OPEN GRAPHIC NAVIGATOR

Open Graphic Navigator

Annunciation Monitoring & Control Software

Phase I
Administrator Guide

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1.0 Welcome

Open Graphic Navigator, hereafter referred to as OpenGN, is a fire alarm management and warning system designed to meet UL-864-R9 and ULC-S527-99 that lets you monitor remote sites located anywhere in the world.

This manual instructs you how to install and use the application, explains the responsibilities of the administrator and operator, and describes the building fire monitoring network system and configurable functions.

Note: Mircom Group of Companies (hereafter referred to as MGC) periodically updates panel firmware and software to add features and correct any minor inconsistencies. For information about the latest software visit the OpenGN website at www.mircom.com/OpenGN.

This chapter explains

- OpenGN Application
- Configurable Features
- Architecture
- Administrator Responsibilities
- Physical Architecture

1.1 Introducing OpenGN

The OpenGN software application provides building ready monitoring, control and software management solutions for the fire detection and asset protection market.

OpenGN addresses the need for an easy-to-use real-time fire monitoring system and provides the administrator with a visually pleasing fire detection configuration utility for use in industrial and residential establishments.

OpenGN consists of fire detection devices, fire monitoring panels or nodes, an Intranet/LAN connection, an XML Adapter and the OpenGN application.

Figure 1 illustrates a typical OpenGN application over a TCP/IP network. For additional examples of network topologies see the Appendix.

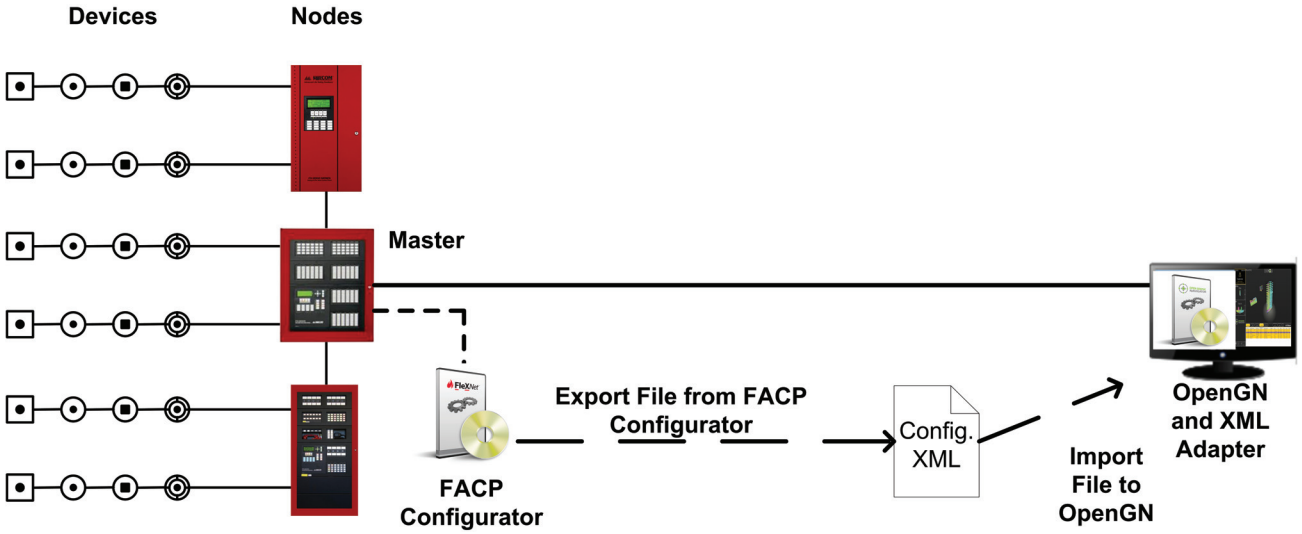


Figure 1 OpenGN TCP/IP Network Diagram

1.2 Configurable Features

OpenGN is an advanced fire detection system that lets you monitor information from panel controlled fire detection devices using a customized graphical display. OpenGN also stores all received events in a log file that can be viewed within the application.

Features of OpenGN product suite include:

- An aesthetically pleasing high quality customizable graphical interface between administrators and monitored buildings.
- Building ready monitoring control system with full software management in a user friendly graphical enabled interface.
- Easy configuration and customization of alarm devices.
- Remote desktop programming from any location.
- Upload/download configuration files without taking the whole system off-line.
- Records an unlimited amount of event logs.

- Each alarm or supervisory event displays the alarm location on the floor plan with specific information. User actions and events are logged and recorded for creation of customized reports.
- Each of the remote nodes are identifiable by their unique IP address. Additional identifying information such as the panel Globally Unique Identifier (GUID) and Job version authenticates the data source as well its sent data.
- OpenGN evaluates the state of the remote monitoring system. Any system failure can be established at the monitoring station and presented to management.

1.3 Components

The OpenGN fire monitoring system consists of the following components:

Table 1 OpenGN Components

Component	Description
Devices	A device is a physical module that can be addressable and configured to function on the basis of priority; alarm, supervisory, trouble, monitor or no priority. An example of a device that is not configurable nor addressable is a telephone.
Nodes	A node is a building fire monitoring panel such as the FX-2000N. Each node has several central processing units responsible for different functions. Everything at and beyond this level is addressable.
Master Fire Panel	A master fire panel is a node or panel that connects to the network and forwards events and status information from any of the secondary panel devices.
XML Adapter	Runs on the same PC as OpenGN or on a separate PC within the same network. The adapter connects to the master panel's IP address and port and relays device information to OpenGN.
Fire Alarm Control Panel (FACP) Configurator	Runs on a separate PC or on the same PC as OpenGN. The XML Configurator produces the system configuration XML file for use by OpenGN.
OpenGN	OpenGN is where the user monitors the entire campus in 2D or 3D by building or by floor. A list of all active events from any device connected to the panel is displayed here.

1.3.1 Devices

Devices are physical addressable fire detection modules that connect to the panel using circuits (loops) and are defined by their state and configuration.

Secondary panels connect to the master panel and have their own IPs and ports, but network communications is handled through the master panel's IP and port.

Loops

Each CPU has several circuits where physical devices are placed.

State

All devices can have any of the following states:

- Active
- Bypassed
- Troubled
- Normal

State Devices

The following network devices are capable of indicating a state:

- ION Input
- Conv Phone
- Laser Input
- Relay
- Input Module
- Remote Switch
- Photo Input
- Voice Line
- Conventional Input
- Conventional Relay
- Acclimate Input
- Addressable Relay
- Heat Input
- Amplifier
- Fire Phone

Function

Input Devices can be configured for the following functions:

- Alarm
- Trouble
- Supervisory
- Monitor

Configurable Devices

The following network input devices are configurable:

- ION Input
- Input Module
- Conventional Input
- Photo Input
- Acclimate Input
- Heat Input
- Laser Input

Non-Configurable Devices

The following network devices are not configurable.

- Relay
- Conventional Relay
- Conv Phone
- Voice Line
- Amplifier
- Remote Switch
- Addressable Relay
- Fire Phone

1.3.2 XML Adapter

The XML Adapter is a software application that receives events from the FACP and relays it to OpenGN.

Events from the fire panel are sent as an ASCII text stream to the XML Adapter, converted into an XML message and relayed to OpenGN for processing. The XML message contains information about the type of event and the device that triggered it.

1.3.3 FACP Configurator

The FACP Configurator is a software application that configures the Fire Protection system. To successfully integrate the system with OpenGN, an .xml file containing panel and device information must be exported from the FACP Configurator and subsequently imported into OpenGN.

Note: Always verify with MGC that the configurator version being used is compatible with OpenGN.

To ensure that all devices are identified correctly the FACP Configurator needs access to the same resource the panel is using.

1.3.4 OpenGN

OpenGN receives event information from the XML Adapter application through a TCP/IP port. The events represent state changes from the FACP.

OpenGN uses Microsoft SQL Express 2005 / 2008 as its database server to track and store device information, device locations, device icons, events, building maps, floor maps and user settings.

1.3.5 Licenses

Licenses are made secure by utilizing CodeMeter USB sticks. If the USB stick is not connected to the PC, and the Demo configuration file was imported into OpenGN, then OpenGN will run in Demo mode. The types of licenses available are as follows:

Table 2 Licenses Types and Supported Features

License Type (Order #)	Number of Jobs	Number of Networks / Adaptor Connections	Number of Devices / Points
Mini (OPENGN-MINI)	1	1	2000

Table 2 Licenses Types and Supported Features

License Type (Order #)	Number of Jobs	Number of Networks / Adaptor Connections	Number of Devices / Points
Control (OPENGN-CTRL)	1	1	10000
Enterprise (OPENGN-ENT)	1	1	10000
Demo (OPENGN-DEMO)	1	0	n/a

1.3.6 Operator's Responsibilities

Operators are responsible for the following tasks with additional responsibilities assigned by the administrator:

- Monitoring status and alarm information.
- Responding to alarms.
- Viewing alarms and responding to messages.
- Viewing and recording log information.

1.3.7 Administrator's Responsibilities

The administrator is responsible for the installation and configuration of OpenGN. When logged in as an administrator, all of the operator functions are available as well as the following administrator functions:

- Port and channel configuration.
- Map configuration (adding, modifying, deleting).
- Device configuration (adding, modifying, deleting).
- Alarm notification and display (adding, modifying, deleting).
- Monitoring alarm conditions.
- System configuration.
- Monitoring the operational health of the system.
- Application settings.

The administrator accesses OpenGN administrator mode from the PC. Additional responsibilities may be provided by the building manager.

The administrator performs many of the administrative tasks required for installing and managing OpenGN, including assigning permission to the roles and assigning permission for each OpenGN user. The administrator has full rights to every function within OpenGN and can assign roles to users and restrict access to specific areas.

1.4 Contact Us

For General Inquiries, Customer Service and Technical Support you can contact us Monday to Friday 8:00 A.M. to 5:00 P.M. E.S.T.

1.4.1 General Inquiries

Toll Free	1-888-660-4655 (North America Only)
Local	905-660-4655
Email	mail@mircom.com

1.4.2 Customer Service

Toll Free	1-888-MIRCOM5 (North America Only)
Local	905-695-3535
Toll Free Fax	1-888-660-4113 (North America Only)
Local Fax	905-660-4113
Email	salessupport@mircom.com

1.4.3 Technical Support

Toll Free	1-888-MIRCOM5 (North America Only)
	888-647-2665
International	905-647-2665
Email	techsupport@mircom.com

1.4.4 Website

www.mircom.com/OpenGN

2.0 Installation

This chapter provides information about the installation of OpenGN, the XML Adapter and XML Configurator.

This chapter explains

- Installation Prerequisites
- OpenGN Installation
- XML Adapter Installation
- Uninstalling OpenGN

2.1 Installation Prerequisites

OpenGN requires the following to properly interface with and monitor an Addressable Fire Alarm System.

- OpenGN installed on the monitoring PC that is running Windows XP or a later version with TCP/IP network access.
- XML Adapter connected to the FACP. The XML Adapter can be installed on the same or separate PC as OpenGN.
- A .xml configuration file of the Addressable Fire Alarm System imported into OpenGN.

Attention: Verify that the FACP configurator version is compatible with OpenGN.

2.1.1 Hardware Prerequisites

The suggested minimum capacity is:

- Intel® Core™ 2 Duo Processor @ 2.80GHz
- 2GB RAM DDR3
- 256MB Dedicated Graphics Memory (NVIDIA/ATI recommended)
- 10/100/1000 Ethernet Port
- Windows XP Professional SP3

The recommended capacity is:

- Intel® Core™ i5-650 Processor
- 8GB RAM DDR3
- 1GB Dedicated Graphics Memory (NVIDIA/ATI recommended)
- 10/100/1000 Ethernet Port
- Windows 7 or Windows 8

If the XML Adapter is installed on a separate PC the minimum requirements are as follows:

- Intel® Core™ 2 Duo Processor @ 2.80GHz
- 2GB RAM DDR3
- 256MB Dedicated Graphics Memory (NVIDIA/ATI recommended)
- 10/100/1000 Ethernet Port
- Windows XP Professional SP3

2.1.2 Connection Methods

There are three connection methods from OpenGN to the FACP via the XML Adapter that may be employed.

- TCP/IP (Local Area Network).
- Web Service across the Network.

- Web Service across the Internet.

2.1.3 Additional Software Prerequisites

OpenGN has a one click installer that searches for and if needed, will install the following applications.

Table 3 Additional Software Prerequisites

Component	Description
.NET 3.5 SP1	.NET 3.5 SP1 comes with any Windows 7, it needs to be installed on Windows XP and must be enabled on Windows 8.
Microsoft SQL Express 2005 / 2008	Microsoft SQL Express 2005 / 2008 creates the database server instance that the application communicates with. Microsoft SQL Express 2005 is used in Windows XP and Microsoft SQL Express 2008 is used in Windows 7 and Windows 8.
Windows Installer 3.1 / 4.5	Windows Installer 3.1 is included in Windows XP SP3, if you are using an earlier SP then you will have to install Windows Installer 3.1 from the install disk. Windows Installer 4.5 is included in Windows 7. Windows 8 users will need to install Windows Installer 4.5 from the install disk.
Codemeter Runtime Kit (x86, x64)	Developed by WIBU-SYSTEMS AG and is required to use CmStick (USB Security Sticks).
Crystal Reports Runtime 10.5	Developed by SAP and is required to use the Event Log Report feature.

2.1.4 Configuring OpenGN systems with Remote (Secondary) Instances

Configuring OpenGN with multiple instances successfully requires the following steps.

To Configure systems with multiple instances of OpenGN

1. Gather the IP address of all the workstations that will be running OpenGN.
2. Install the Main instance of OpenGN. For configuration instructions see Chapter 2.2 OpenGN Installation.
3. Ensure that Microsoft SQL Express 2005 / 2008 is configured correctly. For configuration instructions see Chapter 2.2.1 Configuring Microsoft SQL Express 2005 / 2008.
4. Retrieve the Main Instance port information and configure the Connection Settings of OpenGN. For configuration instructions see Chapter 2.2.2 Configuring Secondary Instances of OpenGN.
5. If the workstations are using firewalls, add exceptions. For instructions on how to do so with Windows Firewall see Chapter 2.2.3 Adding exceptions to Windows Firewall.

2.2 OpenGN Installation

The OpenGN installation process is a fully automated process that is launched from the OpenGN USB key, CD, or downloaded file.

OpenGN automatically detects and installs any missing prerequisite components. An Internet connection may be required to download installation files in some versions of Windows. The customer has the option of installing the prerequisites separately and then manually running the OpenGN installer afterwards.

Attention: The user installing OpenGN must have Administrator rights.

Windows 7 & Windows 8 Users

During the installation and configuration process always run applications as an Administrator.

If you receive a pop up window with a “Program Compatibility Issue” error then click on the “**Run Program**” button.

Attention: An internet connection is required for Windows 8 Users

During the install process a dialogue box will prompt you to Download and install .NET 3.5 SP1 or Skip. Please select the Download and Install option as the component is required for the operation of OpenGN. An active internet connection will be required for the downloading.

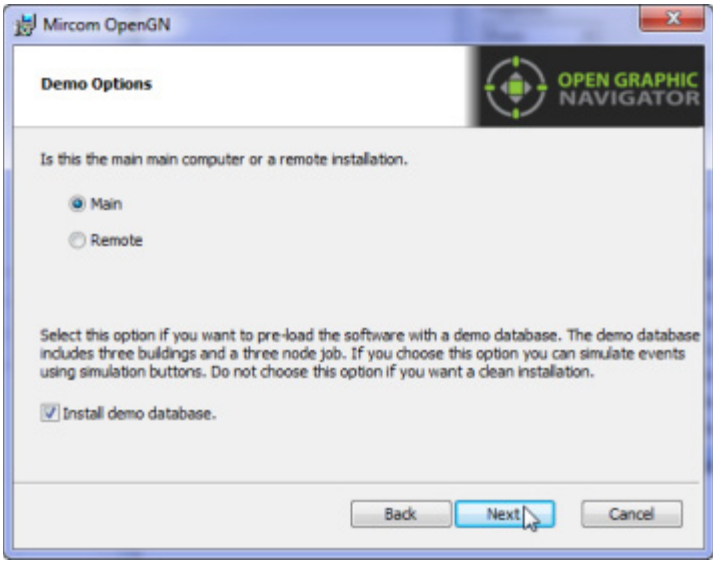
To install OpenGN

- If you have the USB key or CD, insert it into the computer.
- If you downloaded OpenGN from the Internet, double-click the **Setup** icon.

1. If prompted to install any of the applications listed in Table 3, always accept the EULA and **Install** the application.
2. After installing the additional required applications, the OpenGN setup screen will appear. Click **Next** to proceed to the EULA screen.

3. Click the **checkbox** to accept the EULA and click **Next** to proceed.

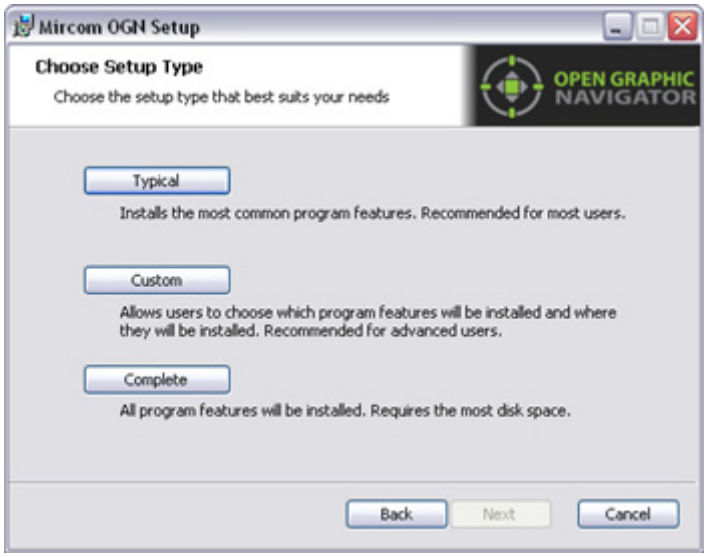
4. Select whether this installation is to be the Main or Remote instance of OpenGN and install a demo database.



Main The main or only instance of the OpenGN application. If you do not wish to install the demo database remove the appropriate check mark. To meet agency requirements OpenGN must be installed in the same room and networked via ethernet within 18m to a Mircom FleX-Net™ FACP.

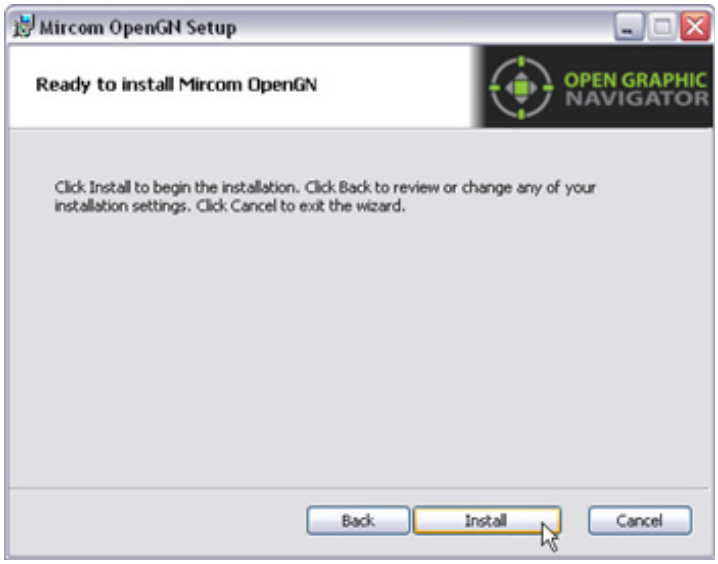
Remote Remote client that connects to the main instance of OpenGN. Configuration and control features are not available.

5. From the Choose Setup screen select the desired installation, **Typical**, **Custom** or **Complete**.

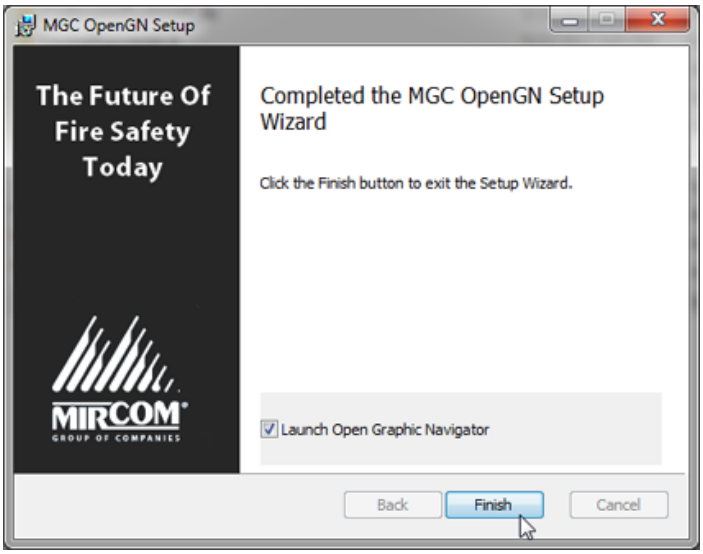


Typical	A typical installation. Does not install the XML Adapter.
Custom	Allows the user to choose what applications to install.
Complete	Installs all components, including the XML Adapter.

6. The application is ready to install. Click Install.



7. Once the installation process has completed you can launch OpenGN by selecting the Launch Open Graphic Navigator checkbox and clicking **Finish**.



2.2.1 Configuring Microsoft SQL Express 2005 / 2008

Microsoft SQL Express 2005 / 2008 stores and manages the OpenGN database and must be configured to accept connections to the database.

To configure Microsoft SQL Express 2005 / 2008

Attention: If you are running Windows 7 or Windows 8 you must run Microsoft SQL Express 2005 / 2008 as an Administrator. If, after opening the application you receive a compatibility issue warning, click **Run Program**.

1. To open the application, from the desktop click **Start > All Programs > Microsoft SQL Server 2005 or Microsoft SQL Server 2008> Configuration Tools > SQL Server Surface Area Configuration**.
2. Click **Surface Area Configuration for Services and Connections**.
3. From the Component Tree select the SQLEXPRESS entry and click **Remote Connections**.
4. Select the **Local and remote connections > Using both TCP/IP and named pipes**.
5. Click **Apply**. A Connections Settings Change Alert window may appear. If it does click **OK**. If there is a subsequent error message, disregard it, click **OK** and continue to the following step.
6. To restart the service, from the Component Tree select **Service**.
7. Click **Stop** and wait for the service to be stopped.
8. Click **Start** and the service will restart.

9. Click **OK** to exit the configuration section and close Microsoft SQL Express 2005 / 2008.

Attention: If you are installing a system with Remote Instances of OpenGN continue on to 2.1.4 Configuring OpenGN systems with Remote (Secondary) Instances.

If you are running a single instance of OpenGN continue on to 2.3 Connecting OpenGN to a Mircom FleX-Net™ FACP or 2.4 Connecting OpenGN to a Mircom FX-2000 FACP as required.

2.2.2 Configuring Secondary Instances of OpenGN

When using Remote Nodes, in order to ensure a successful system configuration the Secondary Instances of OpenGN must be identified in the Main Instance.

To add a Secondary Instance

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Connection Settings**. The Connection Settings window appears.
3. In the Secondary Instance field click **New** and the Connection Properties window appears.
4. To create the Secondary Instance provide the following:

Instance Name	Name of the Secondary Instance.
Connection Type	Select TCP/IP or Web Service.
IP Address	If TCP/IP selected enter the IP address of the workstation where the secondary instance will be installed.
Web Service URL	If TCP/IP selected enter the Web Service URL of the workstation where the secondary instance will be installed.

