions, and Keypad Alarm Response have not been evaluated by UL.

13. Any communication failure shall be treated as a compromise of the Encrypted Line Security of the proprietary burglar alarm system when installed with NIST validated, Triple DES C module, Version 1.1.

14. The minimum system configuration for the Facility Commander Wnx monitoring equipment consists of a Listed Pentium computer with a minimum CPU speed of 2 GHz, 2 GB RAM, 10 GB HDD, and 10/100 NIC. A color monitor shall also be provided (1024 x 768 resolution, 16-bit color display).

Appendix B Optional hardware and software

This appendix details procedures to follow when installing optional hardware and software to your FCWnx system.

In this appendix:

Installing FCWnx on a thin client terminal server

Note: Your FCWnx software license limits the number of Thin Client installations allowed. Refer to the licensing chapter of your *FCWnx Installation Manual*.

Install Thin Client software on the appropriate computers by following the appropriate installation and configuration instructions for your brand of hardware. Windows documentation provides additional details of virtual workstation technology and Thin Client services installation and access. If you have additional questions, consult your IS Department for assistance.

To install FCWnx on a Thin Client Terminal server computer:

1. Insert the FCWnx installation disc into your CD/DVD drive. A **Terminal Server Install Failure** dialog opens as shown in *Figure 95*.

Figure 95. Terminal server install failure
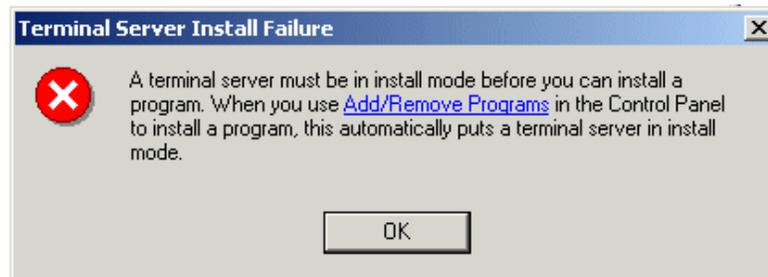
2. Click **OK**. The dialog box closes.

3. If not already displayed, browse to the FCWnx CD content. This is typically D:\

4. Double-click `Terminal.exe` to begin the FCWnx software installation.

5. Continue with "Selecting Installation Type" of your *FCWnx Installation Guide* and proceed with complete FCWnx installation instructions.

Note: Return to this point when the entire installation process is complete.

Following installation of FCWnx on a computer with Thin Client services enabled, a manual restart is required to complete the process. Restart your computer at this time and then proceed to log on.

Following installation of FCWnx

1. Log on to the FCWnx application. Select the **File** menu and then **Login**. For additional details, review , *Chapter 7 Logging on and configuring Facility Commander Wnx*. There are additional system parameters you need to address.

2. Enter your login ID and password.

   Note: Default login ID is `secure` and the password is `master`. The language is English.

   If logging into FCWnx using a client, you *must* have a valid operating system (Windows XP Professional or Vista), user name, and password, along with a valid FCWnx login ID and password on the server computer. Those login IDs must be part of the *SPAdmin* local group on the FCWnx server computer.

3. Click **OK**.

4. Select the **Administration** menu, **Client** option to open the **Client** form. The **Client** form opens with the **Client** tab displayed.

5. In the **Thin Client Status** combination group, select **Enabled**. Thin Client Terminal server installation of FCWnx is now complete.

6. Thin Client software must be installed on all computers that are going to connect to the Thin Client server and access FCWnx.

7. Your FCWnx software license limits the number of Thin Client installations allowed.

Setting up a Digi serial-port expander

Note: If you purchased this system from GE Security, the Digi board is already set up for you.

The Digi serial-port expander is a GE Security approved serial-port expander. The purpose of the Digi serial-port expander is to provide additional COM ports, which are required for wiring direct-connect micros and communicating with dial-up micros using modems.

Note: If you plan on using CCTV devices to interface with FCWnx, you need additional serial ports; therefore, you need a Digi serial-port expander. However, integrated digital video recorders and equipment use an ethernet interface.

To install or change the configuration of the Digi serial-port expander:

1. Shut down the computer and turn the power off. Remove the power cord from the back of the computer. (Stand-by power causes the system to automatically start up on the insertion of a new card of any type into the PCI bus.)

2. Open the computer and install the Digi board into any free PCI slot of the motherboard. Secure the card to the computer chassis.

3. Close the computer case and connect the Digi box to the cable from the Digi board that you just installed.

4. Turn the power on and wait for the computer to restart. If the computer does not restart, manually restart the system at this time. During the boot sequence, Windows detects the Digi serial-port expander and prompts you for the Windows installation disc.

Note: If this is a client computer, during the boot sequence, Windows detects the Digi serial-port expander and prompt you for the Windows installation disc.

5. Insert the Windows installation disc. A screen displays, prompting you for the type of module you have attached to the board.

6. Select **16em** if you are using the 16-port expander box (**16em** is the default setting) or **8em** if you are using the 8-port expander box.

7. Click **Add** then **Next**. You are asked what port number you want to install first, beginning with the first available COM port (usually, COM 4 if an internal modem is installed).

   Note: We recommend starting with COM 5, ending with COM 20 on a **16em** board and COM 12 on an **8em** board.

8. Click **Finish**. The **Ports Configuration** window opens.

9. Click **Next**, then **Finish**. The installation is complete. Shut down and restart the your computer system.

Following installation of the Digi board

1. Check if the COM ports are installed by clicking **Start**, **Programs**, **Administrative Tools**, then **Computer Management**.

2. In the Computer Management window, select **Device Manager** and expand the Ports (COM & LPT) available to your computer. Verify the list of COM ports and numbers that you installed.