5. Click **OK** and exit OpenGN.

2.2.3 Adding exceptions to Windows Firewall

On the Main Instance of OpenGN both the Program and the Port must be allowed through the firewall.

Notes: For configuring exceptions on the Main Instance of OpenGN ensure that you have the port information from the DB Connections Field of the Connection Settings of OpenGN.

For remote instances of OpenGN port information is not required.

To add exceptions to Windows 7 Firewall

1. On the Main Instance of OpenGN open Windows Firewall with Advanced Security.
2. Select **Inbound Rules**.
3. Click **New Rule**.
4. Select **Program** and click **Next**.
5. Browse to the location of OpenGN, click **Open** and click **Next**.
6. Select **Allow the Connection** and click **Next**.
7. Ensure that **Domain**, **Private** and **Public** are checked and click **Next**.
8. Enter a Name and click **Finish**.
9. Select **Inbound Rules**.
10. Click **New Rule**.
11. Select **Port** and click **Next**.
12. Select **TCP** and **Specific local ports.** Enter the number of the port that was listed in the DB Connections Field in OpenGN and click **Next**. For instructions on finding the DB Connections field see Chapter 2.2.2 Configuring Secondary Instances of OpenGN.
13. Select **Allow the Connection** and click **Next**.
14. Ensure that **Domain**, **Private** and **Public** are checked and click **Next**.
15. Enter a Name and click **Finish**.
16. Select **Outbound Rules**.
17. Click **New Rule**.
18. Select **Program** and click **Next**.
19. Browse to the location of OpenGN and click **Next**.
20. Select **Allow the Connection** and click **Next**.
21. Ensure that **Domain**, **Private** and **Public** are checked and click **Next**.
22. Enter a Name and click **Finish**.
23. Select **Outbound Rules**.
24. Click **New Rule**.
25. Select **Port** and click **Next**.
26. Select **TCP** and **Specific local ports.** Enter the number of the port that was listed in the DB Connections Field in OpenGN and click **Next**.

27. Select **Allow the Connection** and click **Next**.
28. Ensure that **Domain**, **Private** and **Public** are checked and click **Next**.
29. Enter a Name and click **Finish**.

To add exceptions to Windows XP Firewall

1. On the Main Instance of OpenGN open Windows Firewall.
2. Select the **Exception** tab.
3. Click **Add Program**.
4. Browse to the location of OpenGN.
5. Enter the number of the port that was listed in the DB Connections Field in OpenGN and click **OK**.

Note: It is recommended that you connect to the FACP with the XML Adapter before Launching OpenGN.

2.2.4 Exporting the config.xml File

The Addressable Fire Alarm Control Panel (FACP) configuration application produces the config.xml file that allows the XML Adapter to send panel and device information to the OpenGN application.

The export procedure is typically a one time operation, unless the Job becomes modified in which case the Job must be exported again.

This file contains the following Job based device information:

- Object types
- Object classes
- Object hierarchy

To export the XML file From a Mircom FACP

1. Open the FACP Configuration Application. The Main Display window appears.
2. Select **Job > Export Job**. The Export Current Job window appears.

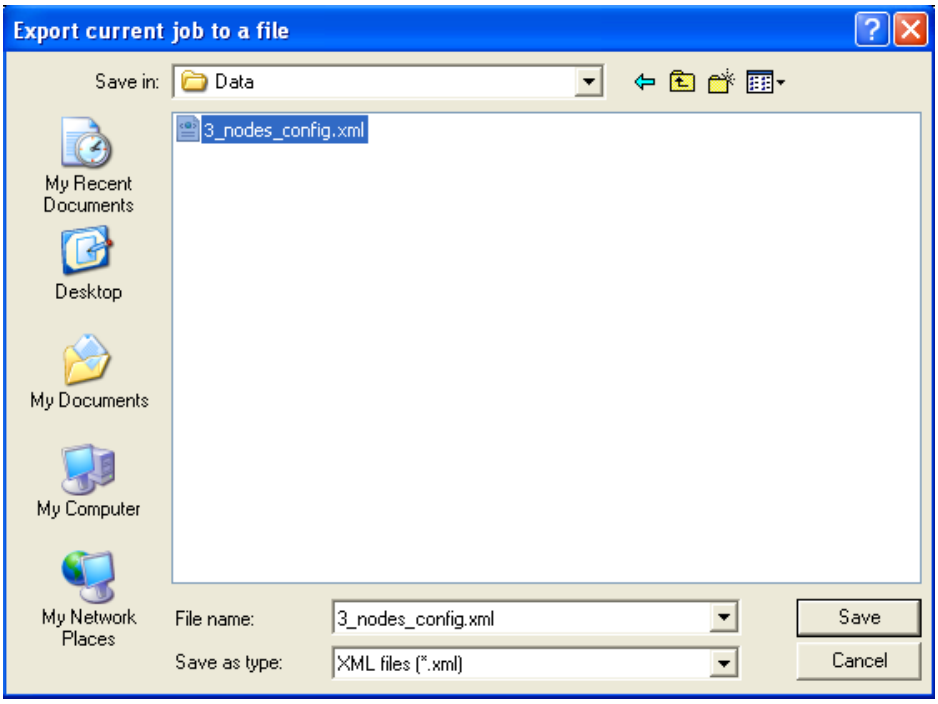


Figure 2 Export Current Job

3. Select the file type as XML and save the file to a specified location.
4. Close the application and proceed with the rest of the configuration.

To export the XML file From a Secutron FACP

1. Open the Modul-R Human Interface Application (MHI). The Main Display window appears.
2. Click on System > Export.

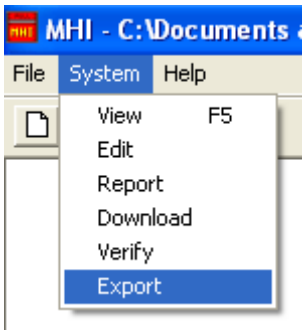


Figure 3 MHI Application -- Export Function

3. 3.The Export System dialog opens. Choose Open GN format and click Export.

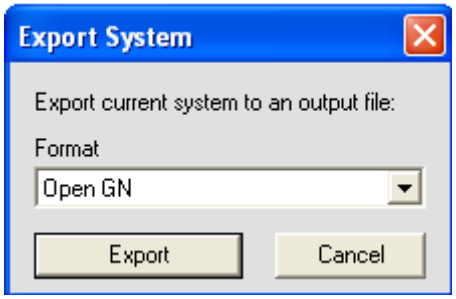


Figure 4 MHI application -- the OpenGN file type option

4. A confirmation dialog is created. Click Yes. This step creates a text file with a .txt extension which contains the configuration information of the FACP.

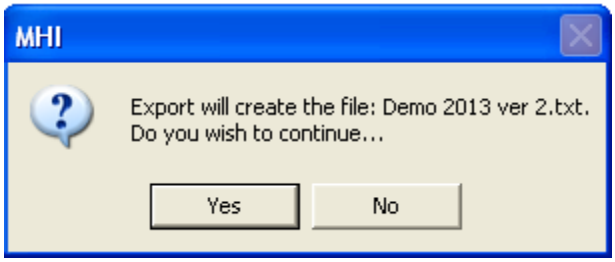


Figure 5 MHI application -- Export file confirmation dialog

5. Open the Secutron_ConfigXML and complete the required fields, use the “Chose File” button to select the file you created in step 4.

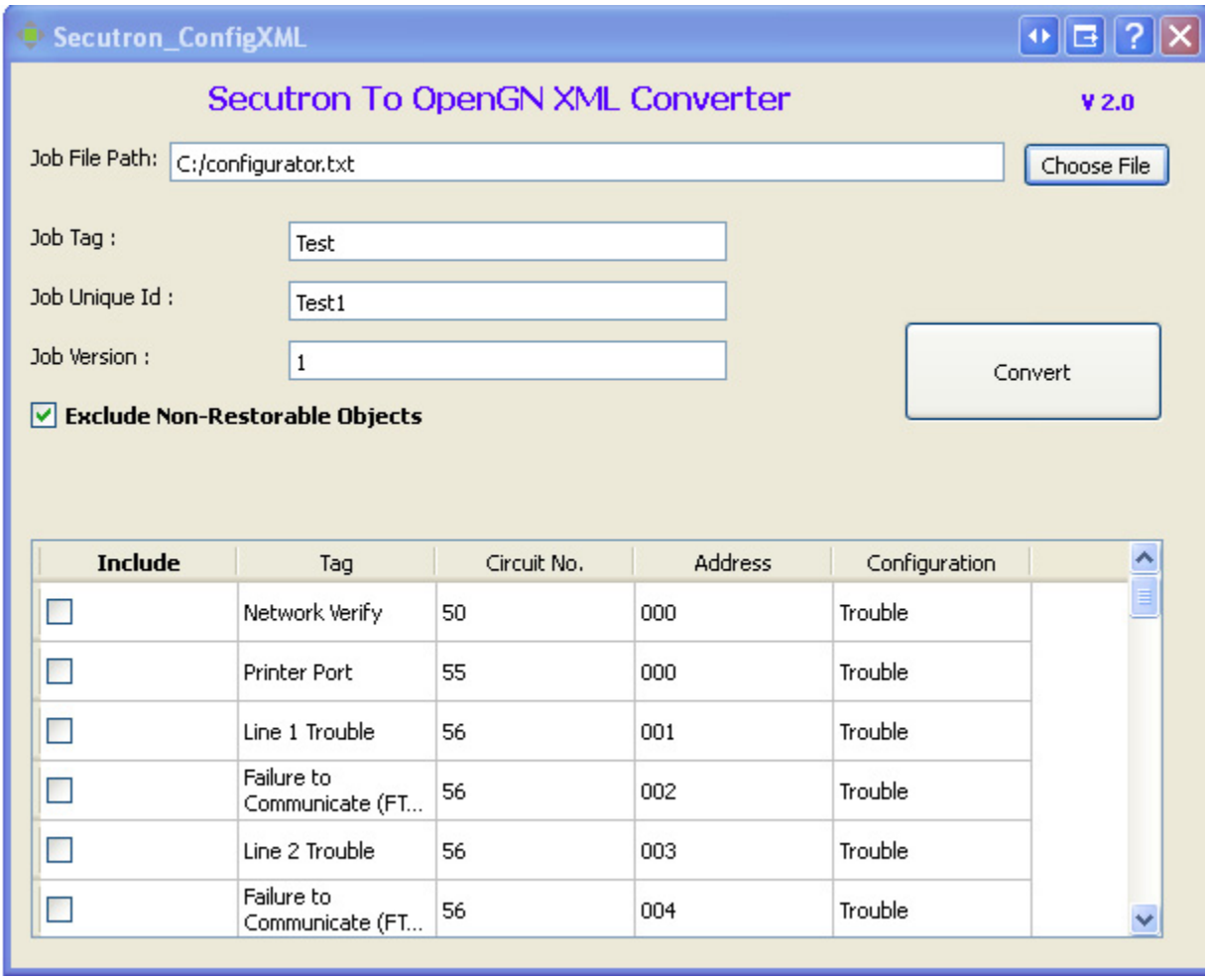


Figure 6 The Secutron_ConfigXML application

Job File Path - browse for the .txt file created above

Job Tag - define the configurator tag in order to identify this file in OpenGN.

Job Unique Id, Job version - define the id and version of the configurator. The id and version information is used by OpenGN and Adapter applications.

Select the Exclude Non-Restorable Object checkbox in order to ignore events from system status devices that are non-restorable. These devices are listed in the table. Restorable system status devices can also be excluded or included individually by using the checkbox of the Include field.

6. Click the Convert button. Save the .xml file by providing it a name and location.

2.2.5 Importing the .xml configurator to OpenGN

To import the .xml configurator to OpenGN the following steps are needed:

1. Insert a license key in the computer with OpenGN installed
2. Open the OpenGN application and login
3. Select the Config. button to navigate to the Configuration screen
4. Select the Settings button to open the Main Program Settings
5. Select the Panel Settings tab
6. In the Panel Configuration area browse for the .xml file and click the Import XML button. A license key needs to be inserted in the OpenGN workstation. The configurator file is given a type depending on the license - mini, control, enterprise.

2.3 Connecting OpenGN to a Mircom FleX-Net™ FACP

It is recommended that you connect to the FACP before Launching OpenGN.

Attention: For specifications of operating OpenGN in an Agency listed environment see Appendix F - Agency Listed Specifications.

There are three methods of connecting OpenGN and the FACP with the XML Adapter.

- OpenGN and the XML Adapter installed on the same PC.
- OpenGN and the XML Adapter installed on different PCs.
- WebServices with OpenGN and the XML Adapter over the Internet.

2.3.1 Physical Connection to a Mircom FleX-Net™ FACP

Physical connections to a Mircom FleX-Net™ FACP is done via ethernet.

To connect to a Mircom FleX-Net™ FACP via ethernet port

1. Open the FACP enclosure.
2. Open the FACP chassis to access the FleX-Net™ main board.
3. Connect network ethernet cable to the ethernet port (P7) on the main board.

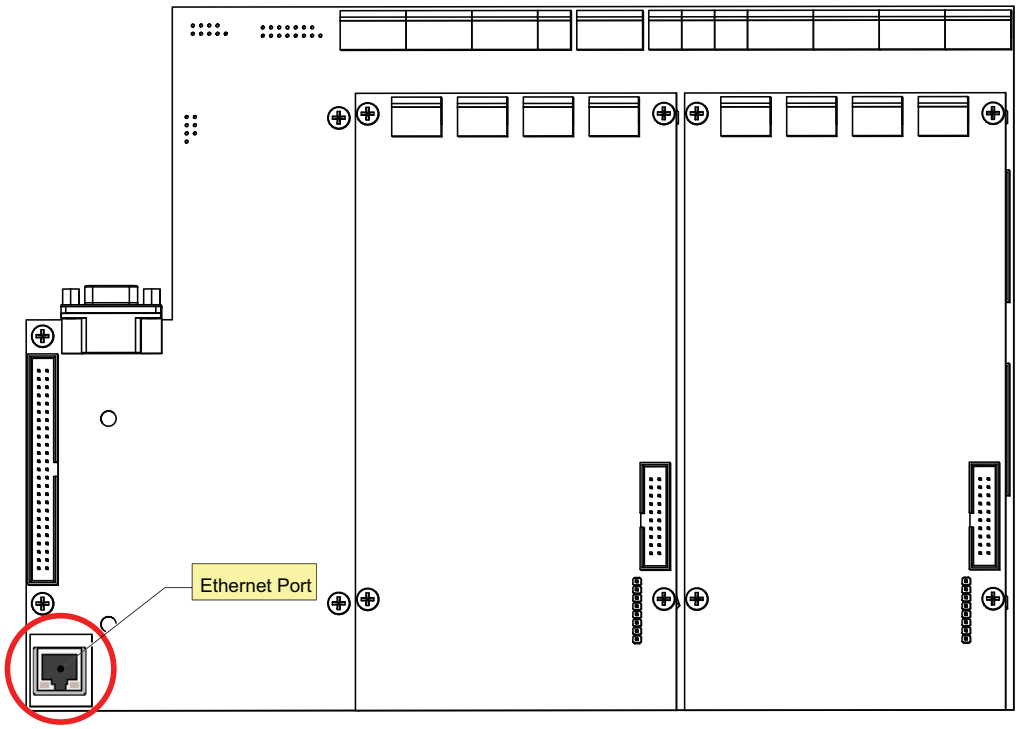


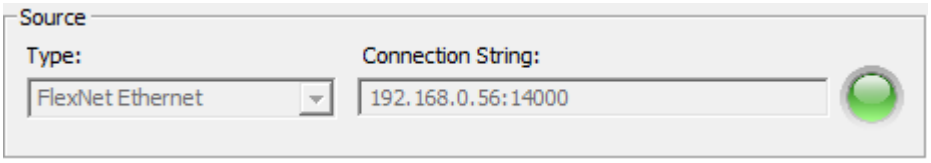
Figure 7 FleX-Net™ Main Board Ethernet Port (P7) Location

To connect via TCP/IP with OpenGN and the XML Adapter installed on the same PC

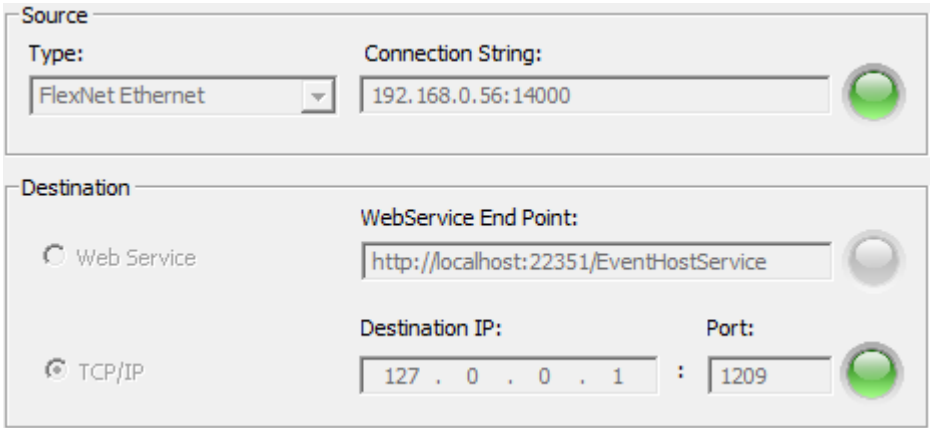
1. Connect the Ethernet cable extending from the master FleX-Net™ to a network to which your computer is connected. This is usually done by attaching the cable to a router that communicates between both the panel and the computer hosting the application.
2. Start the XML Adapter.
3. Define the following parameters:

Type	Select the physical port that you are connecting to the FACP.
Connection String	The IP and port of the FACP.
TCP/IP	Select this radio button.
Destination IP	127.0.0.1
Port	1209
Incoming Command IP	The IP address of the PC with the XML Adapter installed.
Port	1309. This must be a different port than what is listed above.

4. Click **Start** to initiate the connection process. Once connected to the panel the Source light will turn from red to green.



5. Start OpenGN. Once connected to OpenGN the Destination light will turn from red to green.



Note: If you would like to connect via WebService select the radio button and enter the address **http://localhost:22351/Event*HostService***.

2.4 Connecting OpenGN to a Mircom FX-2000 FACP

It is recommended that you connect to the FACP before Launching OpenGN.

There are three methods of connecting OpenGN and the FACP with the XML Adapter.

- OpenGN and the XML Adapter installed on the same PC.
- OpenGN and the XML Adapter installed on different PCs.
- WebServices with OpenGN and the XML Adapter over the Internet.

2.4.1 Physical Connection to a Mircom FX-2000 FACP

Physical connection to a Mircom FX-2000 FACP is done via RS-232 serial cable.

To connect to a Mircom FX-2000 FACP via serial port

1. Open the FACP enclosure.
2. Open the FACP chassis to access the FX-2000 main board.
3. Connect network serial cable to the RS-232 serial port (P9) on the main board.

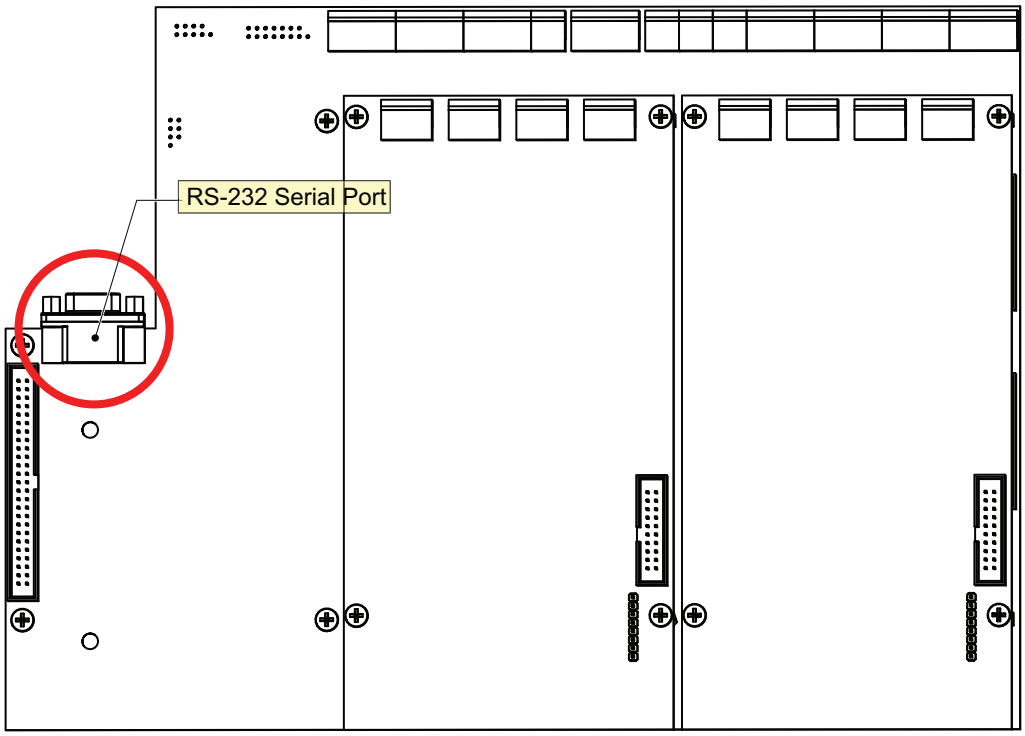


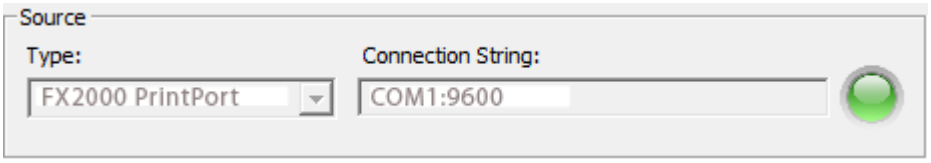
Figure 8 FX-2000 Main Board Serial Port (P9) Location

To connect via TCP/IP with OpenGN and the XML Adapter installed on the same PC

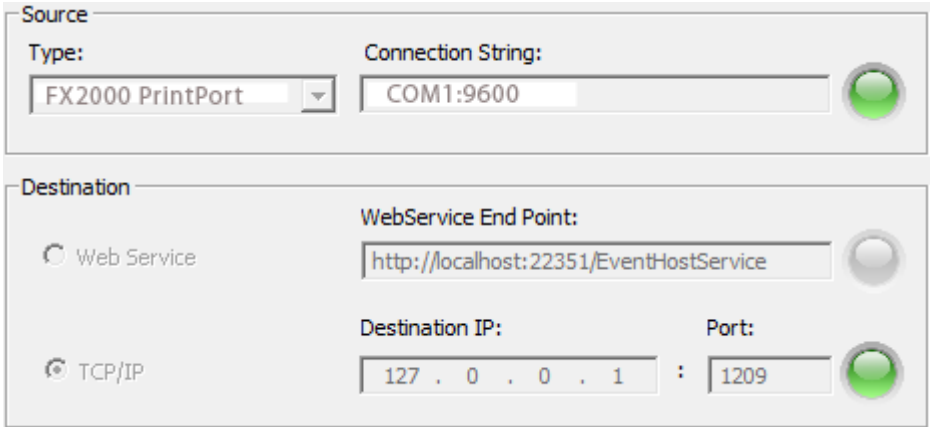
1. Connect the RS-232 cable extending from the master FX-2000 or RAX-LCD annunciator to the Main workstation. The workstation must be no more than 50 feet from the panel or annunciator.
2. Start the XML Adapter.
3. Define the following parameters:

Type	Select **FX2000 PrintPort**.
Connection String	The port and baud rate of the FACP. Usually this is **COM1:9600**.
TCP/IP	Select this radio button.

4. Click **Start** to initiate the connection process. Once connected to the panel the Source light will turn from red to green.



5. Start OpenGN. Once connected to OpenGN the Destination light will turn from red to green.



2.4.2 To connect via WebServices over the Internet

1. Ask your network administrator to expose the web service end point of the computer hosting the application on the Internet. The address could be identified by the following methods:

Based on the IP address of the computer

http://xxx.xxx.xxx.xxx:22351/EventHostService

Based on a URL name

The string includes the port and is followed by the WebService end point name “EventHostService”.

2. Start the XML Adapter.

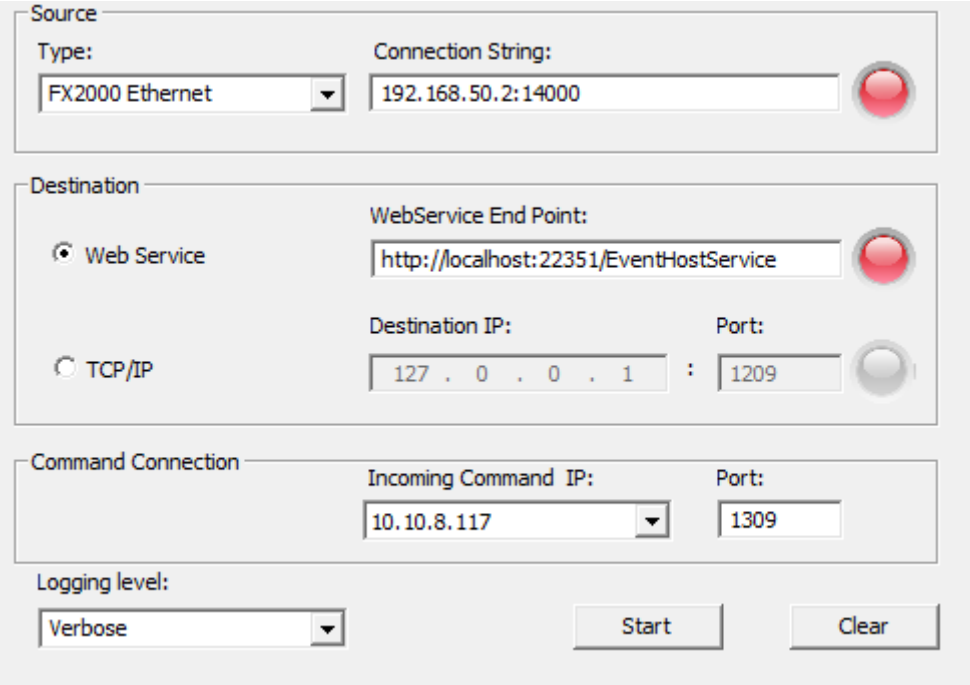


Figure 9 XML Adaptor -- Web Services

3. Define the following parameters:

Type	Select the physical port that you are connecting to the FACP.
WebService	Select this radio button.
WebService Endpoint	The URL of the FACP.
Destination IP	The IP address of the PC with OpenGN installed.
Port	The port of the PC with OpenGN installed.
Incoming Command IP	The IP address of the PC with the XML Adapter installed.
Port	1309. This must be a different port than what is listed above.

4. Click Start to initiate the connection process. Once connected to the panel the Source light will turn from red to green.

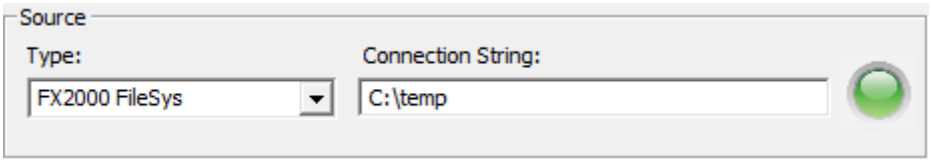


Figure 10 Web Services -- Source Connected

5. Start OpenGN. Once connected to OpenGN the Destination light will turn from red to green.

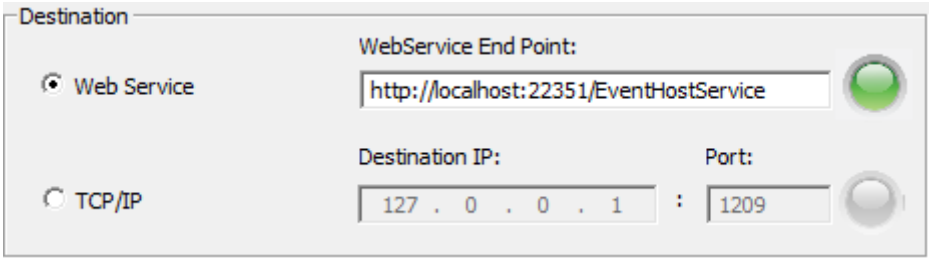


Figure 11 Web Services -- OpenGN Connected

2.5 Uninstalling OpenGN Applications

OpenGN component uninstallation occurs from each application and uninstalls the applications on each server.

To uninstall OpenGN and its components

Method 1

1. From Windows select **Start > All Programs > Mircom Group of Companies > Open Graphic Navigator > Uninstall OpenGN**.

Method 2

1. From Windows select **Start > Control Panel**. Double-click **Add or Remove Programs**. The Add or Remove Programs dialog box appears.
2. Choose the OpenGN application and select **Remove**. The uninstallation takes a few seconds.

Note: Uninstall does not remove .NET and MS SQL components. You must manually uninstall these components. Before uninstalling the .NET and MS SQL components ensure that no third party applications depend on them.

3.0 Navigating OpenGN

OpenGN is comprised of two main screens, the Main Display window and the Configuration window.

This chapter provides an overview of the layout and functions of the Main Display and Configuration windows of OpenGN.

This chapter explains

- The Main Display window
- The Configuration window
- Using the Surveillance Area
- Using the Event Log

3.1 Starting OpenGN

Attention: Users with CodeMeter USB sticks!

Before launching OpenGN insert your CodeMeter USB stick into a USB port (on the PC that will be running OpenGN).

Failure to do so will cause OpenGN to run in a limited functionality DEMO mode. Additionally, do not remove the USB stick while OpenGN is running. Issues arising from doing so will not be supported.

To launch the OpenGN double click the shortcut on your desktop or click **Start > All Programs > Mircom Group of Companies > Open Graphic Navigator > Open Graphic Navigator**.

An alternative method of launching OpenGN is to browse to where the application was installed)for example the default location when installed under Windows 7 is C:\Program Files (x86)\Mircom Group of Companies\Open Graphic Navigator) and launch OpenGN.exe.

3.1.1 Login to OpenGN

After launching OpenGN you will be taken to the Login Window.

To Login to OpenGN

1. From the Login dropdown menu select the desired user.
2. Enter the password.
3. Click **OK** and the Main Display screen appears.

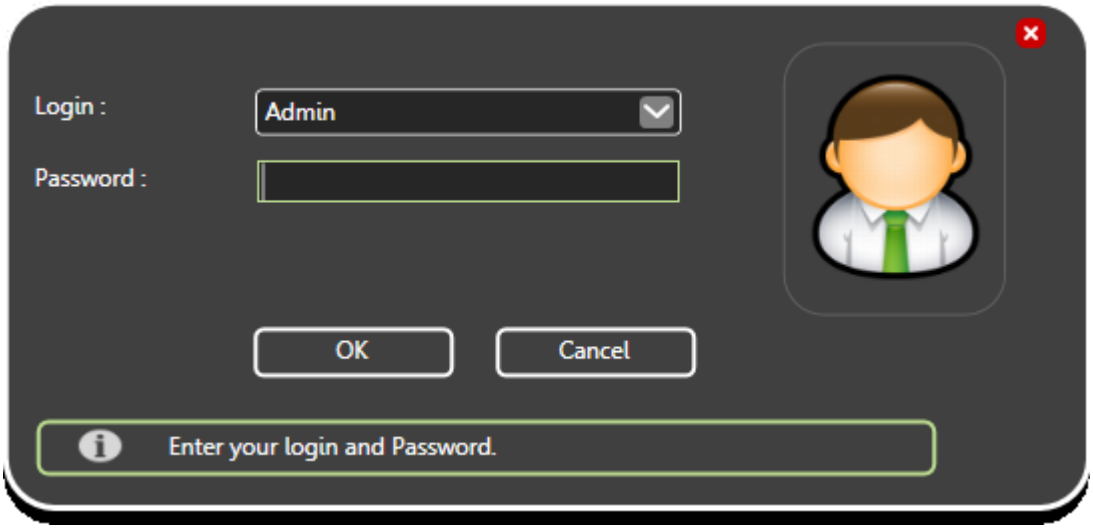


Figure 12 Login Screen

Note: Changing passwords is only available after logging into OpenGN.

3.2 Main Display Window

After logging in to OpenGN you will be taken to the Main Display window. All networked device information appears in the Surveillance Area depending on the configuration and viewing mode. The following figure describes the different areas of the Main Display window.

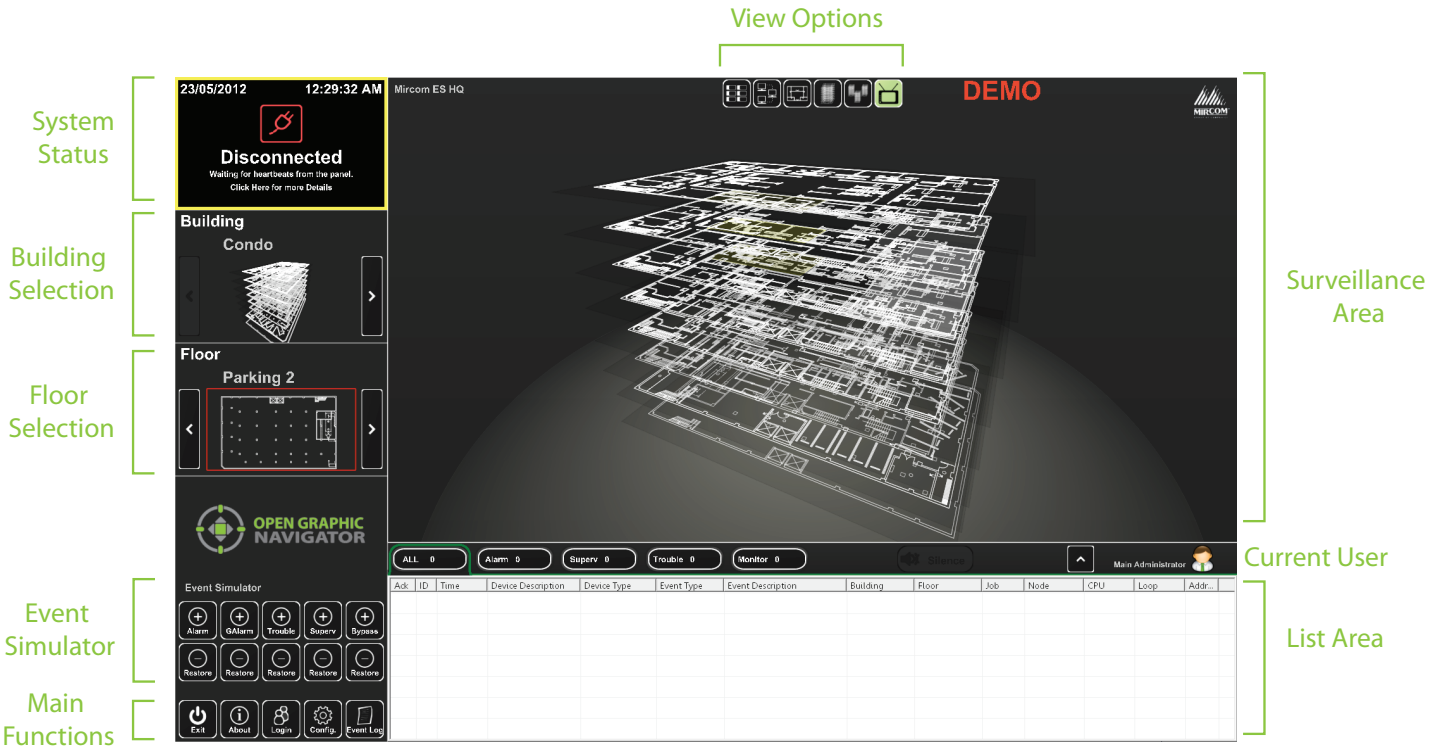


Figure 13 Main Display window

System Status	Displays status information such as the connection state and operation progress.
Building Selection	Pressing the arrows allows you to cycle through the buildings in the campus.
Floor Selection	Pressing the arrows allows you to cycle through the floors of the selected building.
Event Simulator DEMO Only	Pressing the accompanying **+** and **-** buttons allows the user to simulate the activation and restoral of **Alarms**, **General Alarms**, **Troubles**, **Supervisory Events** and **Bypass Events**.
Main Functions	This section contains the **Exit**, **About**, **Login**, **Config.** and **Event Log** buttons. For more information see Table 4.
View Options	Allows you to change the manner in which the information is displayed in the Surveillance Area. The options are **Switches, Network**, **2D View**, **Building View**, **Campus View** and **Auto-watch View**.
Surveillance Area	Displays the requested information from the **Building Selection**, **Floor Selection** and **View Options** areas.
Current User	Displays the currently logged in user.
List Area	Displays and allows the user to manage all active Events. For more information see Chapter 6.0 Managing Events

3.2.1 Main Function buttons

Table 4 describes the Main Function buttons located in the bottom left corner of the Main Display window.

Table 4 Main Function button descriptions

Main Function Button	Description
Exit	Pressing this button exits OpenGN. You will be asked to confirm that you wish to exit the application.
About	Pressing this button displays the Version number, copyright information, and company contact information. If a CodeMeter stick is detected then License Type information will also be displayed.
Login	Pressing this button displays the login screen allowing a different user to be logged in or to change the password of the existing user. For more information see 3.4 Login Window.
Config.	Pressing this button opens the Configuration window. For more information see 3.5 Configuration Window.
The Event Log	Pressing this button displays a printable log report from the database in a preview window. All events are tracked in the log file. For more information see 3.6 Using the Event Log.

Attention: Only users with Technician access or higher can use the Exit and Config. buttons.

3.3 Navigating the Surveillance Area

The Surveillance Area displays a two or three dimensional view of Buildings and Floors. You establish a view in the Surveillance Area by:

- Selecting a building using the Building Selection tool.
- Selecting a floor using the Floor Selection tool.
- Selecting one of the View Options.

The view in the Surveillance Area can be navigated by using the mouse, keyboard or touchscreen. Using a touchscreen allows for the usage of rotation sliders to aid in modifying the viewing angle of the Surveillance Area. To enable the rotation sliders click **Config. > Settings > Display Settings > Show Rotation Sliders**.

To navigate the Surveillance Area with a mouse

Drag	Click the left button and drag the building or floor plan in any direction to reposition the display and centre the area of interest.
Rotate	To rotate a view, position the cursor on the screen and hold the RIGHT mouse button as you drag the mouse left or right to rotate the view. (*Building/Campus view*)
Tilt	To tilt a view, position the cursor on the screen and hold the RIGHT mouse button as you drag the mouse up or down to tilt the view. (*Building/Campus view*)
Zoom	Depending on your mouse there are two zoom methods • Scroll the wheel up or down to zoom in or out. • Press the middle mouse key and move the mouse up and down to zoom in or out.
Reset View	To reset the view, right click the surveillance area and select reset view. (*2D View)*

To navigate the Surveillance Area with a keyboard

Drag	Use the arrow keys to reposition the display.
Rotate	To rotate a view, hold down the shift key and use the left and right arrow keys. (*Building/Campus view*)
Tilt	To tilt a view, hold down the shift key and use the up and down arrow keys. (*Building/Campus view*)
Zoom	Use the + and - keys to zoom in or out on the current view.
Reset View	Enter key.

To show the rotation sliders on a touchscreen

- Click **Config. > Settings > Display Settings > Show Rotation Sliders**.

To navigate the Surveillance Area with a Touchscreen

Tilt	To tilt the view, press the vertical rotation slider in the direction you wish to rotate.
Navigate screen	Press the screen and drag your finger up, down, left and right.
Rotate	To rotate a view, press the horizontal rotation slider in the direction you wish to rotate.

3.3.1 View Option Buttons

Table 5 describes the six View Option buttons located at the top of the Surveillance Area.

Table 5 View Option button descriptions

View Option Button	Description
Switches View	Displays a visual representation of an annunciator. It is recommended that Fire Control Switches are placed here. If configured to meet listing agency requirements control functions can be performed. See 6.3 Using the Control Functions on page 92.
Network View	Displays a list and connection status of all imported jobs.
2D View	Displays a 2D representation of the selected floor of the selected building in the Surveillance Area.
Building View	Displays a 3D representation of the selected Building in the Surveillance Area.
Campus View	Displays a 3D representation view of all buildings in the selected Facility in the Surveillance Area.
Auto-watch View	Displays a rotating three dimensional campus view of all the buildings and floors using a user defined interval in the Surveillance Area.

3.3.2 Using the Event List Area

The list area displays all active events. To quickly acknowledge the event, check the corresponding box. Right clicking an event allows you to further manage the event. For more information on managing events see Chapter 6.0 Managing Events.

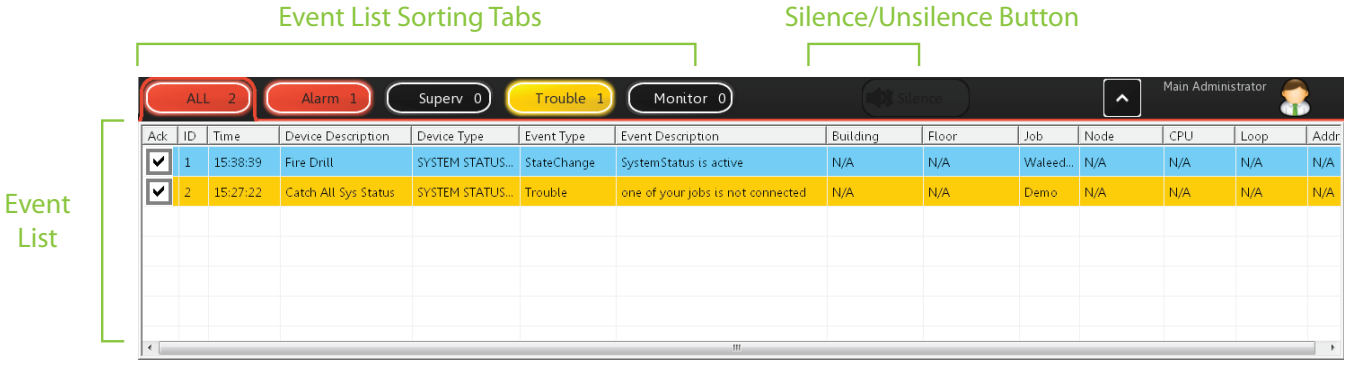


Figure 14 List Area

Event List

Displays a color coded list of active events with the following information:

- Acknowledge
- Event ID
- Event Timestamp
- Device Description
- Device Type
- Event Type
- Event Description
- Building
- Floor
- Job
- Node
- CPU
- Loop
- Device Address

Event List Sorting Tabs

The event list can be sorted to show events of the following types:

- All
- Alarm
- Supervisory
- Trouble
- Monitor

Action Buttons

Contains the **Silence\Unsilence**, **Acknowledge All**, **Expand\Collapse List** buttons, and displays the Current User.

3.3.3 Action Buttons

Table 6 Action Buttons

Action Buttons		Description
	Silence	This button is grayed out during system normal. Once a device is activated press this button to silence the audible tone emitted by OpenGN. This is not a Signal Silence button.
	Unsilence	This button activates once a device has been silenced. Press this button to enable the audible tone emitted by OpenGN.
	Expand\Collapse List	Clicking this button expands and collapses the List Area.

3.4 Login Window

The Login window allows for the current user to be changed or to change the password of the current user.

To Change the current user

1. From the Login dropdown menu select the desired user.
2. Enter the password.
3. Click **OK**.

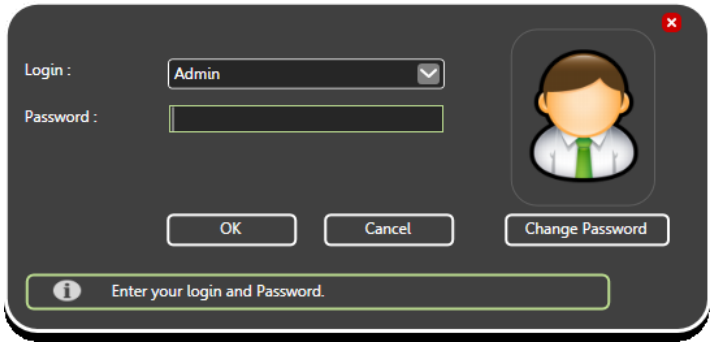


Figure 15 Login Screen

To Change the password of the current user

1. To change the password of the current user click **Change Password**. The Change Password window appears.

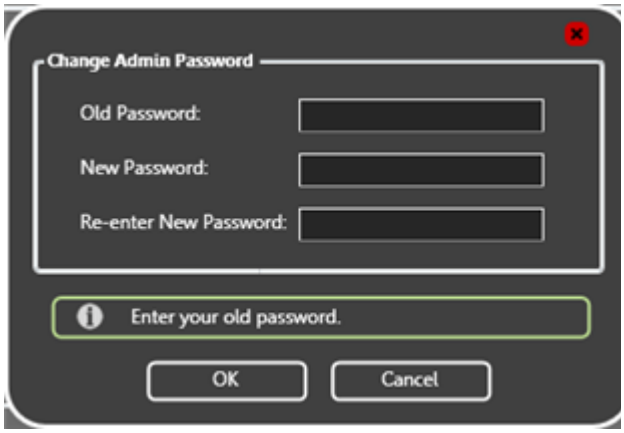


Figure 16 Change Password

2. Type your Old Password into the Old Password text box.
3. Type a password of 16 characters or less into the New password text box.
4. Type the same password into the Verify new password text box.
5. Click OK to save the information and return to the Configuration window, or click Cancel to exit without saving the changes.

Note: Changing passwords is only available after logging into OpenGN.

3.5 Configuration Window

Pressing the **Config.** button on the Main Display window takes you to the Configuration window. The Surveillance area displays a 2D view of the selected Floor and Building.

Various application settings can be configured by clicking the **Settings** button. For more information on configuring OpenGN see Chapter 4.0 Configuration Settings.

Devices can be placed by dragging them from the Job Tree to the Surveillance Area. For more information see Chapter 5.0 Configuring Devices and Zones.

Figure 17 Configuration window

The Main Display window is structured as follows

Job Tree — All devices appear in the Job Tree within the following hierarchy: Job > Node > CPU > Loop > Device.

Zone and Shape Tree — Lists all zones and the shapes assigned by zone. Unassigned shapes are listed in the unassigned tree.

Floor Selection — Clicking the onscreen arrows allows you to cycle through the floors of the selected building.