Setting up dial-up modems

Note: If you purchased this system from GE Security, the modem is already set up for you.

A dedicated support modem for use by GE Security business and support is highly recommended. Micro modems are used to communicate with dial-up micros. For Micro/5 and PX-2000 modems, we recommend that you lock the baud rate at 9600.

Before a modem can be used with FCWnx, it must be set up in the operating system. Refer to your modem documentation and Windows documentation for more information.

If this modem is to be used to communicate with micros, *you must manually lock the speed of the modem at 9600 baud*.

To lock the speed of the modem at 9600 baud:

1. Click **Start** and then **Control Panel**.

2. From the **Control Panel**, select **Phone and Modem Options**.

3. On the **Modems** tab, select the modem you are using for your micros; click the **Properties** button.

4. In the **Maximum port speed** field, select 9600.

   Note: Not all modems use the exact commands listed in the previous step. If your modem does not use that command, use the definitions below to select the equivalent command.

   &Q0: Selects direct asynchronous operation and turns off error correction, data compression, and automatic speed buffering (ASB).

   S37: Selects the speed that your modem uses to attempt a connection with the remote modem. This is the data transmission speed across the telephone line from modem to modem. If the remote modem does not support the speed specified by S37, your modem attempts to connect at the next lower speed. This continues until a connection is made, the options are exhausted, or the remote modem times out.

   =9: 9600 bits/second

   If you have problems at 9600, you can try a lower baud rate:

   =8: 4800 bits/second
   =7: 2400 bits/second

5. Click **OK**.

6. Click **OK** again.

7. Click **Close**.

Appendix C CCTV interfaces

This appendix provides information for installation and configuration of CCTV interfaces.

In this appendix:

Overview

The CCTV interface system operates separately from FCWnx and requires its own hardware and software. This document details the process of installing CCTV interfaces, including setup and configuration. It also contains information for the operating system once the interface is installed.

Integrated digital video surveillance configuration and management are detailed in the *FCWnx User Guide*.

Software requirements

For the CCTV system, you must have one of the following:

- For the American Dynamics™ system: None
- For the Burle Allegiant® system: Allegiant LTC 8359/00 Master control software
- For the Kalatel® system: None
- For the Pelco® system: None

For the **FCWnx** system

- FCWnx CCTV interface program
- FCWnx software

American Dynamics system

The FCWnx - American Dynamics interface supports the American Dynamics controller.

The FCWnx - American Dynamics interface provides the capability to automatically control American Dynamics CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or "mapped" to the appropriate CCTV cameras set up in American Dynamics. When FCWnx receives the mapped alarm, FCWnx sends a message to the American Dynamics system to turn on the linked CCTV cameras and monitors. The American Dynamics system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the FCWnx Alarm Monitor form, or when the FCWnx alarm resets, the American Dynamics system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration, follow these steps:

1. Set up the FCWnx system and the American Dynamics system or verify the setup if this is an existing system. *Figure 96* provides a basic example of the hardware setup. See *"Software requirements" on page 164* and *"Hardware requirements" on page 165* for more information.

2. Install the FCWnx - American Dynamics software on the desired FCWnx computer. *See "Installation: American Dynamics" on page 166*.

3. Add CCTV alarms and then link or "map" the desired FCWnx alarms to the appropriate CCTV cameras set up in American Dynamics. *See "Configuring alarms" on page 167* and *"Monitoring" on page 184*.

4. Once the FCWnx and American Dynamics systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 96. Overview of the FCWnx and American Dynamics interface

530117001B
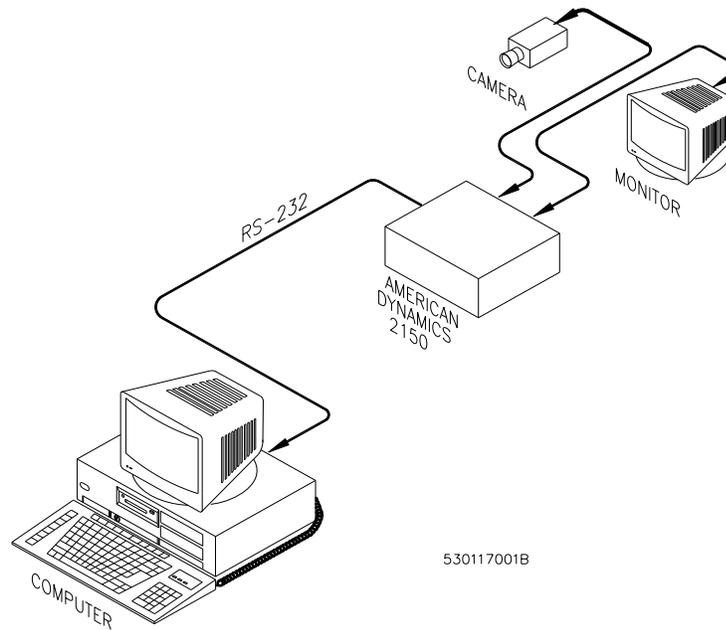
Hardware requirements

For the American Dynamics system

For the American Dynamics system:

- AD 2150 controller provided by American Dynamics
- CCTV cameras and monitors
- Cable to connect the FCWnx system and the American Dynamics switches.