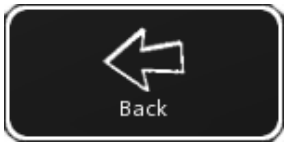
Building Selection — Clicking the onscreen arrows allows you to cycle through the buildings in the campus.

Surveillance Area	Displays the requested information from the **Building Selection**, **Floor Selection** in **2D View**. Only 2D navigation functions are available on the Configuration window Surveillance Area.
Tools	This section contains the **Selection**, **Text**, **Icon**, **Filled Rectangle** and **Empty Rectangle** buttons.
Color and Brightness Tools	Select the desired color. The currently selected color will be shown in the large box immediately above the group of colors. The slider bar manages the brightness and opacity.
Configuration Functions	This section contains the **Taskbar**, **Settings**, and **Back** buttons. For more information see Table 7.

3.5.1 Configuration Function Buttons

Table 7 describes the Configuration Function buttons located in the bottom right hand corner of the Configuration window.

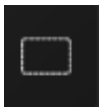
Table 7 Configuration Function button descriptions

Configuration Function Button	Description
Taskbar	OpenGN is designed to run using the maximum monitor display area. Clicking this button allows the user to access the Windows taskbar.
Settings	Clicking this button allows the user to configure the following settings: • Panel Settings • Facility Settings • Display Settings • Icon Settings • Device Type Settings • Event Log Settings • Email Notification Settings • Database Settings • Connection Settings • User Settings For more information on configuring OpenGN see Chapter 4.0 Configuration Settings.
 **Back**	Clicking this button opens the Main Display window.

3.5.2 Tools

Describes the Tool buttons located in the top left corner of the Configuration window.

Table 8 Tool button descriptions

Tool Button	Description
Selection	Selects items placed in the Surveillance Area.
Add Image	Clicking this button allows the user to import and place an image in the Surveillance Area.
Text	Clicking this button allows the user to place new or edit existing text in the Surveillance Area. The color of the text can be selected by clicking the desired color in the Text Color Section.
 **Zone Tool - Empty Rectangle**	Clicking this button allows the user to draw an empty rectangle that can be assigned to a new or existing zone.
Zone Tool - Filled Rectangle	Clicking this button allows the user to draw a filled rectangle that can be assigned to a new or existing zone.

3.5.3 Job Tree

The Job Tree is located on the left side of the Configuration window. Clicking on the + and - icons expands and collapses the tree respectively.

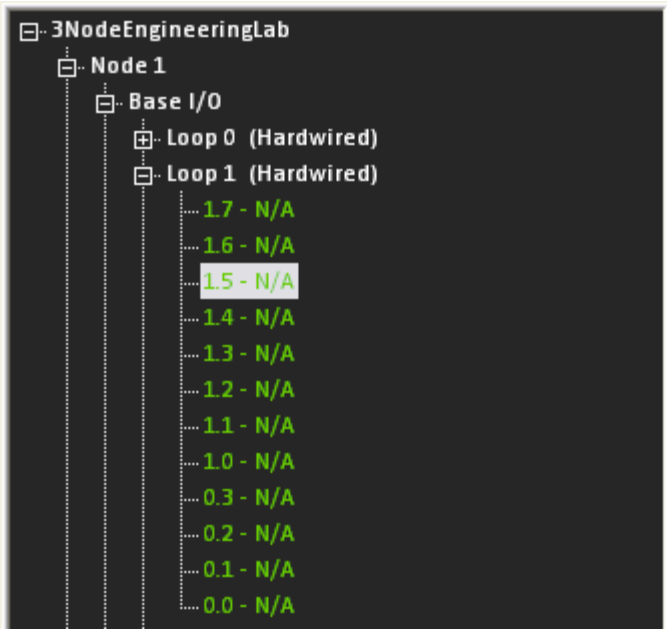


Figure 18 Job Tree Hierarchy

The Job Tree hierarchy is structured as follows:

Job	The Job contains Nodes, Base I/Os, Loops and Devices.
Node	A node is a fire panel that monitors and controls through the Base I/O. The master panel is always designated by the top level Job.
Base I/O	The Base I/O is the CPU inside the fire panel. Each CPU is dedicated to processing alarm, audio and LCD annunciation data. Each CPU receives data from a Loop.
Loop	A Loop is a circuit that all addressable devices are on.
Device	A device is a fire monitoring unit. The device placement state is shown by color. **Green** - Device is placed on the floor plan. **Red** - Device is not placed. **Grey** - Status of a device that is not visible.

Note: By default, all devices are visible after importing the XML file.

3.5.4 Zone and Shape Tree

The Zone and Shape Tree is located on the left side of the Configuration window below the Job Tree. Clicking on the + and - icons expands and collapses the tree respectively.

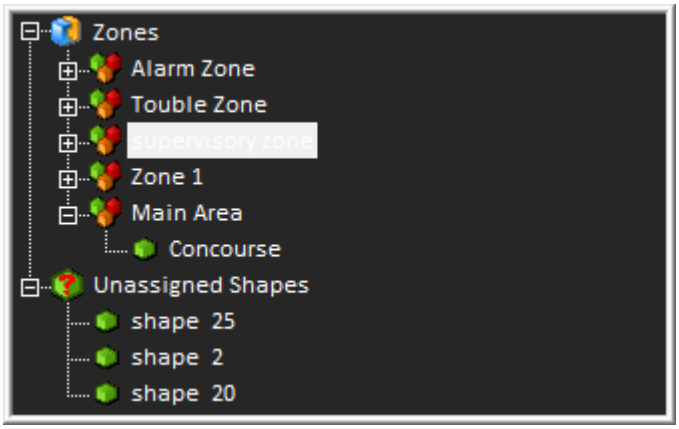


Figure 19 Zone and Shape Tree Hierarchy

The Job Tree hierarchy is structured as follows:

Zones	Zones contains all the existing Zones and the devices assigned to them.
Unassigned Shapes	Lists all shapes that are not assigned to Zones.

3.6 Using the Event Log

The Event Log records all system events and alarms and their event log criteria. The Event Log criteria selection is established by the administrator. For more information on Event Log criteria see Section 4.6 Event Log Settings.

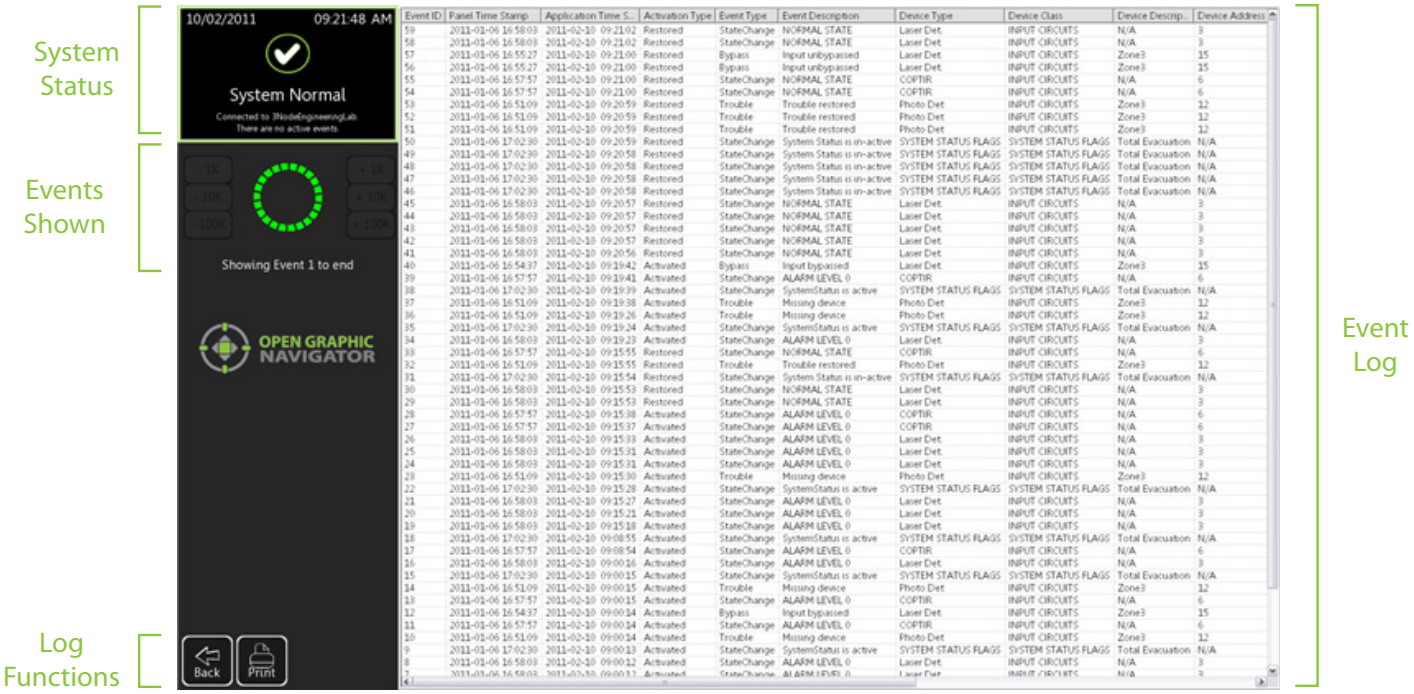


Figure 20 Event Log

System Status Displays status information such as the connection state and operation progress.

Events Shown The Event Log is populated by connecting to the database. Once all events have been loaded, “Showing Event 1 to end” is displayed.

Log Functions This section contains the **Back** and **Print** buttons. For more information see Table 9.

Event Log The Event Log displays all alarms and other system events and their event log criteria. For more information on setting the event criteria see Section 4.6 Event Log Settings.

Note: The Event Log is currently not sortable. To print a filtered or sorted list, use the Print Feature. For more information see Section 3.6.2 Printing the Event Log Report.

3.6.1 Log Buttons

Table 9 describes the two Log Option buttons located at the bottom left of the Event Log.

Table 9 Log button descriptions

Log Button	Description
Back	Clicking this button opens the Main Display window.
Print	Clicking this button opens the Print Event Log Report. For more information see Section 3.6.2 Printing the Event Log Report.

3.6.2 Printing the Event Log Report

Clicking the **Print** button on the Event Log screen opens the Print Event Log Report window. It is possible to filter and sort the report based upon user defined criteria.

To Print an Event Log Report

1. From the Main Display window click the **Event Log** button.
2. From the Event Log click the **Print** button. The Print Event Log Report window appears.

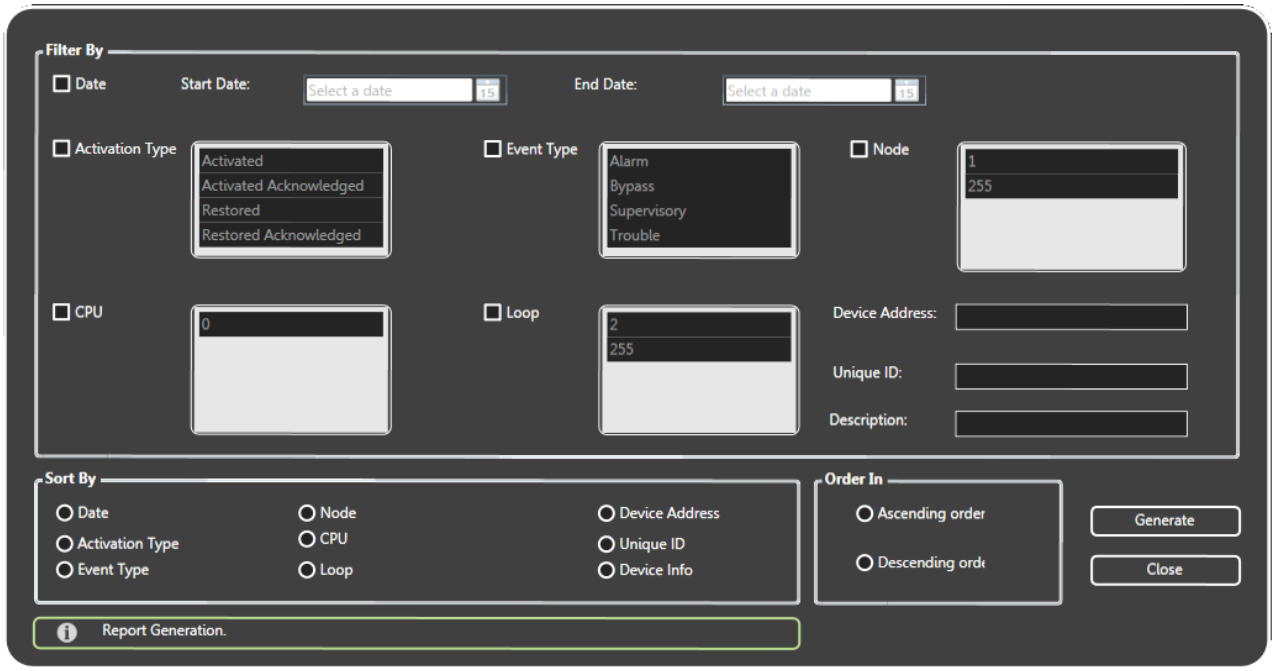


Figure 21 Print Event Log Report window

3. To filter the report, click the corresponding check box and define the following parameters.

Attention: Filtering reports is not in compliance with regulatory agencies.

Start Date	Clicking the dropdown menu opens a calendar tool to select the Start Date to begin filtering events.
End Date	Clicking the dropdown menu opens a calendar tool to select the End Date to finish filtering events.
Activation Type	Click the desired Activation Types to filter by. If no items are selected all activation types will be included in the report. To clear a filter selection click the highlighted item.
Event Type	Click the desired Event Types to filter by. If no items are selected all event types will be included in the report. To clear a filter selection click the highlighted item.
Node	Click the desired Nodes to filter by. If no items are selected all Nodes will be included in the report. To clear a filter selection click the highlighted item.
CPU	Click the desired CPU to filter by. If no items are selected all CPUs will be included in the report. To clear a filter selection click the highlighted item.
Loop	Click the desired Loops to filter by. If no items are selected all Loops will be included in the report. To clear a filter selection click the highlighted item.
Device Address	The address of the device circuit.
Unique ID	The unique ID panel address.
Description	A device based description.

4. To determine how you want to sort the report, click one of the following radio buttons. If no button is selected, an unfiltered report will be generated.

- Date
- Activation Type
- Event Type
- Node
- CPU
- Loop
- Device Address
- Unique ID
- Device Info

5. To determine the desired order of sorting select the Ascending or Descending order radio button.
6. Click **Generate**. The Application Report Viewer Window appears (Figure 22).
7. From here you can navigate the report before printing. When satisfied click the **Print** icon.

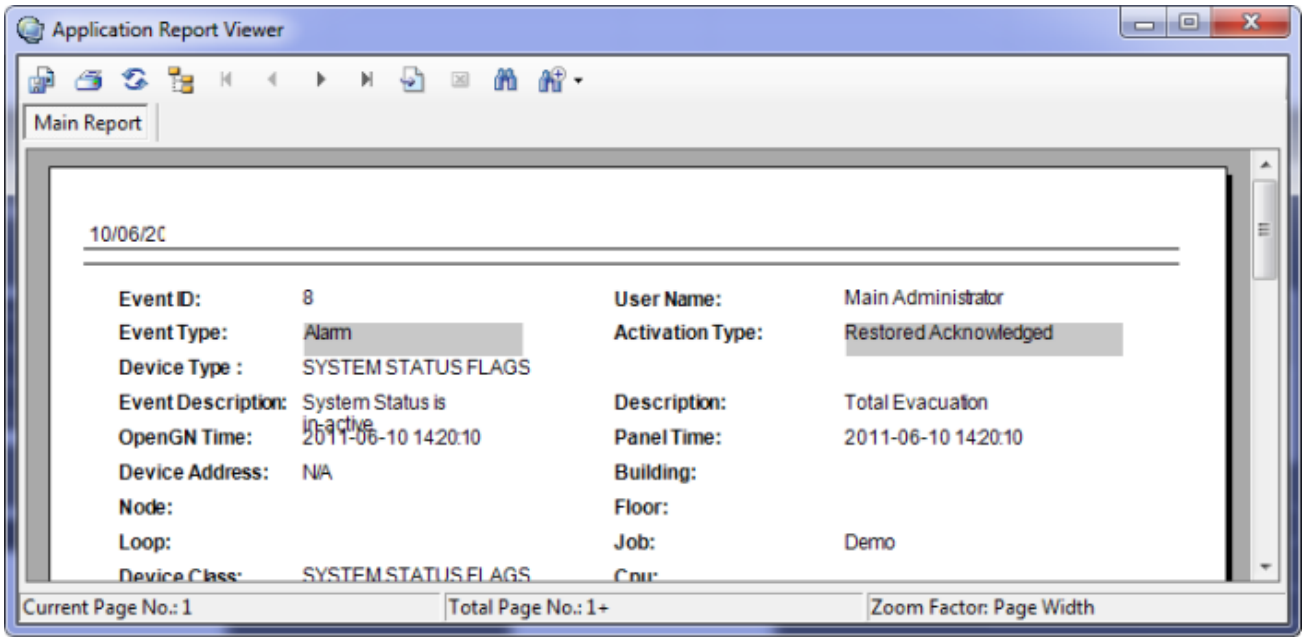


Figure 22 Application Report Viewer

Table 10 Application Report Icons

Log Button	
	Export Report
	Print Report
	Refresh
	Toggle Group Tree
	Scroll Pages
	Goto Page
	Close Current View
	Find Text
	Zoom

4.0 Configuration Settings

The following items can be configured by clicking the Settings button on the lower left hand corner of the Configuration window:

This chapter explains

- Panel Settings
- Facility Settings
- Display Settings
- Icon Settings
- Device Type Settings
- Event Log Settings
- Email Notification Settings
- Database Settings
- Connection Settings
- User Settings

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES			
This product incorporates field-programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.			
Program feature or option	Permitted in UL 864? (Y/N)	Possible settings\methods	Settings permitted in UL 864
Filterable Report Generation	NO	FIlter report by Date, Activation Type, Event Type, Node, CPU, Loop, Device Address, Unique ID, Description	All events must be reported. Filtering is not permitted.
Display Mode	YES	Dual Monitor, Graphics and List, Graphics Only, List Only	Dual Monitor, Graphics and List
Supervision Mode	YES	Supervised Mode, Non-Supervised Mode	Supervised Mode

4.1 Panel Settings

The Panel Settings window allows the user to cycle through the selected Fire Panel, displays the Details for the selected panel, and configure the selected panel with the XML file from the FACP.

4.1.1 Selecting the Panel

Click on the Select Panel dropdown menu to choose from any previously imported Fire Panel. After choosing the desired panel, the Panel Details will then be displayed. There is also an option to delete a panel.

To Delete a Panel

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings**. The Panel Settings window appears (Figure 23).
3. Select the Panel from the Panel dropdown menu.
4. Click **Delete**.

4.1.2 Panel Details

A fire panel has two types of identification numbers, Panel GUID and Version GUID. The GUIDs are used to establish panel connectivity status.

Panel Guid	A fire Panel's unique identification number that is generated when a job is created in the FACP configurator. This GUID is stored on the FACP and embedded in the XML file that is imported into OpenGN. When the FACP is connected to OpenGN via the XML Adaptor, the Panel GUID is compared to verify that OpenGN is connected to the correct panel. If it is the wrong panel an Unknown Panel Event System Message is generated. For more information see about status messages see Section 7.2 Status Message Descriptions.
Version Guid	The Version GUID is modified whenever a job is edited in the FACP configurator. This GUID is stored on the FACP and embedded in the XML file that is imported into OpenGN. When the FACP is connected to OpenGN via the XML Adaptor, the Panel GUID is compared to verify that the job version matches what is stored on the FACP. If the version does not match a Version GUID Mismatch System Message is generated. For more information see about status messages see Section 7.2 Status Message Descriptions.
Manufacturer	Fire Panel Manufacturer.
Description	Select this option to associate the device icon with the existing system icon images.
Model	Fire Panel Model.
Panel URL	Link to company website.

4.1.3 Importing the Config.XML File

OpenGN uses the config.xml file to create a hierarchical list of events, device types and classes. When importing the XML file the device icon images may be associated with the system default icons images.

Note: Whenever a device is added or removed from the addressable Fire Alarm System, the config.xml file must be updated and imported into OpenGN.

To import the XML file

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings**. The Panel Settings window appears (Figure 23).

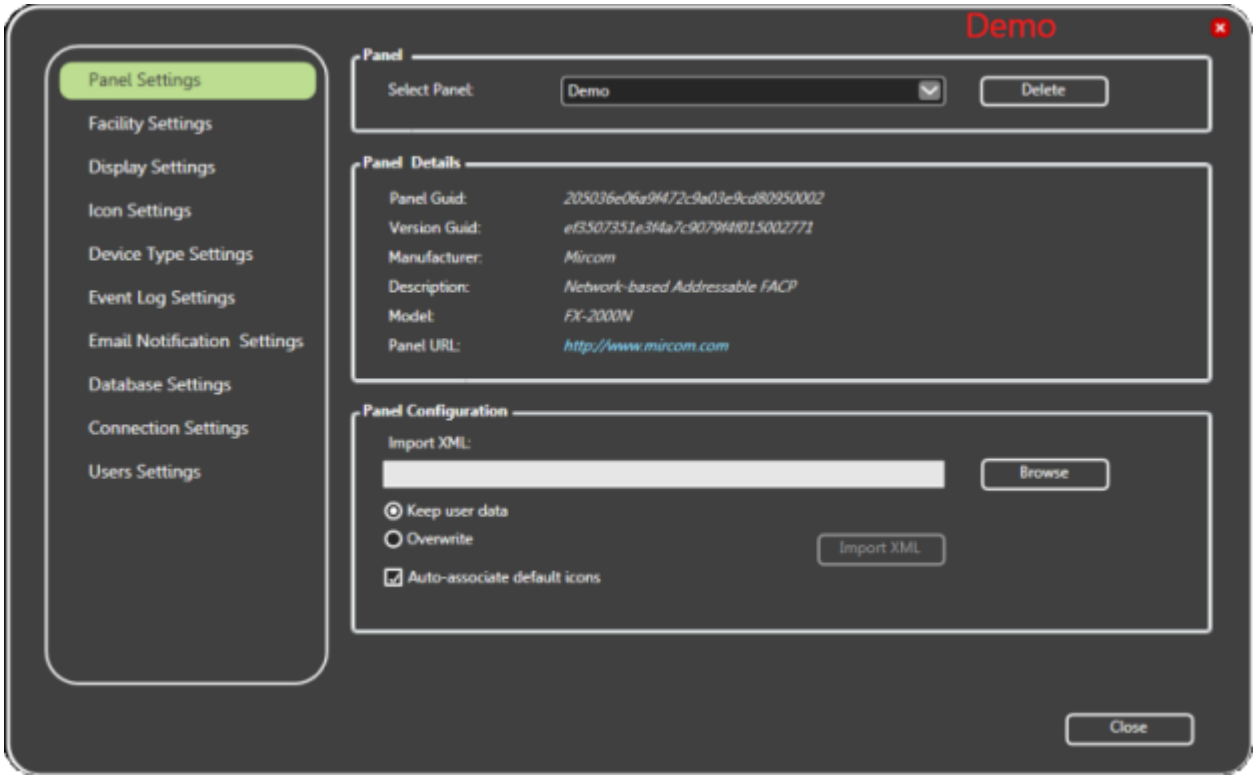


Figure 23 Panel Settings

3. In the Panel Configuration section **Browse** to the config.xml file.
4. Provide the following information when importing an XML file:

Keep user data	Select this option to import the XML file and keep the user data, including existing device information and location where the user data is kept.
Overwrite	Select this option to import the XML file and overwrite the existing database.
Auto-associate default icons	Select this option to associate the device icon with the existing system icon images.

5. Click **Import XML**. When completed a message appears indicating successful import of the XML file.
6. Click **Close** to apply the settings and return to the Configuration window or proceed with another configuration.

4.2 Facility Settings

The Facility Settings window is where the administrator:

- Enters the Facility Information.
- Names each Building that is a part of the Facility.
- Constructs the visual representation of the surveillance area by importing image files of individual Floor plans into OpenGN for each building in the facility.

4.2.1 Supported Floor Plan File Formats

OpenGN supports the following image file formats for importing Floor plans. They are listed from top to bottom in order of their recommended use.

Attention: MGC recommends not uploading any files larger than 25MB per floor.

Table 11 Supported Floor Plan File Formats

Supported File Type	Description
.svg	.svg is a vector based file format that ensures the quality of the drawings will not change regardless of the **Zoom** setting.
4 channel .png (RGBA)	4 channel .png includes alpha transparency. Floor plans will be transparent, enabling the user to view all floors of a building at the same time without obstruction.
3 channel .png (RGB) jpg bmp gif wmf (non-vector based)	These file formats do not support Transparency. OpenGN will convert white color to transparency.

After successfully importing the floor plans, the device icons can be arranged to specific locations on the floor plan to display an accurate representation of the surveillance area. For more information on devices see Chapter 9.0 Placing and Configuring Devices.

Note: For a description on how to convert .pdf files to .svg see Appendix E - Converting .pdf to .svg

To add a building plan

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Facility Settings**. The Facility Settings window appears (Figure 24)

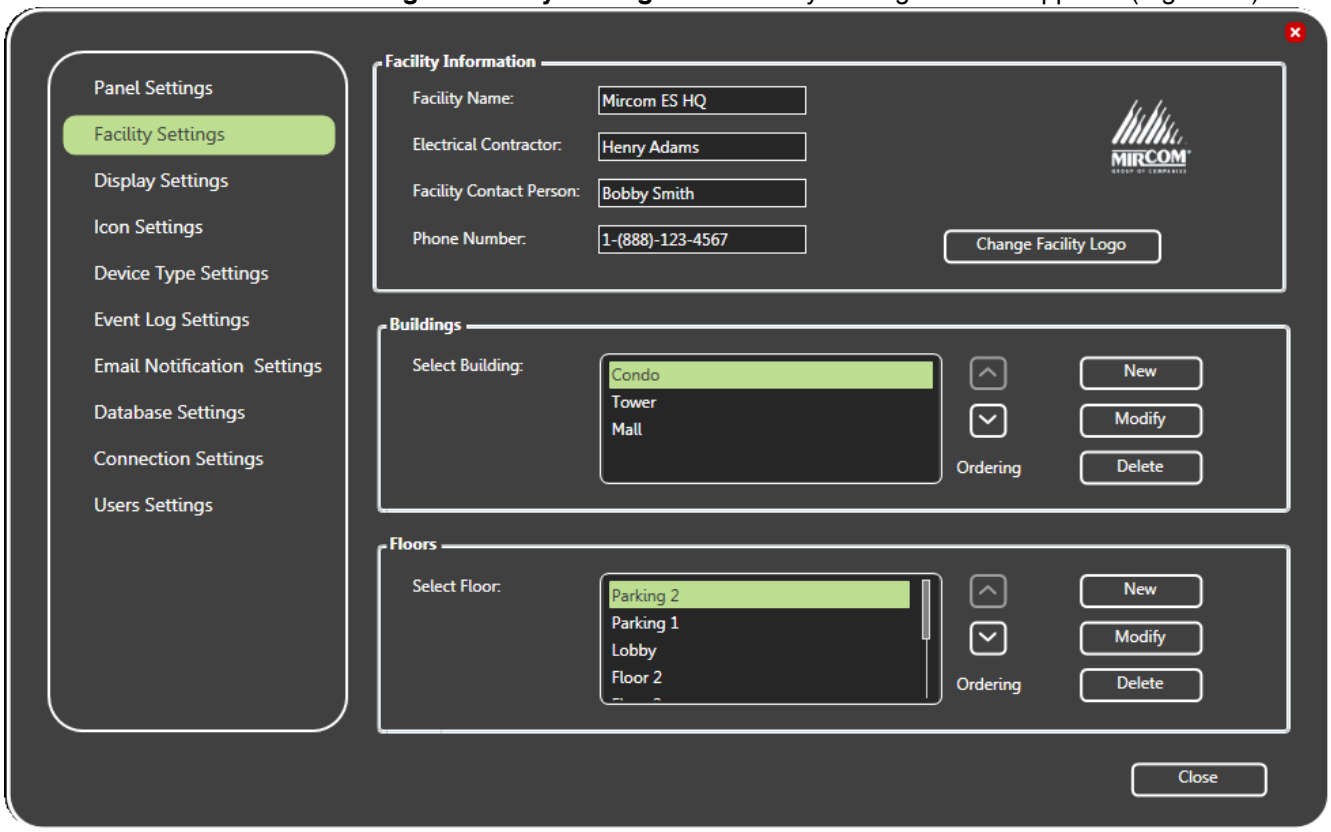


Figure 24 Facility Settings

3. In the Buildings area click **New**. The Building Properties window appears.

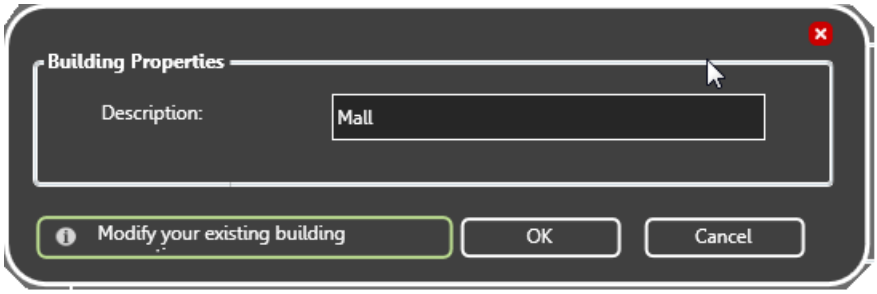


Figure 25 Building Properties

4. Provide the following building property information:

   Description Building name.

5. Click **OK** to save the information and return to the Panel Settings window, or click **Cancel** to exit without saving the changes.
6. Proceed with another configuration or click **Close** to save the settings and return to the Configuration window.

To add a floor plan

1. In the floor plan area, click **New**.

Figure 26 Floor Properties

2. Provide the following floor property information:

Description	Building name.
Translate X	Translates the floor to the left or right relative to the other floors.
Translate Y	Translates the floor to the top or bottom relative to the other floors.
Width	Set the width in meters.
Height	Set the height in meters.
Scale	This parameter sets the scale of the floor relative to any other floors.
Colored	Adds color to the floor plan.

3. Click **Select Floor Plan**. Browse to the file location and click **Open**. A preview image of the floor plan will now appear where the supported file format text is contained. If the floor plan has color and you would like OpenGN to import the colors click the **Colored** checkbox.
4. Click **OK** to save the information and return to the Facility Settings window, or click **Cancel** to exit without saving the changes.
5. Proceed with the device placement and configuration as described in Chapter 9.0 Placing and Configuring Devices or click **Close** to save the settings and return to the Configuration window.

4.3 Display Settings

OpenGN allows you to configure how you would like the Surveillance and List Areas displayed on the Main Display window. The display can include either:

- Graphic and list
- Graphics only
- List only

The default view of the Surveillance area is configurable as one of the following Views:

- 2D Floor Plan
- Campus View
- A specific Building

To configure the Display settings

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Display Settings**. The Display Settings window appears (Figure 27)

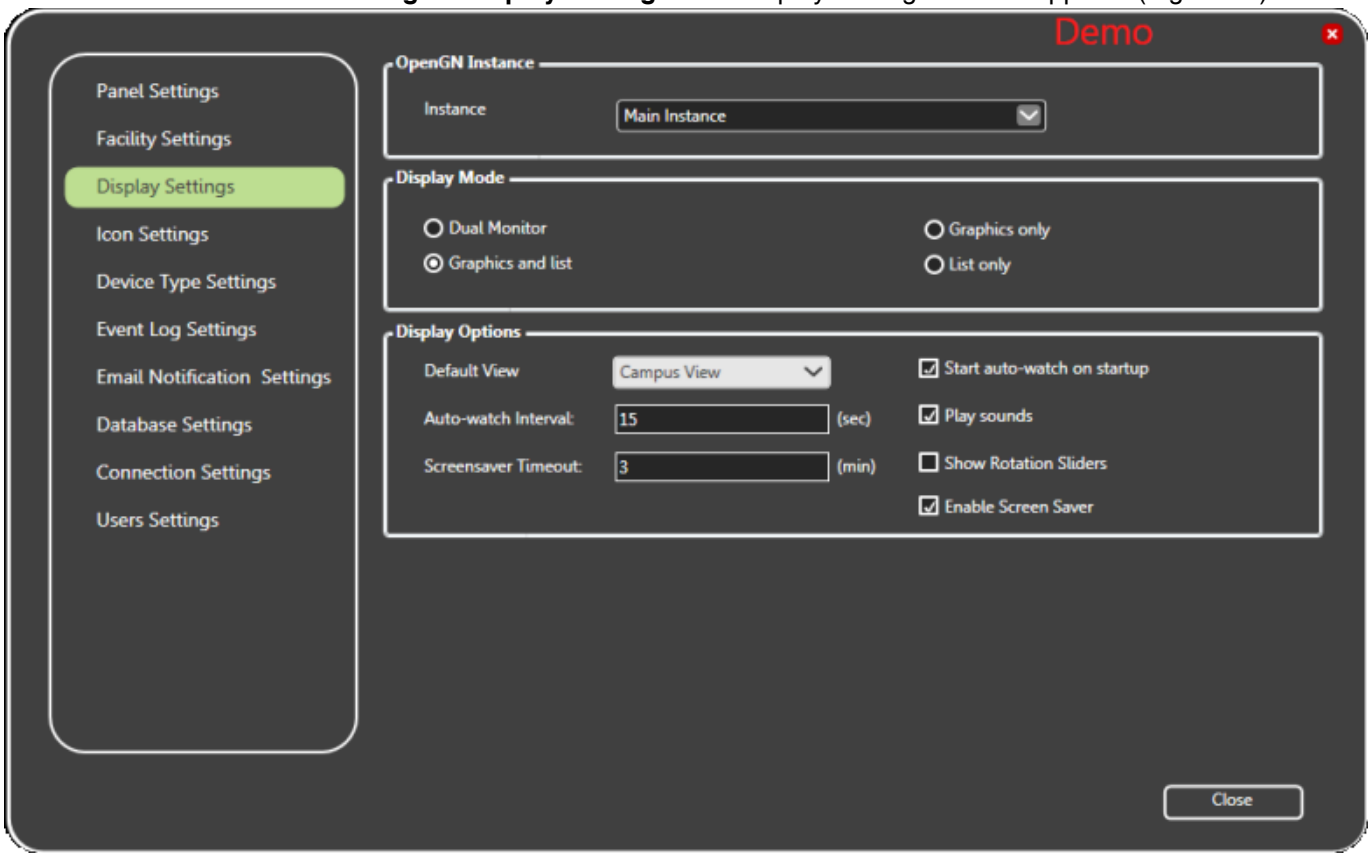


Figure 27 Display Settings

3. To determine which installation instance to display, select from the Instance dropdown menu.

4. To determine how you want the display settings to appear, select from the following display mode parameters:

Dual Monitor	Allows for dual monitor support.
Graphics and list	Shows both the Graphics and List areas.
Graphics only	Shows only the Graphics area.
List only	Shows only the List area.

Attention: To comply with UL 864 Rev.9 only Dual Monitor or Graphics and List are permitted.

5. To determine how you want the display options to appear, define the following parameters as explained:

Default View	Specify the default view as one of the following: • 2D Floor Plan • Campus View • Specified Building
Auto-watch Interval	Specifies the interval of time for each building to display.
Screensaver Timeout	Specify the amount of time before the screen saver begins playing.
Start auto-watch on startup	Enables the auto-watch feature on startup.
Play Sounds	Specifies if audible tone sounds when an event occurs.
Show Rotation Sliders	For use when OpenGN is being displayed on a touchscreen unit. Selecting the option enables the rotation sliders to be utilized to modify the viewing angle of the Surveillance Area.
Enable Screen Saver	Enables the OpenGN screensaver.

6. To determine the supervision mode select from the following supervision parameters.

Supervised	Requires the user to manually acknowledge all problems and restore events.
Non-Supervised	Automatically acknowledges events when the problem is restored.

Attention: To comply with UL 864 Rev.9 only Supervised is permitted.

7. Click **Close** to save the settings and return to configuration window.

4.4 Icon Settings

OpenGN has a premade set of visually customizable device icons.

To create or modify icon settings

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Icon Settings**. The Icon Settings window appears (Figure 28)

Figure 28 Icon Settings

3. To preview an inverted color background of a selected icon select the **Invert preview background** check box.
4. Click **New**. The Icon Properties window appears.

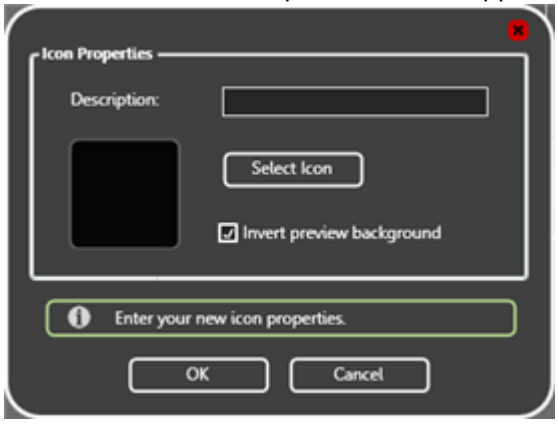


Figure 29 Icon Properties

5. To determine how you want the icon to display, define the following parameters:

Description	Provide a description about the icon. This field is mandatory and must be unique.
Select Icon	Click **Select Icon** to select an icon from an existing template in a directory.
Invert preview background	To preview an inverted color image of the selected icon.

6. Click **OK** to apply the settings and exit the Icon Properties window session or click **Cancel** to exit without selecting the icon.
7. Proceed with another configuration or click **Close** from the Icon Settings window to apply the settings and exit the session.

4.5 Device Type Settings

Devices are defined by function and state, and are associated with a corresponding icon. When an event, such as an alarm, occurs this device becomes active and displays its icon in the Surveillance Area.

Device events are indicated using animated rings. The inner most icon can also be changed to indicate device state. By configuring device settings you associate the device function and state with an appropriate icon.

By default device type and icon are associated. For a complete list of device types see the appendix. The default icon image is a question mark. To facilitate configuration, by default, device type and the corresponding icon are associated.

OpenGN displays images of every device on the map area, with the correct location in buildings and on floors, and color coding according to their configuration.

4.5.1 Device Types

The list of device types ranges from ion detectors to heat sensors with each device having a corresponding category:

Detector	Indicates that the device is a smoke, heat, or fire detector.
Module	Indicates that the device is a control or input device, such as a manual pull station or a water flow switch.
Other	Other category is used if the Detector or Module categories do not apply.

To define devices

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Device Type Settings**. The Device Type Settings window appears (Figure 30).

Figure 30 Device Type Settings

3. Select the following information:.

Select Device Type	Select a device from the list.
Select Device State	Select the state of the device for display.
Select Icon	Select the icon display information.

Note: When importing the XML file with the ‘auto-associate default icon’ selected, device type and the corresponding icon are associated.

4. Provide the following information device display size:

Width	Set the width in meters.
Height	Set the height in meters.

5. To invert the icon color background click the select the **Invert preview background** check box.
6. Proceed with another configuration or click **Close** from the Icon Settings window to apply the settings and exit the session.

4.6 Event Log Settings

OpenGN lets you select specific criteria for display in the Event Log.

The Event Log displays all recorded alarms and events that meet the search criteria entered in the Event Log Settings window. The data fields in the Event Log are listed by column according to the defined search criteria.

OpenGN automatically registers all events and alarms in its database regardless of the search criteria.

Clicking the **Event Log** button on the Main Display window opens the Event Log. For more information about the Event Log see Section 5.3 Using the Event Log.

To configure Event List Settings

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Event Log Settings**. The Event Log Settings window appears (Figure 31)

Figure 31 Event Log Settings

3. Select the check box beside the criteria you wish to have appear in the Event Log. To select all of the Event Logs categories click **Select All**. To de-select all of the categories click **Clear**:

Event ID	Every system event receives a unique identifier.
Panel Time Stamp	Every fire panel has its own clock.
OpenGN Time Stamp	OpenGN uses the PC clock to set its time.
Activation Type	Activation of an event.
Event Type	The type of event; Active, Trouble or Bypass.
Event Description	An event based description.
Device Type	Device types range from ion detectors to heat sensors.
Device Class	The family of devices a device belongs to.
Device Description	A device based description.
Device Address	The address of the device circuit.
Building Floor	The building floor map.
Job	The name and configuration of the master panel.
Node	The panel a device connects to.
CPU	The CPU responsible for establishing communications.
Loop	The circuit the device connects to.
Unique ID	The unique ID panel address.
User	Displays the user that acknowledge the event.

4. Proceed with another Settings configuration or click **Close** to apply the settings and exit the session.

4.7 E-mail Notification Settings

OpenGN allows for the configuration of the E-mail addressing feature to setup E-mail notification of events and alarms, and send a test message to verify the connection. E-mails will be sent from info@OpenGN.com.

Note: For ULC S527 and UL 864 applications E-mail notification is an ancillary feature.

To configure E-mail messages

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Email Notification Settings**. The Event Log Settings window appears (Figure 32)

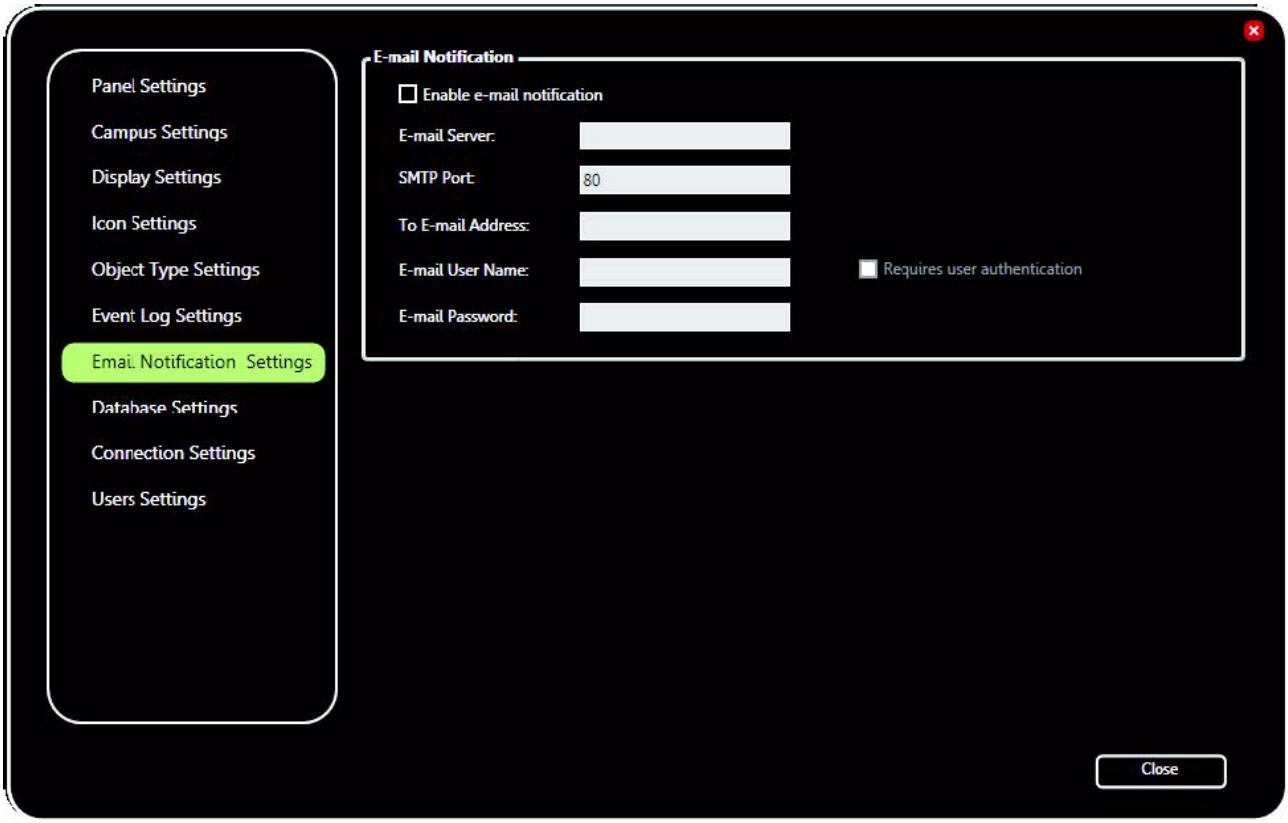


Figure 32 Email Notification Settings

3. Select the **Enable E-mail notification** checkbox and provide the following information:

Email server	Enter the E-mail service provider IP address.
SMTP Port	Provide the SMTP port information.
To E-mail Address	Enter the desired e-mail address to send notifications to. This can also be a distribution list.

4. Select the **Send Alarms** check box to enable e-mail notification of alarms.
5. Select the **Send Troubles** check box to enable e-mail notification of pending trouble conditions.
6. Select the **Send Pending Configuration Updates** check box to enable e-mail notification of configuration updates.
7. To setup e-mail user authentication select the **Requires user authentication** checkbox and provide the following information:

Email user name	Enter the e-mail user name.
Email password	Provide the e-mail password.

8. Proceed with another configuration or click **Close** to save the settings and return to the Configuration window.

4.8 Database Settings

The database contains user, Job and system log information, and can be saved to a specified location.

4.8.1 Setting Database Information

Database Settings lets you define the backup location for the Job, system messages and device configuration.