Figure 97. Cable pinouts: terminal block to DB25F and terminal block to DB9F
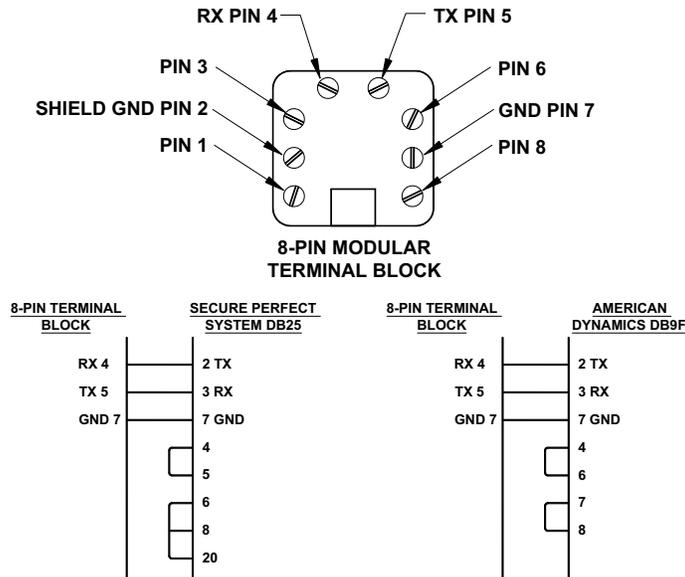
For the FCWnx system

- FCWnx computer

  Refer to *"Installation: American Dynamics" on page 166*.

Installation: American Dynamics

This interface program has a separate install utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - American Dynamics program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your American Dynamics manual for DIP switch settings. They should be set to the default settings.

To install FCWnx - American Dynamics:

1. You *must* be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.

   Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

2. Click **Start**, then **Run**.

3. From the Run window, click **Browse**.

4. In the 'Look in 'field, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory in which FCWnx is installed. The default is Program Files\GE\FCWnx.

5. Select the `CCTVInstall.exe`.

6. Click **Open**.

7. In the Run window, click **OK**.

8. Provide the appropriate answers to prompts and click **Next** to continue.

   During installation, you are prompted with a few questions.

   • **Type of CCTV Interface**
     Select American Dynamics.

   • **Description or name for the interface**
     Enter a description for this interface, such as `Main Building CCTV`.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each
                interface *must* be unique.

   • **COM port to which this interface is connected**
     Select the COM port.

9. Click **Install** to complete the installation.

10. Once the installation is complete, from the Control Panel, select **System**, **Hardware** tab, **Device Manager**, **Ports**. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller's setup.

11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.

12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application Group pane, Monitors & Controls group, select **Client Monitor**. You notice an entry for the CCTV you just installed.

13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. *See "Configuring alarms" on page 172* and *"Monitoring" on page 184*.

14. To start your CCTV interface, click **Launch Client** on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the American Dynamics system is a one-way communication. FCWnx only sends data to the American Dynamics switcher; it does not receive any messages from American Dynamics. If the American Dynamics switcher loses communications with the FCWnx system, there is not be a Loss of COMM alarm generated on the FCWnx system.

Only the loss of Client COMM alarm is installed in the American Dynamics interface. This alarm is generated from FCWnx when the FCWnx server is no longer able to communicate with the interface program.

Alarms from FCWnx

The FCWnx - American Dynamics interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the American Dynamics system. Before this can happen, FCWnx needs to be notified as to which

FCWnx alarms are to be the triggers and which messages need to be sent to the American Dynamics system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. *See "Adding, changing, or deleting CCTV alarms" on page 168*.

2. Map FCWnx alarms to CCTV alarms. See *"Mapping FCWnx alarms to CCTV alarms" on page 184*.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the American Dynamics interface. They control what sequence of monitors and cameras are switched on and off. The American Dynamics controller is preprogrammed to interpret these messages. (To program the American Dynamics controller, refer to the manual on the American Dynamics command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Add**.

3. In the Description field, enter the appropriate description for your system. Example: `American Dynamics CCTV Alarm`

4. In the CCTV Interface field, choose **American Dynamics**.

5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.

6. The Enable Message and Disable Message fields are automatically filled. Use these default settings.

7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: **when the alarm is cleared from the Alarm Monitor,** or **when the alarm Resets.**
   This means the Reset or the disable message can be sent out when the FCWnx alarm:

   • Is cleared from the Alarm Monitor
   • Resets

8. Click **Save**.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the CCTV alarm you want to change. The alarm information now displays.

4. Make the desired changes.

5. Click **Save**.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the CCTV alarm you want to delete.

4. Click **Delete**.

5. You are prompted to verify your decision to delete. Click **Yes** to delete or **No** to keep the record.

Burle Allegiant system

The FCWnx - Burle Allegiant interface supports the Burle Allegiant controllers TC8500 through TC8901.

A serial COM port is the only additional hardware requirement for FCWnx. It is used to communicate with the Burle Allegiant controller. A separate COM port can also be configured to report Video Loss detection, which is reported using the alarm monitor as a Video Loss alarm when one or more cameras lose its video signal. A separate video loss alarm is generated for each camera.

The FCWnx **-** Burle Allegiant interface provides the capability to automatically control Burle Allegiant CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or "mapped" to the appropriate CCTV cameras set up in Burle Allegiant. When FCWnx receives the mapped alarm, FCWnx sends a message to the Burle Allegiant system to turn on the linked CCTV cameras and monitors. The Burle Allegiant system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the FCWnx Alarm Monitor form, or when the FCWnx alarm resets, the Burle Allegiant system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration:

1. Set up the FCWnx system and the Burle Allegiant system or verify the setup if this is an existing system. *Figure 98* on the next page provides a basic example of the hardware setup. See *"Hardware requirements" on page 170* and *"Software requirements" on page 164* for more information.

2. Install the FCWnx - Burle Allegiant software on the FCWnx computer. *See "Installation: Burle Allegiant" on page 171*.

3. Add CCTV alarms and then link or "map" the FCWnx alarms to the appropriate CCTV cameras set up in Burle Allegiant. *See "Configuring alarms" on page 172* and *See "Monitoring" on page 184*.

4. Once the FCWnx and Burle Allegiant systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 98. Overview of the FCWnx and Burle Allegiant interface
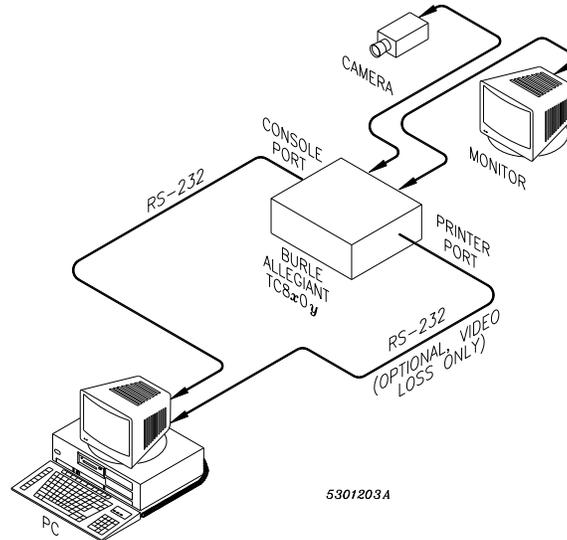
Hardware requirements

For the Burle Allegiant system

- Allegiant (Models TC8500 through TC8901) controller provided by Burle
- CCTV cameras and monitors

Note: Refer to your Allegiant manual for DIP switch settings. They should be set to the default value.

Refer to your Burle Allegiant documentation for setup specifics.

For the FCWnx system

- FCWnx computer (*See "Installation: Burle Allegiant" on page 171,* for installation instructions.)
- At least one serial port, or two if you plan on using the optional Video Loss monitoring. You may need to purchase and install a Digi board to provide additional COM ports to connect to the switchers.
- Cable to connect the FCWnx system to the Burle Allegiant switcher console port (See *Figure 99* and *Figure 100 on page 171*.)
- For the optional Video Loss monitoring, a second RS-232-C serial port

Figure 99. Cable pinouts: FCWnx system to switcher (DB25F to DB9M)
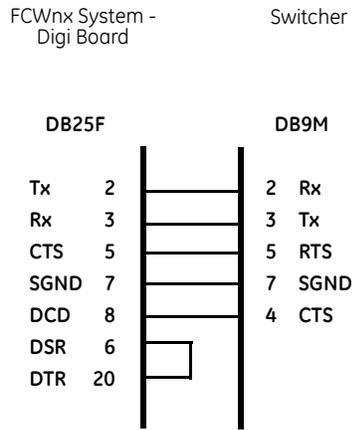
Figure 100.Cable pinouts: FCWnx system to switcher (DB9F to DB9M)
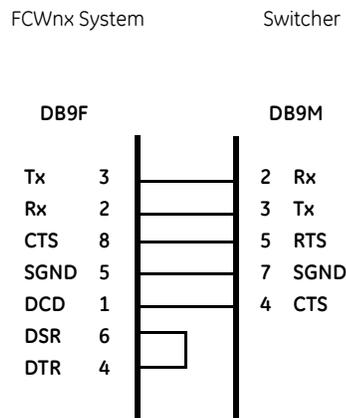
Installation: Burle Allegiant

This interface program has a separate install utility in the FCWnx directory of the client computer or in the client directory of the server computer.

The FCWnx - Burle Allegiant program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your Burle Allegiant manual for DIP switch settings. They should be set to the default settings.

To install FCWnx - Burle Allegiant:

1. You *must* be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.

   Note: The client on which you are installing FCWnx must be able to communicate on the network with the FCWnx server computer.

2. Click **Start**, then **Run**.

3. From the Run window, click **Browse**.

4. In the 'Look in' field, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory in which FCWnx is installed. The default is Program Files\GE\FCWnx.

5. Select the CCTVInstall.exe.

6. Click **Open**.

7. In the Run window, click **OK**.

8. Provide the appropriate answers to prompts and click **Next** to continue.

   During installation, you are prompted with a few questions.

   • **Type of CCTV Interface**
     Select Burle Allegiant.

   • **Description or name for the interface**
     Enter a description for this interface, such as **Main Building CCTV.**

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface *must* be unique.

   • **COM port to which this interface is connected**
     Select the COM port.

   • **COM port for video loss signal**
     OPTIONAL: Select a COM port to use as a second connection for the interface. Click **Next**.

9. Click **Install** to complete the installation. You need to stop and restart the FCWnx server for these changes to take effect.

10. Once the installation is complete, from the Control Panel, select **System, Hardware** tab, **Device Manager**, and then **Ports**. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller setup.

11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.

12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application Group pane, Monitors and Controls group, select **Client Monitor**. You notice an entry for the CCTV you just installed.

13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. *See "Configuring alarms" on page 172* and *"Monitoring" on page 184*.

14. To start your CCTV interface, click **Launch Client** on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Burle Allegiant system is bidirectional, meaning that alarms are sent from FCWnx to the Burle Allegiant system and alarms are also sent from the Burle Allegiant system to the FCWnx system.

Alarms from the Burle Allegiant system

There are two alarms that can be generated from the Burle Allegiant CCTV system.

Loss of COMM alarm

This alarm signifies that the interface program is no longer able to communicate with the Allegiant controller.

Video Loss alarm

This alarm is reported only if you selected the optional video loss port during the installation of the FCWnx - Burle Allegiant software. A separate alarm is generated for each camera that is configured on the Burle system.

The first alarm is set up for you. However, the Video Loss alarm requires that a special command be executed on the Burle Allegiant system to report this alarm. Refer to the Burle Allegiant documentation for more information.