To setup database information

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Database Settings**. The Database Settings window appears (Figure 33)

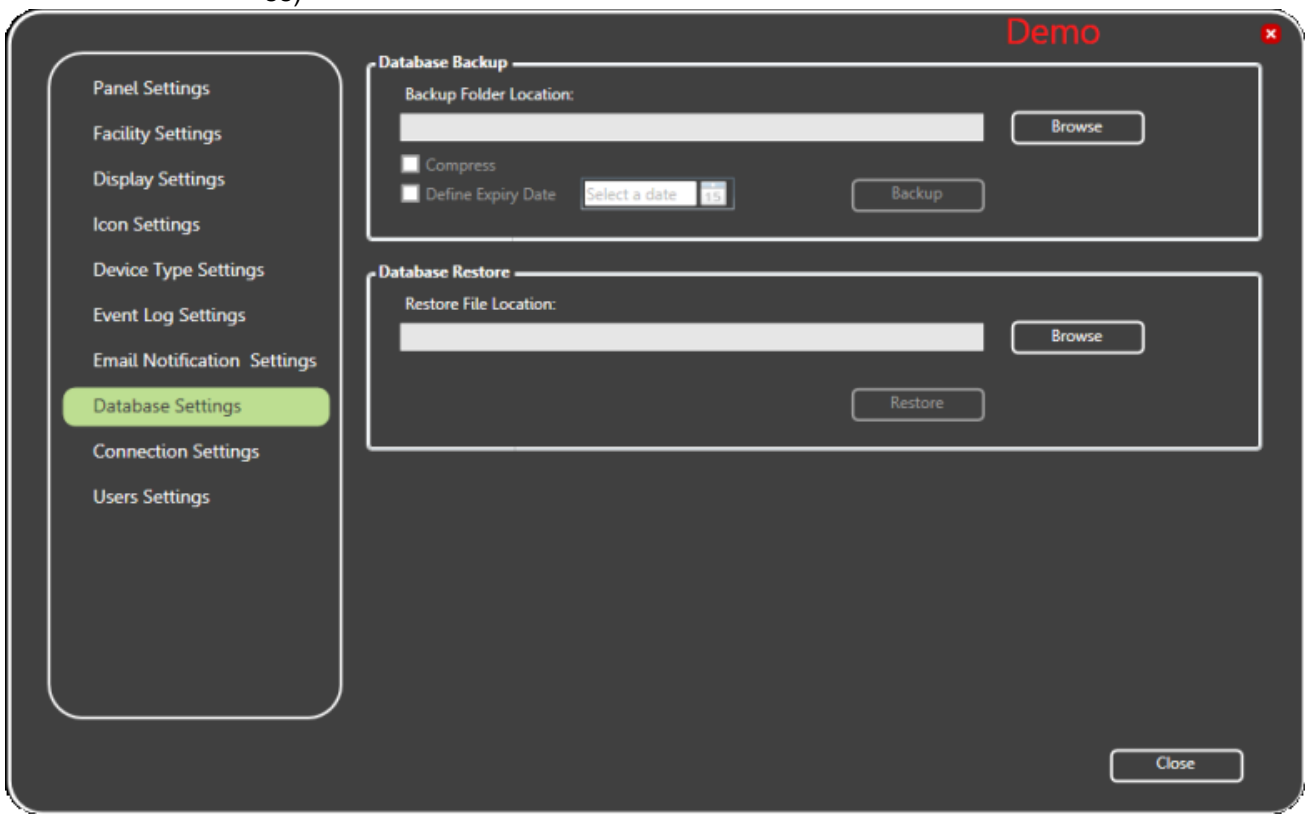


Figure 33 Database Settings

3. To specify the database backup location provide the following:

Backup Folder Location	Browse to the database backup location.
Compress	Select this check box to enable file compression. The database file is compressed by 50%.
Define Expiry Date	Selecting this check box enables you to provide the expiry date information.

4. Click **Backup** to produce the original database.
5. To specify the Database File Location, provide database restore location and click **Restore** to reproduce the original database.
6. Click **Close** to save the settings and return to the Configuration window.

4.9 Connection Settings

OpenGN can exist on individual or combined physical servers or as part of a customized server implementation.

The communication components of OpenGN, installed on the customer PC, allows communication and interaction with the xml adapter. The xml adapter resides on a web enabled server running the Microsoft Windows XP (or later) operating system with TCP/IP network access.

A successful connection session depends on the following conditions:

- Physical connection successfully established
- Config.xml successfully imported
- Panel GUID validated
- Version GUID validated

To view the Connection Settings

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Connection Settings**. The Connection Settings window appears (Figure 34)

Figure 34 shows the details for TCP/IP and the Event Host Web Service connections:

Figure 34 Connection Settings

4.9.1 TCP/IP

In an HTTP based network scenario the OpenGN application and the XML Adapter use Web Services for communication purposes.

A successful HTTP based connection shows the following TCP/IP parameters:

IP Address	IP address of the xml adapter.
TCP/IP Port	TCP/IP port of the xml adapter.
Subnet Mask	Subnet mask address of the network server.
Default Gateway	Default gateway address of the network server.

4.9.2 Event Host Web Service

The Web Service URL is a common address that specifies the location of the Web Service. A successful HTTP based connection shows the following Host Web Service parameters:

Web Service URL	The web address of the Host Web Service.
Status	Once connected the Open Graphic Navigator shows the status as connected.

4.9.3 DB Connection Details

The Database is managed by Microsoft SQL Express 2005 / 2008 running in the same location as the Main Instance of OpenGN. A successful connection to the database shows the following TCP/IP parameters:

IP Address	IP address of the Main Instance of OpenGN.
TCP/IP Port	TCP/IP port of the Main Instance of OpenGN.

4.9.4 Secondary Instance

When using Remote Nodes, in order to ensure a successful system configuration the Secondary Instances of OpenGN must be identified in the Main Instance.

To add a Secondary Instance

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > Connection Settings**. The Connection Settings window appears (Figure 34).
3. In the Secondary Instance field click **New** and the Connection Properties window appears.
4. To create the Secondary Instance provide the following:

Instance Name	Name of the Secondary Instance.
Connection Type	Select TCP/IP or Web Service.
IP Address	If TCP/IP selected enter the IP address of the workstation where the secondary instance will be installed.
Web Service URL	If TCP/IP selected enter the Web Service URL of the workstation where the secondary instance will be installed.

To edit a Secondary Instance

1. In the Secondary Instance section select the desired Instance and click **Modify**. The Connection Properties window appears showing the current Instance information. Modify the information as required and click **OK**.

4.10 User Settings

User Settings lets you create and manage User Groups and Users. Access Privileges are granted to User Groups and Users derive their rights from the Group they are assigned to.

To view User Groups and Users

1. Click the **Config.** button from the Main Display window and click **OK** to confirm that you want to enter the configuration section. The Configuration window appears.
2. Click **Settings > User Settings**. The User Settings window appears (Figure 33)

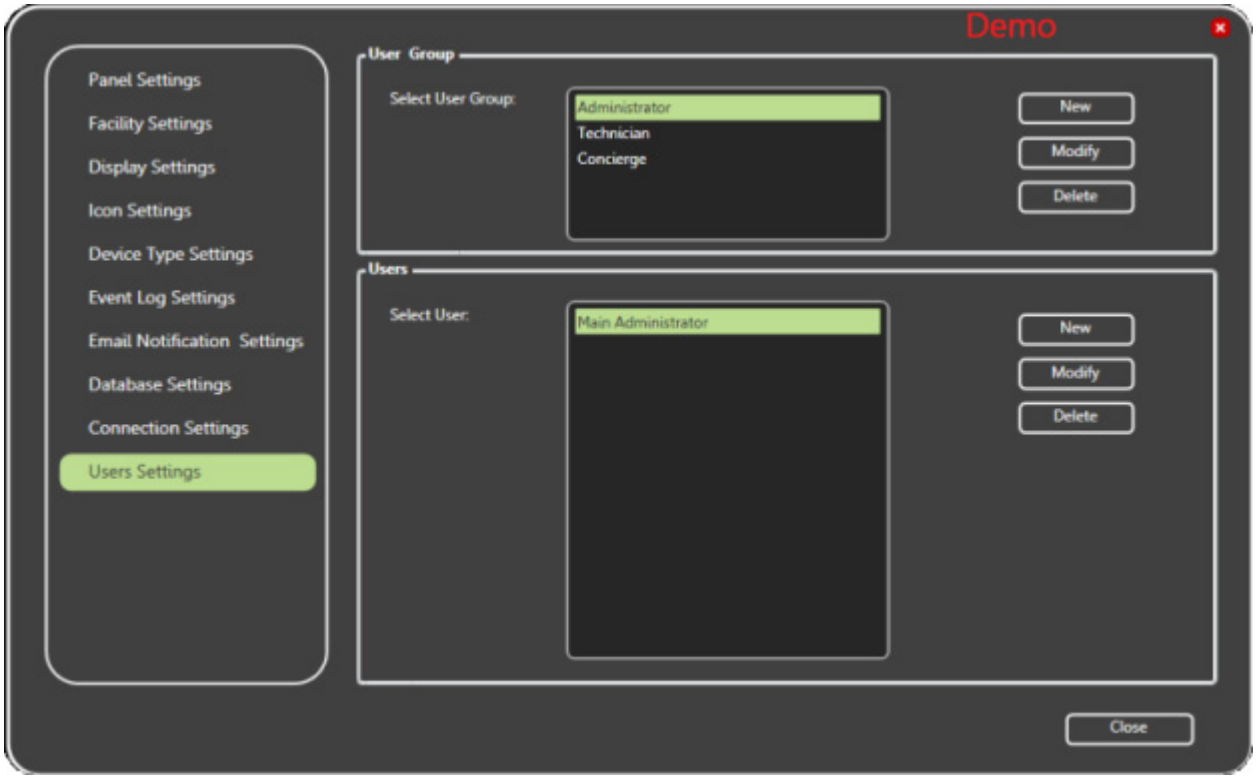


Figure 35 User Settings

4.10.1 Managing User Groups and Assigning Group Privileges

It is possible to create **New**, and to **Modify** or **Delete** existing User Groups. OpenGN has three default user Groups; Administrator, Technician, Concierge.

To create a new User Group

1. In the User Group section click **New**. The User Group window appears.

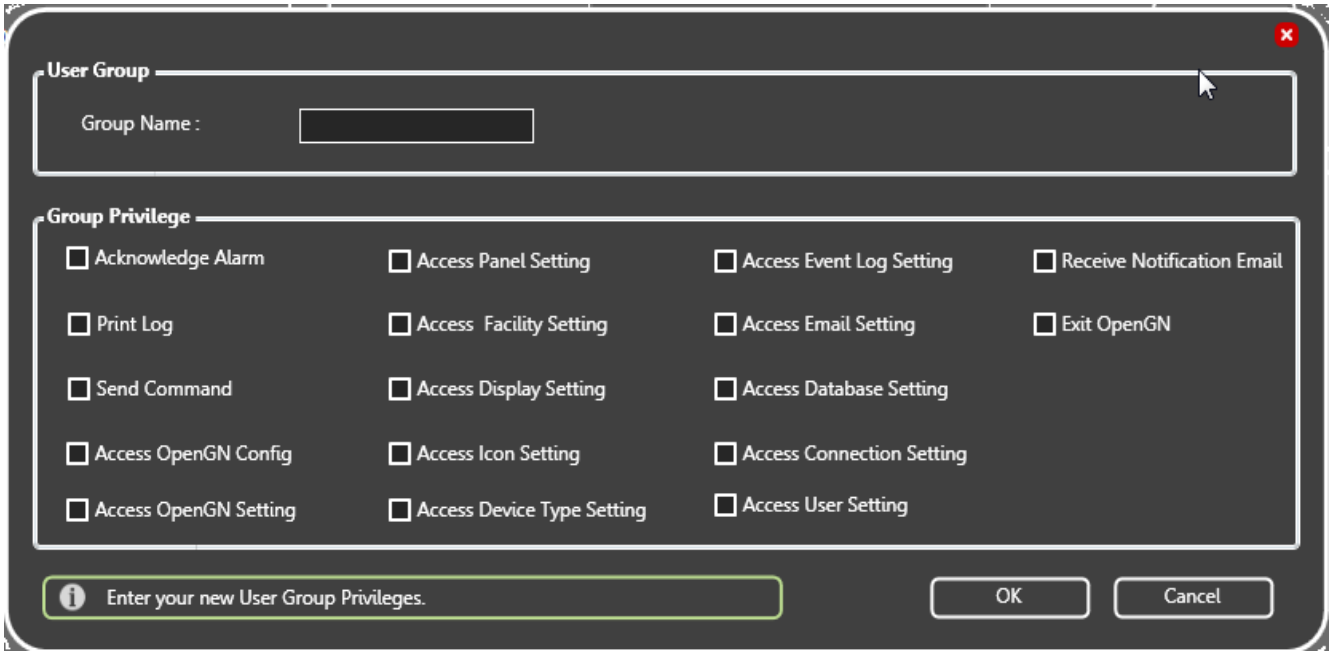


Figure 36 User Group window

2. Enter the Group Name.
3. Click the appropriate checkbox for the desired Group Privileges.

Acknowledge Alarm	Allows the members of the User Group to acknowledge alarms.
Print Log	Allows the members of the User Group to use the Print Log functions.
Send Command	Allows the members of the User Group to use the Send command.
Access OpenGN Config	Allows the members of the User Group to access the Config section.
Access OpenGN Setting	Allows the members of the User Group to use the Configuration Settings section.
Access Panel Setting	Allows the members of the User Group to access **Configuration Settings > Panel Settings**.
Access Facility Setting	Allows the members of the User Group to access **Configuration Settings > Facility Settings**.
Access Display Setting	Allows the members of the User Group to access **Configuration Settings > Display Settings**.
Access Icon Setting	Allows the members of the User Group to access **Configuration Settings > Icon Settings**.

Access Device Type Setting	Allows the members of the User Group to access **Configuration Settings > Device Type Settings**.
Access Event Log Setting	Allows the members of the User Group to access **Configuration Settings > Event Log Settings**.
Access Email Setting	Allows the members of the User Group to access **Configuration Settings > Email Settings**.
Access Database Setting	Allows the members of the User Group to access **Configuration Settings > Database Settings**.
Access Connection Setting	Allows the members of the User Group to access **Configuration Settings > Connection Settings**.
Access User Setting	Allows the members of the User Group to access **Configuration Settings > User Settings**.
Receive Notification Email	Allows the members of the User Group to receive Notification Emails.
Exit OpenGN	Allows the members of the User Group to exit OpenGN.

4. Click **OK** to create the User Group.

To modify an existing User Group

1. In the User Group section select the desired User Group and click **Modify**. The User Group window appears showing the current Group Privileges.
2. Check or uncheck the desired Privileges and click **OK**.

4.10.2 Managing Users

It is possible to create **New**, and to **Modify** or **Delete** existing Users.

To create a new User

1. In the User Group section click **New**. The User Details window appears.

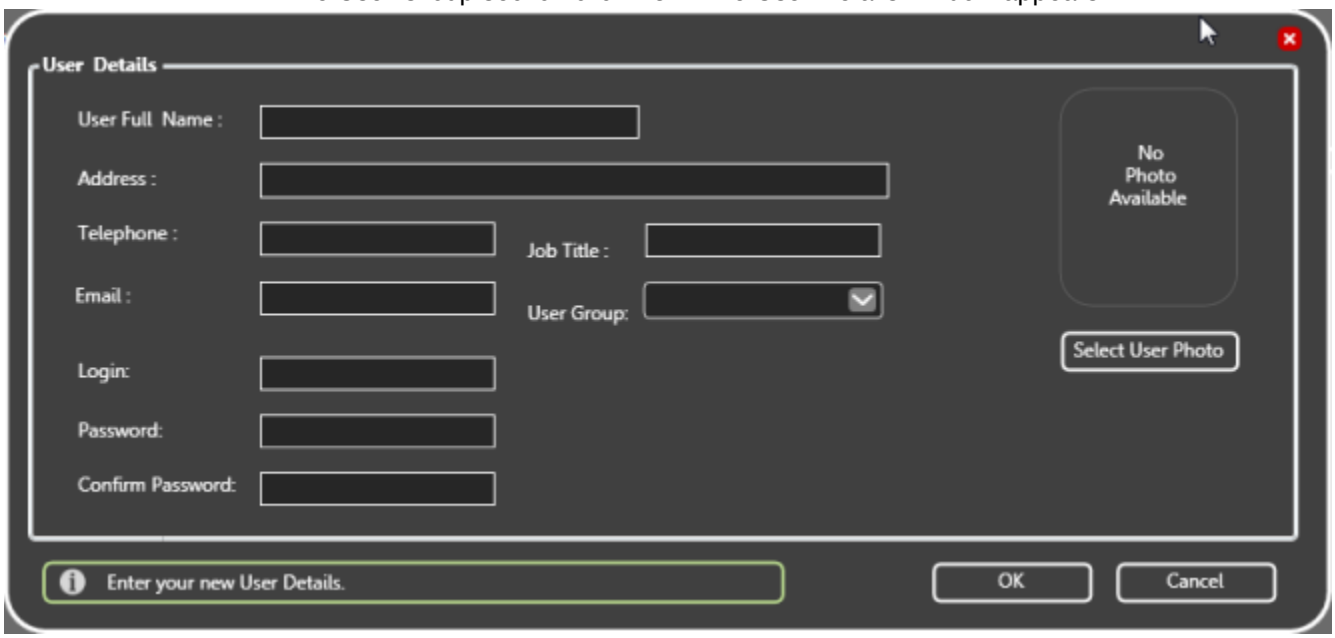


Figure 37 User Details

2. Complete the following fields:

- User Full Name (mandatory)
- Address
- Telephone
- Email
- Job Title
- User Group (mandatory)
- Login (mandatory)
- Password (mandatory)
- Confirm Password (mandatory)
- User Photo

3. Click **OK** to create the new User.

To modify an existing User

1. In the Users section select the desired User and click **Modify**. The User Details window appears showing the current User information.
2. Edit the desired information and click **OK**.

5.0 Configuring Devices and Zones

Adding devices to maps and floor plans enables you to observe real-time events in the Surveillance Area. With OpenGN, you can label and define devices, zones and add emergency instructions.

This chapter provides information about placing and configuring devices and zones on a floor plan.

This chapter explains how to

- Manage Devices
- Manage Zones

5.1 Configuring Devices and Zones

You can define individual or groups of devices, their subsequent floor plan placements and zone configurations. Configuring devices and zones is done in the Configuration window. For a general overview see section 3.5 Configuration Window.

When configuring devices, there are two working areas that provide different actions; the Job Tree and the Surveillance area.

5.2 Configuring Devices within the Job Tree

Right clicking on a device, loop or CPU in the Job Tree displays the following selections:

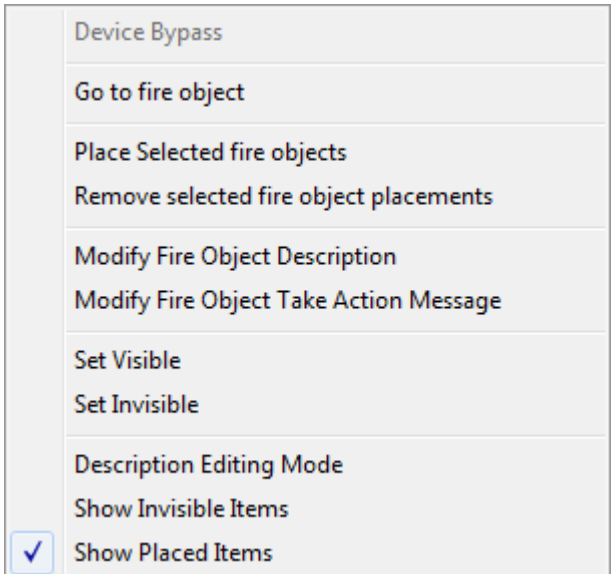


Figure 38 Fire Object Options

Device Bypass — Bypasses the device. Bypassed devices are animated by concentric purple rings.

Go to Fire Object — Selecting this option lets you find a placed or unplaced device. A device can also be located by double clicking it.

Place selected Fire Objects — Adding devices to a map provides you with an accurate visual representation of the surveillance area and allows you to effectively monitor the location. All devices are listed in the Job Tree of the Configuration window. When a device is placed on the map, its color changes from red to green. Once connected all devices are enabled to show alarm events whether they are on the floor plan or not.

Remove selected Fire Object placements — Use this option to remove any device, loop, CPU or Node.

Modify Fire Object Description — Every device has a description associated with it to inform the user of any relevant information about the device.

Modify Fire Object Take Action Message — Every device has a ‘Take Action’ associated with it. Use this option to modify the message.

Set Visible — By default all devices are visible. Select this option to make any invisible devices visible again.

Set Invisible — In some circumstances it may be convenient to set specific devices as invisible on the floor plan, Job Tree or both. Making a device invisible changes its color in the Job Tree to grey.

Description Editing Mode — For setup purposes you can easily rename multiple devices, loops or CPUs by selecting Description Editing Mode. Once enabled you can directly edit Job Tree elements by clicking on them without having to select Modify Fire Object Description.

Show Invisible Items — Displays an invisible device on the floor plan on the Job Tree as being invisible. Making a device invisible changes its color in the Job Tree to grey.

Show Placed Items — Shows or hides placed items in the job tree.

When the config.xml file is imported, all devices are ‘stored’ in a repository as ‘unplaced devices’. Placing a device on the map moves the device out of the repository and changes its color in the Job tree from red to green.

You can create or modify device messages to describe the actions the operator needs to take when an event occurs.

Devices can be made invisible to enable the operator to see only relevant devices on the map and/or the Job tree. By default all devices are visible on the map and in the Job tree. Making a device invisible changes its color in the Job tree to grey.

5.2.1 Go to Fire Object

Selecting this option lets you find a placed or unplaced device. A device can also be located by double clicking it.

To find a device

1. Right click on **Go to Fire Object**. The device is shown with concentric circles on the floor plan.

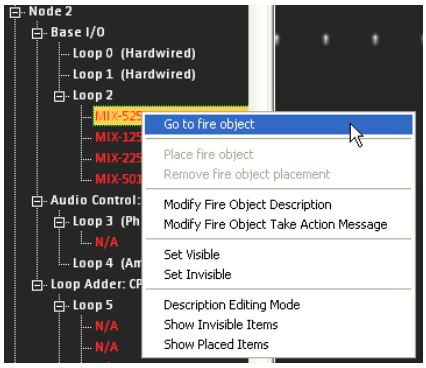


Figure 39 Go to Fire Object

2. Placing the mouse cursor over the device displays the device message.

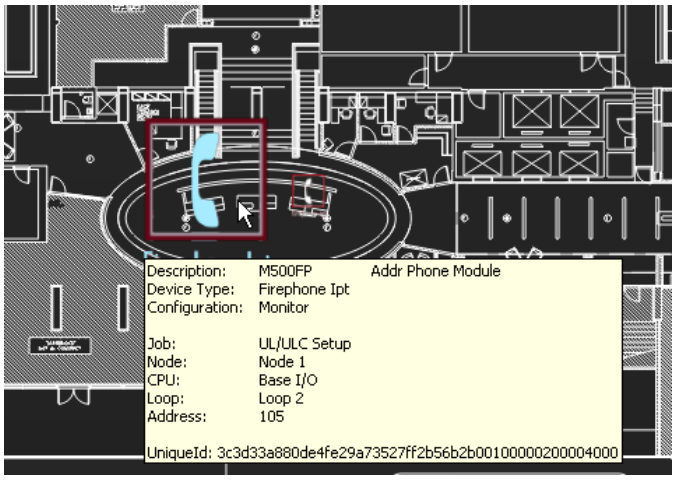


Figure 40 Device Info Message

5.2.2 Placing and Removing Devices

Devices are first placed at the top of the map and then moved into position onto the floor plan.

Adding devices to a map provides you with an accurate visual representation of the surveillance area and allows you to effectively monitor the location.

All devices are listed in the Job Tree of the Configuration window. When a device is placed on the map, its color changes from red to green.

Once connected to the FACP, all devices are enabled to show alarm events whether they are on the floor plan or not.

Note: It is the responsibility of the customer to ensure the accuracy of the building fire alarm device placement information.

To place devices

1. Select the building and floor plan where you want to add the devices.
2. Right click on a device, loop or CPU and select **Place Fire Object**. The device or devices appears on the top portion of the Map Area.
3. Select and drag each device to the specific location on the floor plan.
4. Place another device or click **Back** to save the information and return to the Main Display window.

To remove devices

1. Right click on a device, loop or CPU and select **Remove Fire Object**. The device or devices are removed from the floor plan.