Alarms from FCWnx

The FCWnx **-** Burle Allegiant interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Burle Allegiant system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Allegiant system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. *See "Adding, changing, or deleting CCTV alarms" on page 173*.

2. Map FCWnx alarms to CCTV alarms. See *"Mapping FCWnx alarms to CCTV alarms" on page 184*.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent to the Allegiant interface. They control the sequence of monitors and cameras are switched on and off. The Allegiant controller is preprogrammed to interpret these messages. (To program the Burle Allegiant controller, refer to the manual on the Burle Allegiant command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Add**.

3. In the Description field, enter the appropriate description for your system. Example: `Burle Allegiant CCTV Alarm`

4. In the CCTV Interface field, choose **Burle Allegiant**.

5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.

6. The **Enable Message** and **Disable Message** fields are automatically filled. Use these default settings.

7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: **When the alarm is cleared from the Alarm Monitor**, or **When the alarm Resets.**

This means the reset or the disable message can be sent when the FCWnx alarm:

- Is cleared from the Alarm Monitor
- Resets

8. Click **Save**.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate the CCTV alarm you want to change, then select it. The alarm information now displays.

4. Make the desired changes.

5. Click **Save**.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate the CCTV alarm you want to delete then select it.

4. Click **Delete**.

5. You are prompted to verify your decision to delete. Click **Yes** to delete or **No** to keep the record.

Kalatel system

The FCWnx - Kalatel interface supports the Kalatel controller KTD-348.

The FCWnx **-** Kalatel interface provides the capability to automatically control Kalatel CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or "mapped" to the appropriate CCTV cameras set up in Kalatel. When FCWnx receives the mapped alarm, FCWnx sends a message to the Kalatel system to turn on the linked CCTV cameras and monitors. The Kalatel system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the Alarm Monitor form, or when the FCWnx alarm resets, the Kalatel system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration, follow these steps:

1. Set up the FCWnx system and the Kalatel system or verify the setup if this is an existing system. *Figure 101* provides a basic example of the hardware setup. See *"Software requirements" on page 164* and *"Hardware requirements" on page 175* and for more information.

2. Install the FCWnx - Kalatel software on the desired FCWnx computer. *See "Installation: Kalatel" on page 177*.

3. Add CCTV alarms and then link or "map" the desired FCWnx alarms to the appropriate CCTV cameras set up in Kalatel. *See "Configuring alarms" on page 178* and *"Monitoring" on page 184*.

4. Once the FCWnx and Kalatel systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 101.Overview of the FCWnx and Kalatel interface
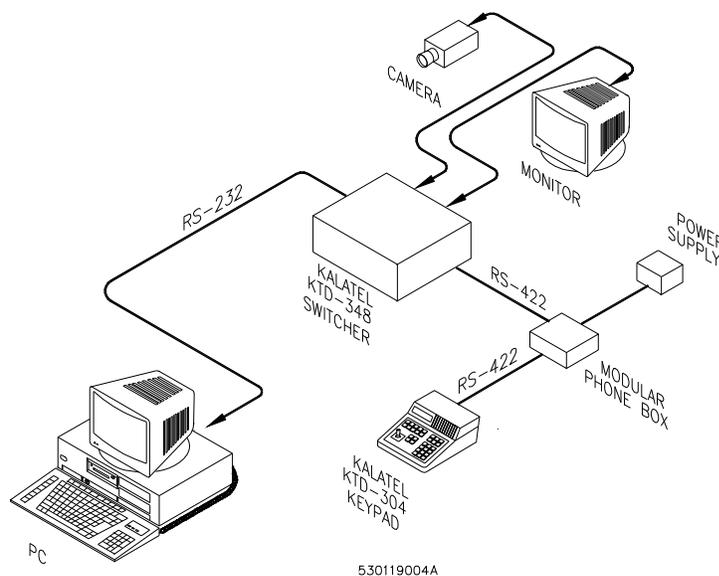
Hardware requirements

For the Kalatel system

- Cable to connect the KTD-304 keypad to the KTD-348 switcher. (Refer to *Figure 102 on page 176* for cable pinout information.)
- CCTV cameras and monitors
- KTD-348 controller provided by Kalatel
- KTD-304 keypad provided by Kalatel

Figure 102.Cable pinouts: KTD-304 to KTD-348For the FCWnx System


```
RS-422 CONTROL
  SIGNAL IN                B    ( G )         ( R )    SIGNAL (A)
 (From other
  keypads or                                                            DTMF
 alarm chassis.)           A    ( Y )         ( BL )   COMMON (B)       CALL
                                                                        SIGNAL

RS-422 CONTROL             B    ( BR )        ( O )    NO POLARITY
  SIGNAL OUT
 (To receivers
  and matrix               A    ( WH )        ( B )    NO POLARITY
  switchers.)
                                                           MODULAR
                                                           WALL JACK

            RS-422 IN  A  =  (Y)  YELLOW
            RS-422 IN  B  =  (G)  GREEN
            RS-422 OUT A  =  (WH) WHITE
            RS-422 OUT B  =  (BR) BROWN
            14VDC POWER   =  (O)  ORANGE
            14VDC POWER   =  (B)  BLUE
          DTMF SIGNAL (A) =  (R)  RED                    KTD-304
          DTMF COMMON (B) =  (BL) BLACK                  KEYPAD
```

14VDC WALL XFMR.

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- FCWnx computer

  Refer to *"Installation: Kalatel" on page 177*.

- Cable to connect the FCWnx system from Kalatel KTD-348.

Figure 103.Cable pinouts: FCWnx to Kalatel KTD-348


```
ALRT      RS-232      OUT       IN
          RX  TX     B   A     B   A
```

```
                          DB-9 PIN    SIGNAL    DB-25 PIN
                             2 ——————— RXD ——————> 3
                             3 <—————— TXD ——————  2
                             5 ——————— GND ———————  7
```

530119005A
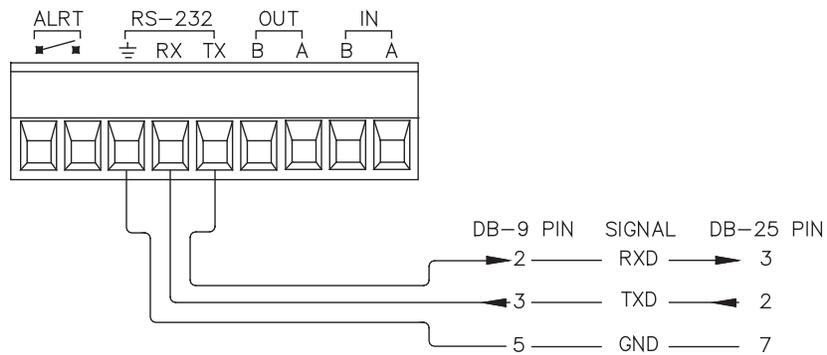
Installation: Kalatel

This interface program has a separate install utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - Kalatel program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your Kalatel manual for DIP switch settings. They should be set to the default settings.

To install FCWnx - Kalatel:

1. You *must* be logged in to the FCWnx computer with administrator privileges. If not, log out and log back in.

Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

2. Click **Start**, then **Run**.

3. From the **Run** window, click **Browse**.

4. In the 'Look in' field, select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory FCWnx is installed. The default is Program Files\GE\FCWnx.

5. Select the CCTVInstall.exe.

6. Click **Open**.

7. In the **Run** window, click **OK**.

8. Provide the appropriate answers to prompts and click **Next** to continue.

   During installation, you are prompted with a few questions.

   - **Type of CCTV Interface**
     Select Kalatel.
   - **Description or name for the interface**
     Enter a description for this interface, such as Main Building CCTV.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface *must* be unique.

   - **COM port to which this interface is connected**
     Select the COM port.

9. Click **Install** to complete the installation.

10. Once the installation is complete, from the Control Panel, select **System**, **Hardware** tab, **Device Manager**, **Ports**. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller's setup.

11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.

12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application Group pane, Monitors and Controls group, select **Client Monitor**. You notice an entry for the CCTV you just installed. (For FCWnx 2.1 and EE 1.1, from the Administration menu, select **Client Management**.)

13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. *See "Configuring alarms" on page 172* and *"Monitoring" on page 184*.

14. To start your CCTV interface, click **Launch Client** on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Kalatel system is a one-way communication. FCWnx only sends data to the Kalatel switcher; it does not receive any messages from Kalatel. If the Kalatel switcher loses communications with the FCWnx system, there is not be a Loss of COMM alarm generated on the FCWnx system.

Only the loss of Client COMM alarm is installed in the Kalatel interface. This alarm is generated from FCWnx when the FCWnx server is no longer able to communicate with the interface program.

Alarms from FCWnx

The FCWnx **-** Kalatel interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Kalatel system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Kalatel system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. *See "Adding, changing, or deleting CCTV alarms" on page 178*.

2. Map FCWnx alarms to CCTV alarms. See *"Mapping FCWnx alarms to CCTV alarms" on page 184*.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the Kalatel interface. They control what sequence of monitors and cameras are switched on and off. The Kalatel controller is preprogrammed to interpret these messages. (To program the Kalatel controller, refer to the manual on the Kalatel command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Add**.

3. In the Description field, enter the appropriate description for your system. Example: `Kalatel CCTV Alarm`

4. In the CCTV Interface field, choose **Kalatel**.

5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.

6. The Enable Message and Disable Message fields are automatically filled. Use these default settings.

7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: **when the alarm is cleared from the Alarm Monitor, or when the alarm Resets.**

This means the Reset or the disable message can be sent out when the FCWnx alarm:

- Is cleared from the Alarm Monitor
- Resets

8. Click **Save**.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the CCTV alarm you want to change. The alarm information now displays.

4. Make the required changes.

5. Click **Save**.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the CCTV alarm you want to delete.

4. Click **Delete**.

5. You are prompted to verify your decision to delete. Click **Yes** to delete or **No** to keep the record.

Pelco system

The FCWnx - Pelco interface supports the Pelco controller CM9760.

The FCWnx **-** Pelco interface provides the capability to automatically control Pelco CCTV cameras and to monitor remotely when FCWnx alarms change state. To be able to monitor the alarms, the desired FCWnx alarms must be linked or "mapped" to the appropriate CCTV cameras set up in Pelco. When FCWnx received the mapped alarm, FCWnx sends a message to the Pelco system to turn on the linked CCTV cameras and monitors. The Pelco system then controls the appropriate cameras and monitors. No operator intervention is required. As an alarm is cleared by the operator from the Alarm Monitor form, or when the FCWnx alarm resets, the Pelco system is informed that the alarm is now reset and responded to and the appropriate camera turns off.

Setup overview

To perform a successful configuration, follow these steps.

1. Set up the FCWnx system and the Pelco system or verify the setup if this is an existing system. *Figure 104* provides a basic example of the hardware setup. See *"Software requirements" on page 164* and *"Hardware requirements" on page 180* for more information.

2. Install the FCWnx - Pelco software on the desired FCWnx computer. *See "Installation: Pelco" on page 181*.

3. Add CCTV alarms and then link or "map" the desired FCWnx alarms to the appropriate CCTV cameras set up in Pelco. *See "Configuring alarms" on page 182* and *"Monitoring" on page 184*.