5.2.3 Modify Fire Object Description

Every Fire Object has a description associated with it to inform the user of any relevant information about the device.

To define or change a device description

- From the Job Tree, right click on a device and select **Change Fire Object Description**. The Description will now be editable from the Job Tree

5.2.4 Description Editing Mode

For setup purposes you can easily rename multiple devices, loops or CPUs by selecting Description Editing Mode. Once enabled you can directly edit Job tree elements by clicking on them without first having to select Modify Fire Object Description.

.

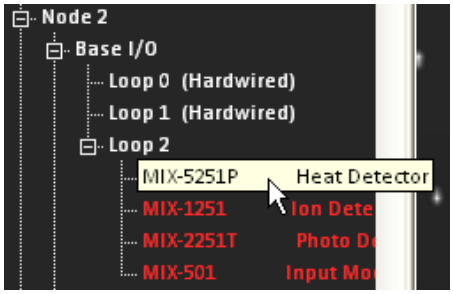


Figure 41 Description Editing Mode

5.2.5 Modify Fire Object Take Action Message

Every device has a 'Take Action Message' associated with it.

To define or change a device Take Action Message

1. Right click on a device and select **Change Fire Object Take Action Message**. The Modify Device Message window appears.

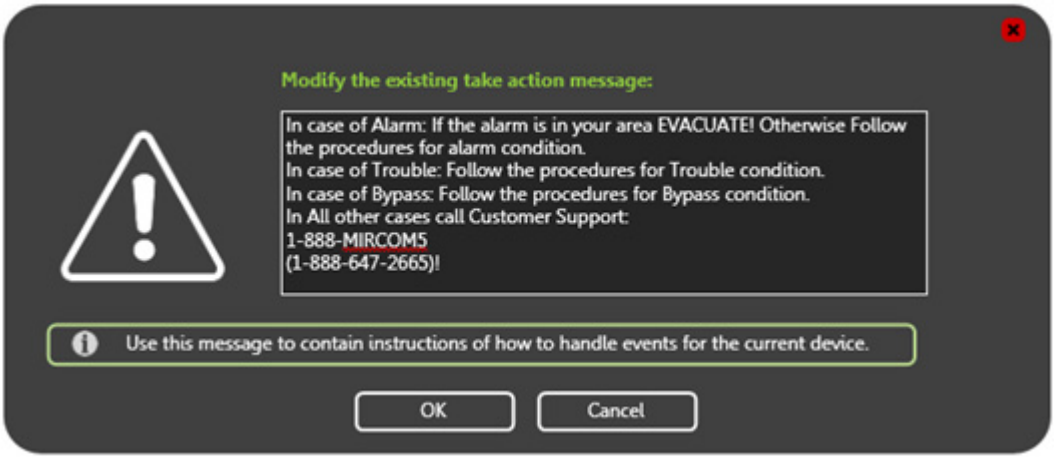


Figure 42 Take Action Message

2. Provide instructions on the action the operator needs to take when this device is active.
3. Click **OK** to save the information and return to the Configuration window, or click **Cancel** to exit without saving the changes.
4. Proceed with another configuration or click **Close** to save the settings and return to the Configuration window.

5.2.6 Set Visible or Invisible

By default all devices are visible on the map and/or the Job tree and in the unplaced repository. In some circumstances it may be convenient to set specific devices as invisible on the floor plan, Job tree or both.

Note: Alarm and event notification is not affected when a device is invisible.

Making a device invisible changes its color in the Job tree to grey.

To make a device invisible on the map and Job tree

- Right click on a device and select **Set Invisible**. The device on the map becomes invisible.

To make an invisible device not appear on the Job tree

- Right click on any device and uncheck **Show Invisible Items**. All devices on the floor plan designated as ‘invisible’ become hidden.

5.2.7 Show Invisible Items

Show Invisible Items displays an invisible device on the floor plan as being visible on the Job tree. Making a device invisible changes its color in the Job tree to grey.

To show an invisible device on the map

- Right click on a device and select **Show Invisible Items**. The invisible device(s) on the floor plan becomes visible in the Job tree.

5.2.8 Show Placed Items

Placing a device on the map moves the device out of the repository and changes its color in the Job tree from red to green.

To show placed items

- Right click on a device and check **Show Placed Items**. All placed devices in the Job tree are shown.

To hide placed items

- Right click on a device and uncheck **Show Placed Items**. All placed devices are hidden in the job tree.

5.3 Working with Devices in the Surveillance Area

Right clicking devices in the surveillance area provides a separate set of commands.

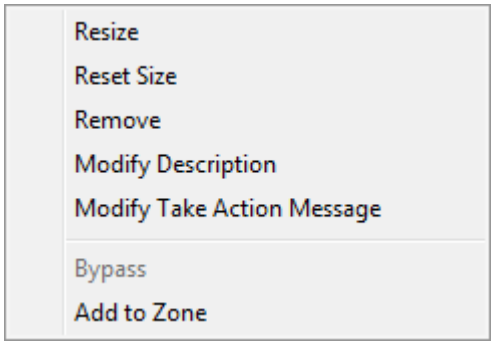


Figure 43 Commands for Devices in the Surveillance Area

Resize	Move the mouse to change the size of the device icon. Click the mouse to finish sizing the icon.
Reset Size	Resets the icon back to its default size.
Remove	Removes the icon from the floor plan. It will need to be placed. For instructions see 5.2.2 Placing and Removing Devices.
Modify Description	Modifies the Description. For instructions see 5.2.3 Modify Fire Object Description.
Modify Take Action Message	Modifies the Take Action message. For instructions see 5.2.5 Modify Fire Object Take Action Message.
Bypass	Bypasses the device. Bypassed devices are animated by concentric purple rings.
Add to Zone	Opens the Zone Properties window. For more information on working with zones see 5.4.1 Adding Devices to Zones.

5.3.1 Modify Description

Every device has a description associated with it to inform the user of any relevant information about the device.

To define or change a device description

1. Right click on a device and select **Change Fire Object Description**. The Modify Device Description window appears.

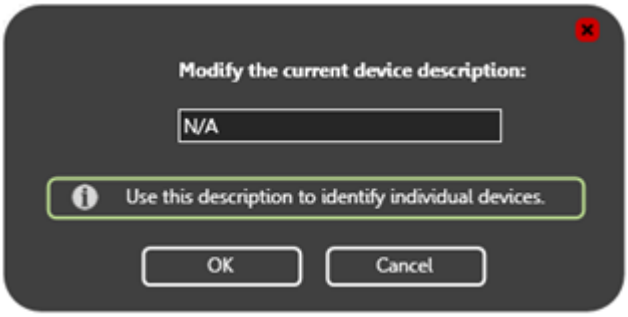


Figure 44 Modify Device Description

2. Provide a unique description for the device.
3. Click **OK** to save the information and return to the Configuration window, or click **Cancel** to exit without saving the changes.
4. Proceed with another configuration or click **Close** to save the settings and return to the Configuration window.

5.4 Configuring Zones

Zones are user defined groupings that can contain devices and shapes. The Zone and Shape Tree will list all configured Zones and the devices assigned to them, as well as all unassigned shapes.

5.4.1 Adding Devices to Zones

To add a Device to a Zone

1. In the Surveillance Area right click a placed device.
2. Select **Add to Zone** and the Zone Properties window appears.
3. Choose to add the device to either an Existing Zone or a New Zone by selecting the appropriate radio button.
4. If you choose an Existing Zone, click the drop down arrow in the Description field and select the desired Zone.
5. If you choose a New Zone, enter the name of the zone in the Description field.
6. Click **OK**. The device will now be listed under the appropriate Zone in the Zone and Shape tree.

5.4.2 Using the Rectangle Tools to Draw Shapes

To aid users in identifying zones, distinct visual representations of fire zones can be drawn using two types of rectangles and superimposed onto floorplans. Multiple rectangles can be configured to the same zone. If an event occurs on any device within a given zone, the entire zone will illuminate with the appropriate event color in the surveillance area.

To draw a shape using the rectangle tools

1. Identify the look of the rectangle by using the Color and Brightness tools.
2. Click the **Empty** or **Filled Rectangle** tool.
3. To begin drawing the rectangle click on the Surveillance Area. Click again to finish drawing the rectangle. It is possible to resize, move and change the color of the rectangles after drawing.

To resize a rectangle

1. Click the **Selection** tool.
2. Hover the mouse over the edge of the rectangle that you wish to resize.
3. Click and drag the mouse in the direction you wish to resize the rectangle.

To move a rectangle

1. Click the **Selection** tool.
2. Hover the mouse over the middle of the rectangle that you wish to move.
3. Click and drag the mouse in the direction you wish to move the rectangle.

5.4.3 Assigning Shapes to Zones

Once drawn, the shape will be named with a default description and listed as unassigned to a zone. By hovering the cursor over the shape, the description is shown in the top left corner.

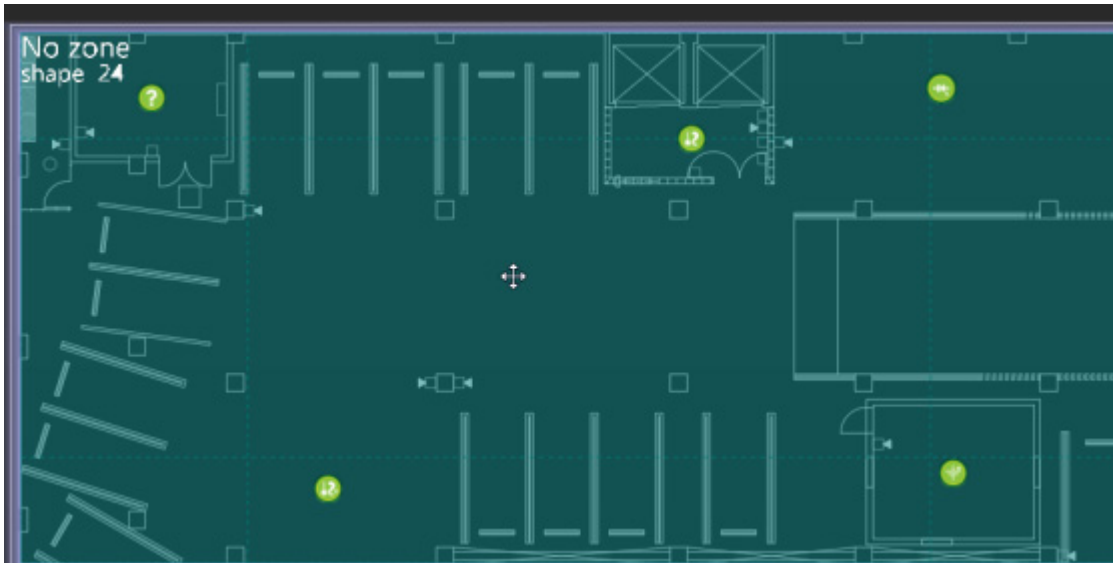


Figure 45 A newly drawn, unassigned Shape

Right clicking on shapes in the surveillance area provides the following set of commands:

Modify Description	Modifies the Description. For instructions see 5.3.1 Modify Description.
Assign to Zone	Opens the Zone Properties window. For more information on working with zones see 5.4 Configuring Zones.
Delete	Deletes the shape.

To assign a Shape to a Zone

1. In the Surveillance Area right click a shape.
2. Select **Assign to Zone** and the Zone Properties window appears.
3. Choose to add the shape to either an Existing Zone or a New Zone by selecting the appropriate radio button.
4. If you choose an Existing Zone, click the drop down arrow in the Description field and select the desired Zone.
5. If you choose a New Zone, enter the name of the zone in the Description field.
6. Click **OK**. The shape will now be listed under the appropriate Zone in the Zone and Shape tree.

5.5 Working with the Zone and Shape Tree

There are four types of items listed in the Zone and Shape Tree. Each type of item has a separate set of actions that can be performed. The item types are as follows:

- Zones
- Assigned Devices
- Assigned Shapes
- Unassigned Shapes

5.5.1 Zones

Right clicking on a Zone displays the following actions:

Modify Description	Modifies the Description. For instructions see 5.3.1 Modify Description.
Delete Zone	Deletes the Zone. Any shapes or devices will be disassociated with the zone.

5.5.2 Assigned Devices

Right clicking on an assigned device displays the following actions:

Go to Fire Object	The surveillance area zooms to the desired object.
Move to zone	Moves the device to a different zone.
Add to zone	Adds the device to another zone. The device will now have duplicate entries in the Zone Tree.
Remove from this zone	Removes the device from the zone.

5.5.3 Assigned Shapes

Right clicking on an assigned device displays the following actions:

Go to Shape	The surveillance area zooms to the desired shape.
Modify Description	Modifies the Description. For instructions see 5.3.1 Modify Description.
Assign to Zone	Opens the Zone Properties window. For more information on working with zones see 5.4 Configuring Zones.
Un-assign from this zone	Un-assigns the shape from the zone.
Delete	Deletes the shape.

5.5.4 Unassigned Shapes

Right clicking on an assigned device displays the following actions:

Go to Shape	The surveillance area zooms to the desired shape.
Modify Description	Modifies the Description. For instructions see 5.3.1 Modify Description.
Assign to Zone	Opens the Zone Properties window. For more information on working with zones see 5.4 Configuring Zones.
Delete	Deletes the shape.

6.0 Managing Events

This chapter provides information for the operator on how to monitor system events and alarms.

This chapter explains how to

- Monitoring Events and Alarms
- What to do when an Event Occurs
- Using the Control Functions

6.1 Monitoring Events and Alarms

OpenGN continuously receives data from every device on the map, and immediately responds to alarms and malfunctions. When OpenGN receives an alarm notice, it emits a tone and a displays an visual indication to show the alarm and trouble conditions.

OpenGN displays images of every device on the map area, with the correct location in buildings and on floors, and color coding according to their status and state. OpenGN also lets you quickly locate alarms on floor plans and review emergency instructions for each device.

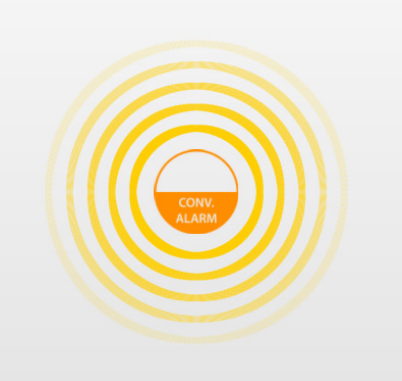


Figure 46 Device Alarm

6.1.1 Device States

A device state is its current status. Devices have four states:

Normal By default, devices in normal mode are not animated.

Trouble Devices reporting trouble are animated by concentric yellow rings.

Active Active Devices are animated by their default configuration display colors. If the an active device is configured as an:

- Alarm - animated by concentric red rings
- Supervisory - animated by concentric orange rings
- Trouble - animated by concentric yellow rings
- Monitor - animated by concentric blue rings

Bypass Bypassed devices are animated by concentric purple rings.

6.1.2 Device Functions

Devices can be configured for the following functions:

- Alarm Input
- Trouble Input
- Monitor Input
- Supervisory Input

Color coded messages indicate the status and configuration of each device.

6.1.3 Events Area

The Event List Area displays all events and alarms and their search criteria. The search criteria are listed by column according to the following categories:

- Acknowledged
- Event ID
- Event Timestamp
- Device Description
- Device Type
- Event Type
- Event Description
- Building
- Floor
- Job
- Node
- CPU
- Loop
- Device Address

6.2 What to do when an Event Occurs

When an event occurs OpenGN does the following:

- The Surveillance Area enters 2D view and zooms into the device causing the event.
- The device becomes animated with the appropriate colored concentric circles.
- The System Message area displays the appropriate message.
- The event is displayed on the Event List and is added to the Event Log.
- The **Settings** button from the Configuration window is disabled and generates a warning advising that there are unacknowledged events occurring.

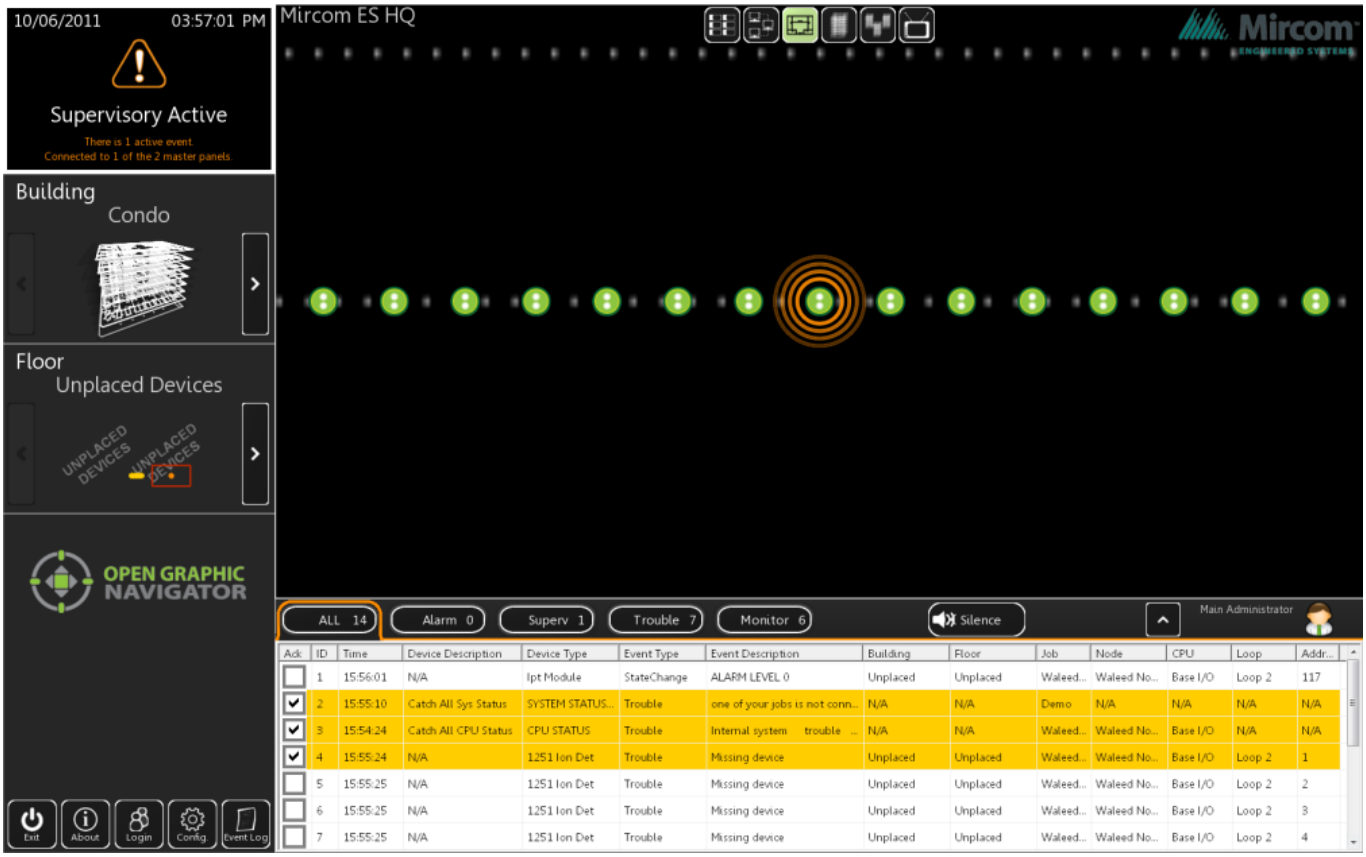


Figure 47 Active Event

When an event occurs the Operator can do the following:

- View the device info.
- Go to the device.
- Acknowledge the device.
- View the Take Action message.

To View the Device Info

1. The Device info is displayed in the Event List. Additionally, by hovering the cursor over the device, the device info is displayed.

To Go to the Device

1. In the Event List right click on the desired device.
2. Select **Go to** and OpenGN zooms on the device.

To Acknowledge the Device

1. In the Event List in the Ack column click on the corresponding box.

To view the Take Action Message

There are two methods to viewing the Take Action Message.

1. Double click the desired device and the Take Action Message appears.
2. In the Event List **right click** on the desired device. Select **Take Action Message**. The Take Action Message appears.

6.3 Using the Control Functions

The Switches View button in the Surveillance area (see 3.3.1 View Option Buttons on page 43) shows a grid where you can place annunciator switches. You can control the panel from here if the authority having jurisdiction allows it.

For example, you can place a Acknowledge switch in the Switches View, so that the operator can send an acknowledge command to the Fire Alarm Control Panel.

To set up control functions

1. Go to Configuration Settings, and navigate to **Control Switches** in the Floor Selection.
2. In the Job Tree, expand the **System Switches** section.
3. Drag a system switch from the Job Tree to the Control Switches grid.

   The switches that you can use are:

   - Acknowledge
   - Auxiliary Disconnect
   - Buzzer Silence
   - Fire Drill
   - GA (Total Evacuation)
   - Signal Silence
   - System Reset

To use control functions

1. In the Surveillance Area, click the Switches View button.
2. Double-click a switch to send that command to the panel.

Appendix A - System Messages

System messages provide information about the connection settings and panel status.

Connection and Panel Status Messages

Table 12 lists the Connection and Panel Status messages that appear in the Status Area and are listed by the order in which OpenGN checks them.

For complete descriptions of the Status Message see Table 13.

Table 12 Order of Status Checking and Status Message Type

Status Message	Status Message Type
Disconnected	Connection Status
No Jobs Imported	Connection Status
Alarm Active	Connection Status
Supervisory	Panel Status
Trouble	Panel Status
Monitor	Panel Status
Version Guid Mismatch	Connection Status
Unknown Panel Events	Connection Status
Unknown Heart Beat	Connection Status
System Normal	Connection Status

Status Message Descriptions

Table 13 contains images and complete descriptions of each possible Status Message. The status messages are listed in alphabetical order.

To see the order in which the Status' are checked see Table 12.

Table 13 Connection and Panel Status Messages

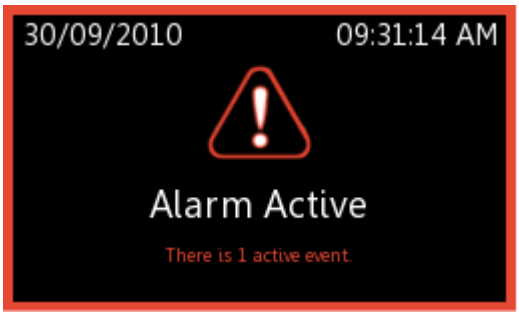
Status Message Image	Status Message Description
	**Alarm Active** The Alarm Active message appears when a fire alarm is initiated by high priority designated devices, such as, smoke detectors, ion detectors, heat detectors, sprinkler flow switches, manual stations and other devices configured to detect fire.