4. Once the FCWnx and Pelco systems are set up and configured, operation of the CCTV control feature is a hands-free procedure.

Figure 104.Overview of the FCWnx and Pelco interface

530109005A
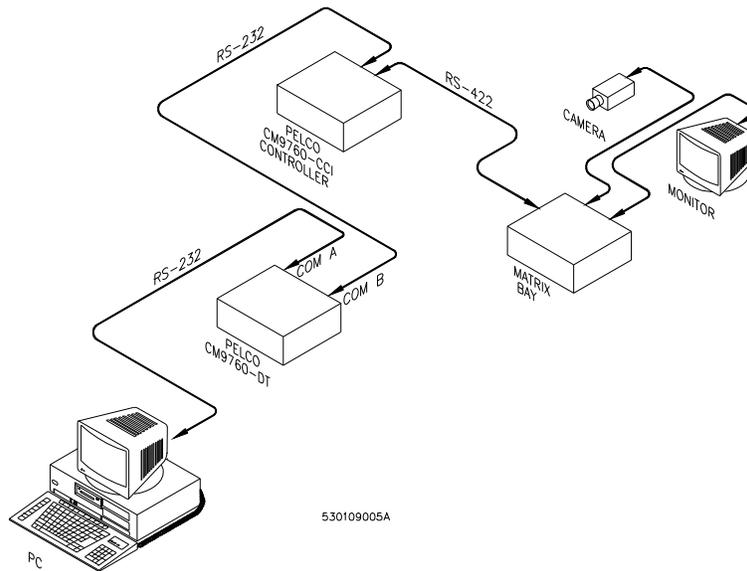
Hardware requirements

For the Pelco system

- Cable to connect the CM9760-DT box and the controller (Refer to *Figure 105* for cable pinout information.)
- CCTV cameras and monitors
- CM9760 controller provided by Pelco
- CM9760-DT box provided by Pelco
- Pelco CCTV equipment

Figure 105.Cable pinouts: CM9760-DT box to controller (DB9F to DB9F)

	Pelco CM9760-DT Box			Pelco CM9760 Controller	

	DB9F			DB9F	
Rx	2		3	Tx	
Tx	3		2	Rx	
GND	5		5	GND	
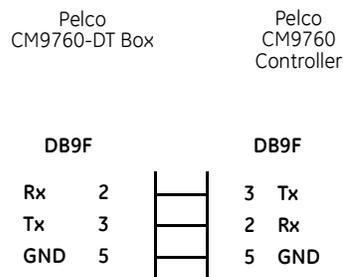
For the FCWnx system

- FCWnx computer
- Refer to *"Installation: Pelco" on page 181*.
- Cable to connect the FCWnx system and the Pelco CM9760-DT box.

Figure 106.Cable pinouts: FCWnx to Pelco CM9760-DT to DB9F

FCWnx System

Pelco
CM9760-DT
Box

DB9F   **DB9F**

Tx	3		2	Rx
Rx	2		3	Tx
GND	5		5	GND
DTR	4		4	DTR
DSR	6		6	DSR
RTS	7		7	RTS
CTS	8		8	CTS
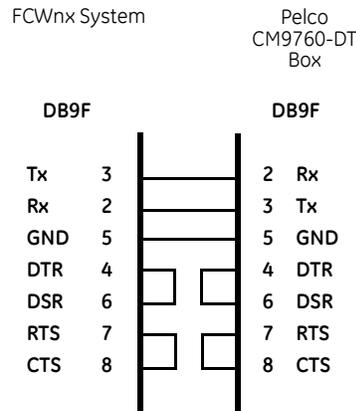
Figure 107.Cable pinouts: FCWnx system to Pelco CM9760-DT (DB25F to DB9F)

FCWnx System -
Digi Board

Pelco
CM9760-DT
Box

DB25F   **DB9F**

Tx	2		2	Rx
Rx	3		3	Tx
GND	7		5	GND
RTS	4		4	DTR
OTS	5		6	DSR
DSR	6		7	RTS
DCD	8		8	CTS
DTR	20			
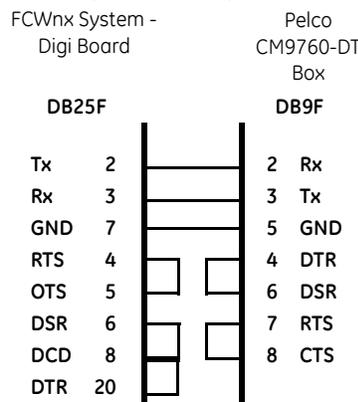
Installation: Pelco

This interface program has a separate install utility in the FCWnx directory of the client computer or in the Client directory of the server computer.

The FCWnx - Pelco program can be installed at the same time the FCWnx system is installed or any time thereafter.

Note: Refer to your Pelco manual for DIP switch settings. They should be set to the default settings.

To install FCWnx - Pelco:

1. You *must* be logged in to the FCWnx computer with administrator privileges. If not, log out and log on again.

   Note: The client on which you are installing FCWnx must be able to communicate on the network with the License Domain Controller.

2. Click **Start**, then **Run**.

3. From the Run window, click **Browse**.

4. In the 'Look in' field, either select the hard drive on which FCWnx is loaded, such as (C:). Then, navigate to the directory where FCWnx is installed. The default is Program Files\GE\FCWnx.

5. Select the CCTVInstall.exe.

6. Click **Open**.

7. In the Run window, click **OK**.

8. Provide the appropriate answers to prompts and click **Next** to continue.

   During installation, you are prompted with a few questions.

   • **Type of CCTV Interface**
     Select Pelco.
   • **Description or name for the interface**
     Enter a description for this interface, such as Main Building CCTV.

   Note: If multiple same-type CCTV interfaces are installed on a single FCWnx network, the description of each interface *must* be unique.

   • **COM port to which this interface is connected**
     Select the COM port.

9. Click **Install** to complete the installation.

10. Once the installation is complete, from the Control Panel, select **System**, **Hardware** tab, **Device Manager**, and **then Ports**. Select the COM port you previously selected in the installation and provide identical settings for baud rate, data bits, parity, stop bits, and flow control as your CCTV Controller's setup.

11. When you are ready to launch the CCTV program, you need to restart the FCWnx services on this client.

12. Once the system is running, log on to the computer as an FCWnx user and start the FCWnx application. Log on to FCWnx and from the Application Group pane, Monitors and Controls group, select **Client Monitor**. You notice an entry for the CCTV you just installed.

13. To start the CCTV application, you need to create CCTV alarms in the CCTV Alarm form first. Then you need to map the desired FCWnx alarm to CCTV on the Alarm form CCTV tab. *See "Configuring alarms" on page 172* and *"Monitoring" on page 184*.

14. To start your CCTV interface, click **Launch Client** on the toolbar while the CCTV interface is selected. This starts the program that communicates with your CCTV switcher.

Configuring alarms

The communication between the FCWnx system and the Pelco system is bidirectional, meaning that alarms are sent from FCWnx to the Pelco system and alarms are also sent from the Pelco system to the FCWnx system.

Alarms from the Pelco system

There is one alarm that can be generated from the Pelco CCTV system.

Loss of COMM alarm

This alarm signifies that the interface program is no longer able to communicate with the Pelco controller.

Alarms from FCWnx

The FCWnx **-** Pelco interface allows FCWnx alarms to trigger CCTV cameras/monitors to turn on or off on the Pelco system. Before this can happen, FCWnx needs to be notified as to which FCWnx alarms are to be the triggers and which messages need to be sent to the Pelco system to trigger cameras/monitors.

To configure correctly, follow the steps below. Each step is explained in more detail in the sections that follow.

1. Add, change, or delete the desired CCTV alarms. See "Adding, changing, or deleting CCTV alarms" on page .183..

2. Map FCWnx alarms to CCTV alarms. See *"Mapping FCWnx alarms to CCTV alarms" on page 184*.

Adding, changing, or deleting CCTV alarms

CCTV alarms are the actual messages that are sent out to the Pelco interface. They control what sequence of monitors and cameras are switched on and off. The Pelco controller is preprogrammed to interpret these messages. (To program the Pelco controller, refer to the manual on the Pelco command console language.)

To add CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Add**.

3. In the Description field, enter the appropriate description for your system. Example: `Pelco CCTV Alarm`

4. In the CCTV Interface field, choose **Pelco**.

5. In the CCTV Alarm field, choose the alarm number of the interface you are monitoring.

6. The **Enable Message** and **Disable Message** fields are automatically selected. Use these default settings.

7. In the Reset CCTV Alarm field, two reset choices for the alarm are provided: **when the alarm is cleared from the Alarm Monitor**, or **when the alarm Resets**.

   This means the Reset or the disable message can be sent out when the FCWnx alarm:

   • Is cleared from the Alarm Monitor, or
   • Resets.

8. Click **Save**.

To change CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate the CCTV alarm you want to change then select it. The alarm information now displays.

4. Make the desired changes.

5. Click **Save**.

To delete CCTV alarms within FCWnx:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the CCTV alarm you want to delete.

4. Click **Delete**.

5. You are prompted to verify your decision to delete. Click **Yes** to delete or **No** to keep the record.

Mapping FCWnx alarms to CCTV alarms

Before you begin, make sure that you have:

*   Added CCTV alarms (see previous section)
*   Configured the micros so that you have FCWnx alarms to map (refer to the Online help for assistance)

To map FCWnx alarms to CCTV alarms:

1. From the FCWnx Application Group pane, select **Gateways & Interfaces**, then **CCTV Interface**.

2. Click **Search**.

3. In the Search Result window, locate and then select the FCWnx alarm you want to map. The alarm information now displays.

4. Select the **CCTV** tab.

5. Click **Add/Remove**.

6. The CCTV alarms you added in the previous step display.

7. Select the desired CCTV alarm you would like to map to the FCWnx alarm.

8. Click to assign an alarm. If you would like to unassign one, select the desired CCTV alarm from the list on the right and click.

9. When you are done assigning alarms, click **OK**.

10. Click the **Alarm** tab. Verify that the **Monitor** field is enabled.

11. Click **Save**.

Monitoring

When you added CCTV alarms, the Reset CCTV Alarm field provided two reset choices for the alarm: **when the alarm is cleared from the Alarm Monitor**, or **when the alarm Resets**.

If you selected **when the alarm is cleared from the Alarm Monitor**, then you need to clear the FCWnx alarm from the Alarm Monitor before the RESET message is sent to the controller.

However, if you selected **when the alarm Resets**, you can observe the results on the Allegiant system as FCWnx alarms are SET and RESET (indicated by the red and green LED on the FCWnx Alarm Monitor).

All FCWnx alarms that trigger CCTV alarms must be monitored.

Diagnostics

A diagnostic object called CCTV reports all diagnostics for all CCTV interfaces on the client. For details of the diagnostic utility, refer to your FCWnx Online Help.

Removal of CCTV client interface

The FCWnx CCTV interface program is removed when you delete the client interface from any one of the FCWnx client computers.

To remove the CCTV client interface:

Note: You must first remove all CCTV alarm mapping before you can delete the CCTV interface.

1. From the Application Group pane, Administration group, select **Client** to open the Client form.
2. Click **Search** to display all records.
3. Select the CCTV client.
4. Click **Delete** on the FCWnx toolbar.