Table 13 Connection and Panel Status Messages (Continued)

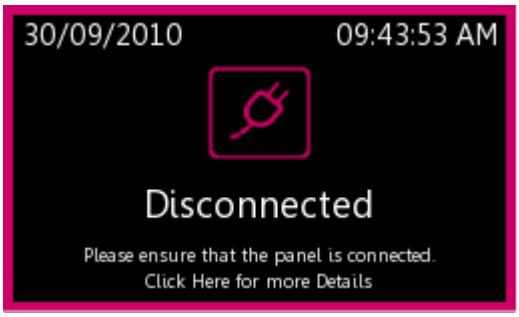
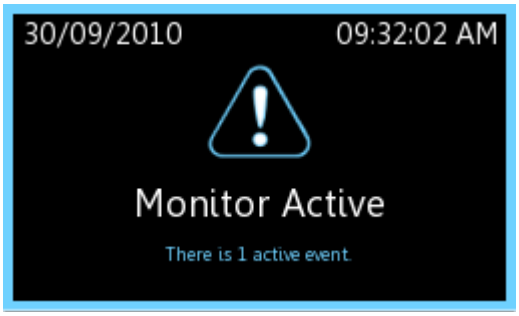
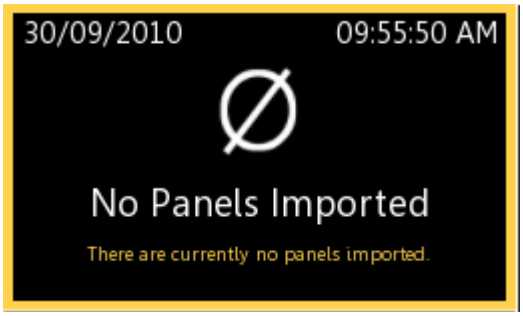
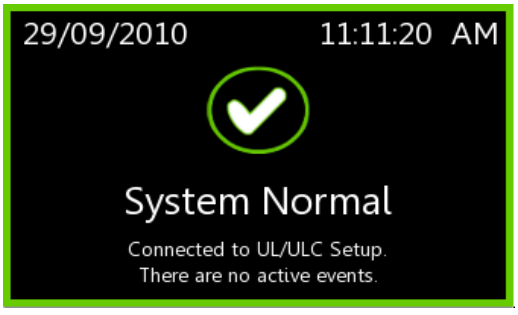
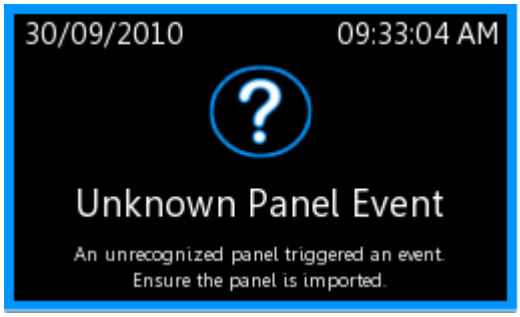
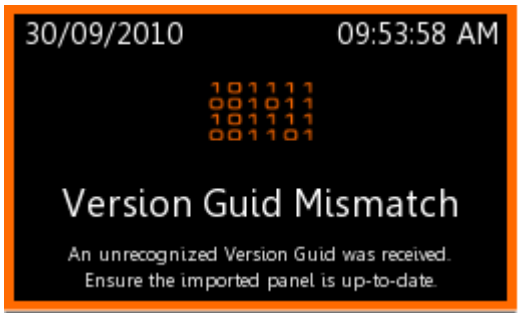
Status Message Image	Status Message Description
	**Disconnected** The Disconnected message indicates that the panel is disconnected from the system. This message appears when at least one Job is imported and the Config.xml file is not received from the XML Adapter
	**Monitor Active** The Monitor message is initiated from panels containing this function by lower priority designated devices such as telephones. The fire department or monitoring company is not notified.
	**No Panels Imported** This message appears when there is no imported Config.xml file.
	Supervisory Active The Supervisory message indicates that a component of the fire detection system is disabled due to a manual error, such as a closed fire sprinkler valve or active tamper switch. Devices designated as a lower priority can also trigger a Supervisory alarm.
	**System Normal** Once connection is established, both Panel and Version GUID are identified, Config.xml is imported and there are no alarms. System is normal.

Table 13 Connection and Panel Status Messages (Continued)

Status Message Image	Status Message Description
	Trouble Active The Trouble message indicates that a fault or defect exists on the panel, such as a panel electrical problem, malfunctioning or disabled smoke detector, a disabled or disconnected zone, backup battery low power, ground faults, or short or open circuits.
	Unknown Heart Beat The panel sends a packet of data containing the Panel and Version GUID to the XML adapter on a periodic basis, by default, once every 60 seconds. This packet of data is called the heartbeat. OpenGN compares the heartbeat to the information in the database. An Unknown Heart Beat message indicates that the GUID may not exist in the database. If OpenGN misses a heartbeat, an alert is generated indicating that either or both the Panel GUID or Version GUID are not identified by OpenGN.
	**Unknown Panel Event** This message appears when the panel GUID does not match the version in the database. This message only requires a physical connection in order to appear.
	**Version Guid Mismatch** This message appears when the version GUID does not match the version in the database. This message requires a physical connection, a successful Config.xml import and valid panel ID in order to appear.

Appendix B - Network Topologies

The following samples show some of the various network topologies for OpenGN.

Direct Connection

Figure 48 shows a direct connection between the OpenGN application and the fire panel.

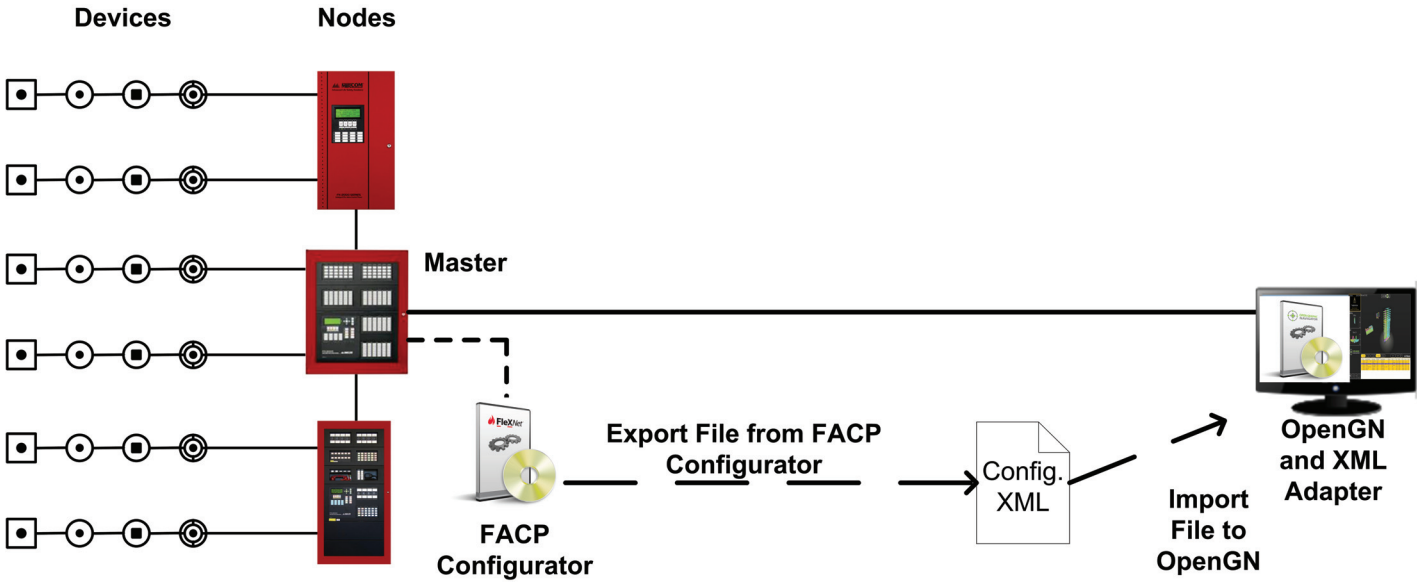


Figure 48 Direct Connection Network Diagram

LAN Connection 1

Figure 49 shows a LAN based network with the XML Adapter installed on the same workstation.

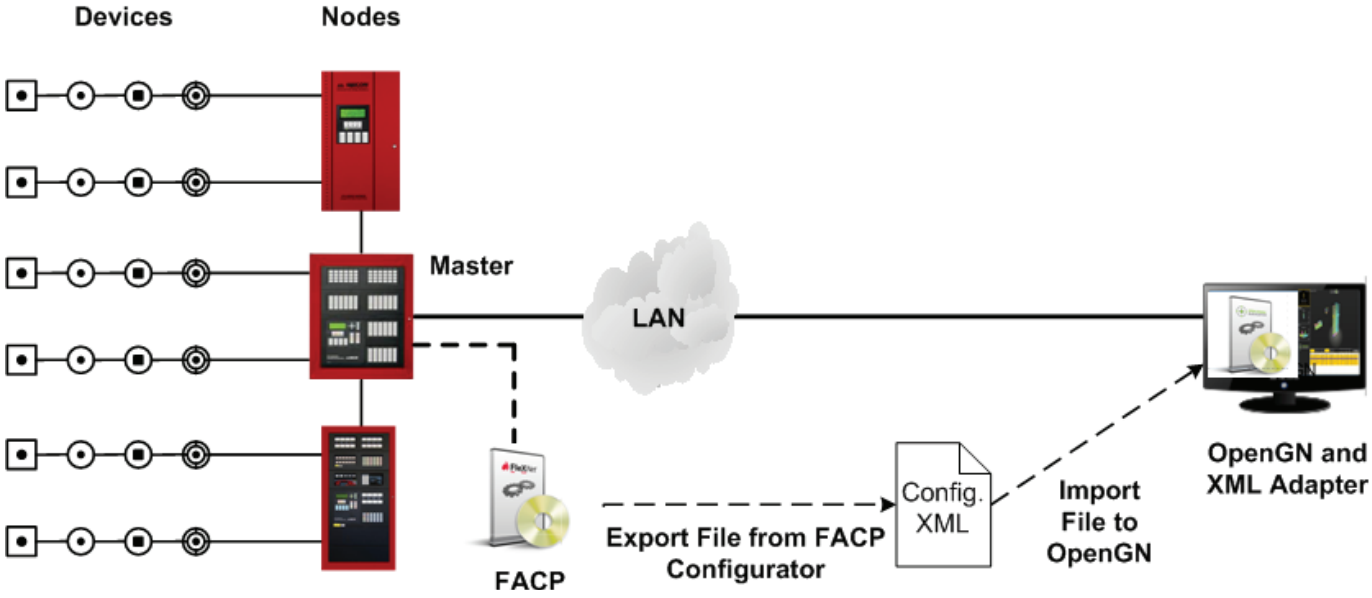


Figure 49 LAN Connection Network Diagram with XML Adapter on same workstation

WAN Connection using Web Service

Figure 50 shows a WAN based network.

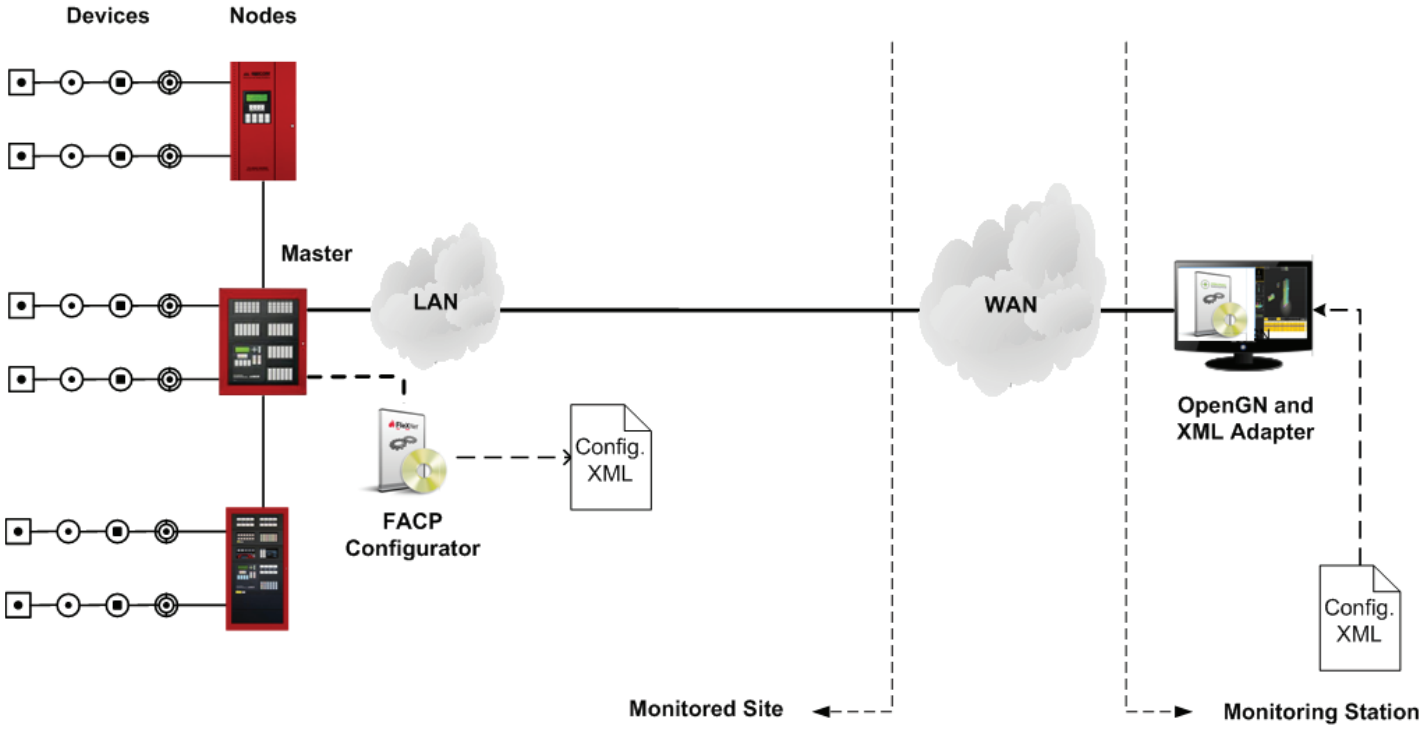


Figure 50 OpenGN WAN Connection using Web Service Network Diagram

Appendix C - Input Device and Assorted Status Types

Input Device Types

Table 14 lists the various types of input devices.

- Default
- Ion Input
- Photo Input
- Heat Input
- Input Module
- Laser Input
- Acclimate Input
- Fire Phone Input
- Addressable Output Signal
- Relay Driving Signal
- Relay
- Conventional Alarm Input
- Conventional Output Signal
- Conventional Relay Driving Signal
- Conventional Relay
- Conventional Phone
- Voice Line
- Amplifier
- Remote Switch
- Addressable Relay

Table 14 Input Device Types

Device Icons

The following figure shows the device icons bundled with OpenGN.

Figure 51 Device Icons

Job Status Types

Table 15 lists the various Job Status types.

- Alarm Ack
- Alarm Xmit Active
- Alert Active
- All Call
- All Call Minus
- Alm Buzzer
- Alm Buzzer Silence
- Amp Trouble
- Auto Day/Night
- Auto Ga Timing
- Auto SS Timing
- Aux Disc
- Aux Reset Pulse
- Common Alarm
- Common Monitor
- Common Supv
- Common Trouble
- Evac Active
- Fire Drill
- Ground Fault
- Latched Relays
- Off Hours
- Page by Phone
- Page to Alert
- Page to Evac
- Paging Active
- Pre-Tone Active
- Relay Auto Test Act
- Sig Sil Inhibit
- Sig Silence Pulse
- Signal Silence
- Signals Active
- Silenceable Opts Act
- Spv Buzzer
- Spv Buzzer Silence
- Subsequent Alarm
- Sys Reset
- Sys Reset Inactive
- Telephone Call in
- Telephone Call In Silenced
- Telephone Trouble
- Total Evacuation
- Trb Buzzer
- Trb Buzzer Silence
- Trouble Xmit Active

Table 15 Job Status Types

Node Status

Table 16 lists the various Node Status types.

- AC On
- Alm Relay Active
- Audible Walktest
- Microphone Trouble
- Node Active
- Node Alarm
- Node Alarm Verif
- Node Alert Active
- Node Amp Trouble
- Node Call Control
- Node Evac Active
- Node Ground Fault
- Node Maint. Alert
- Node Monitor
- Node Pre-alarm
- Node Relay Auto Test
- Node Signal Silence
- Node Signals Active
- Node Subsequent Alarm
- Node Supv
- Node Sys Reset Active
- Node Tel Call In
- Node Trbl Xmit Active
- Node Trouble
- Node Wflw Retard
- Page Ready
- Pre-Tone Active
- Silent Walktest
- Spv Relay Active
- Trb Relay Active

Table 16 Node Status Types

Connection Status Conditions

Table 17 shows the conditions that system messages are generated.

		Conditions			
		Config.xml Successfully imported	**Physical Connection established**	**Panel GUID Validated**	**Version GUID Validated**
Message	Disconnected	Yes	No	N/A	N/A
	No Panels Imported	No	No	N/A	N/A
	Version GUID Mismatch	Yes	Yes	Yes	No
	Unknown Panel Events	N/A	Yes	No	N/A
	Unknown Heart Beat	N/A	Yes	No	N/A
	System Normal	Yes	Yes	Yes	Yes

Table 17 Connection Status Conditions

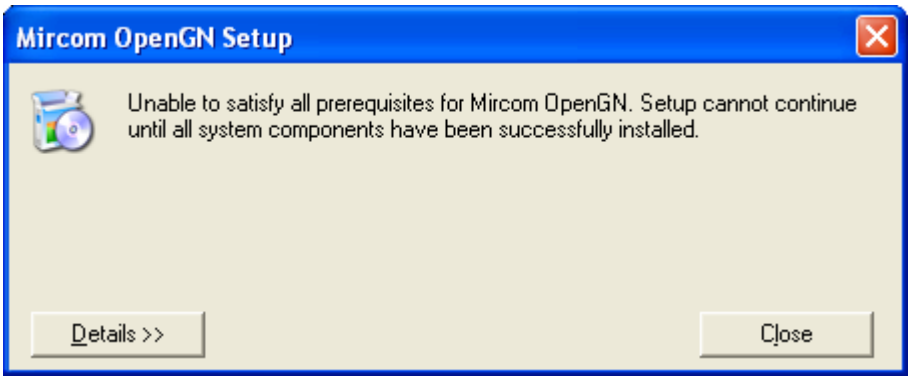
Appendix D - Troubleshooting FAQ

Frequently Asked Questions

Q: Why is the text displayed on the screen getting jumbled?

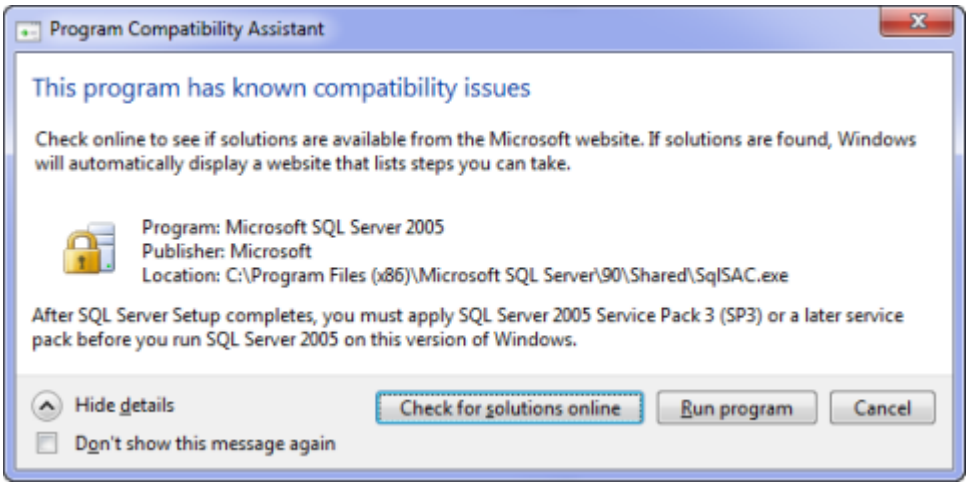
A: This is a known issue with some Intel graphics cards. Update your drivers to solve this issue.

Q: Why does my installation fail and I receive this message?



A: Click the **Details** button. If you see the message “Administrator permissions are required...” install the application using a user profile that has Administrator rights.

Q: When installing OpenGN why do I receive this or a similar message?



A: You are running Windows 7. Click **Run**

Q: Why is OpenGN telling me that I only have a Demo version when I have purchased a licensed version?

A: Ensure that your Codemeter USB stick has been programmed and is connected to the PC running OpenGN.

Appendix E - Converting .pdf to .svg

To convert .pdf files to .svg file format, Mircom recommends using either of the following applications:

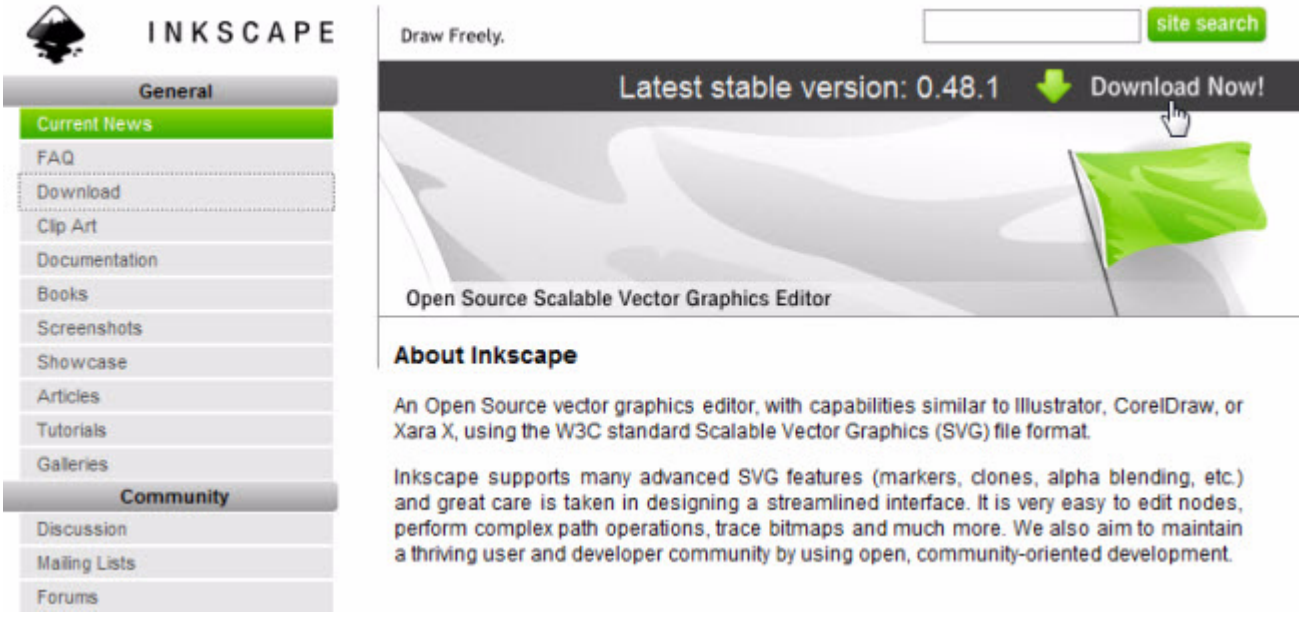
- Inkscape
- Adobe Illustrator

Using Inkscape

Inkscape is an Open Source vector graphics editor, with capabilities similar to Illustrator, CorelDraw, or Xara X, using the W3C standard Scalable Vector Graphics (SVG) file format.

To download and install the latest stable version of Inkscape

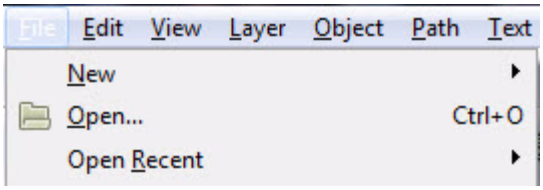
1. Open a web browser and go to www.inkscape.org.
2. Click on Download Now!



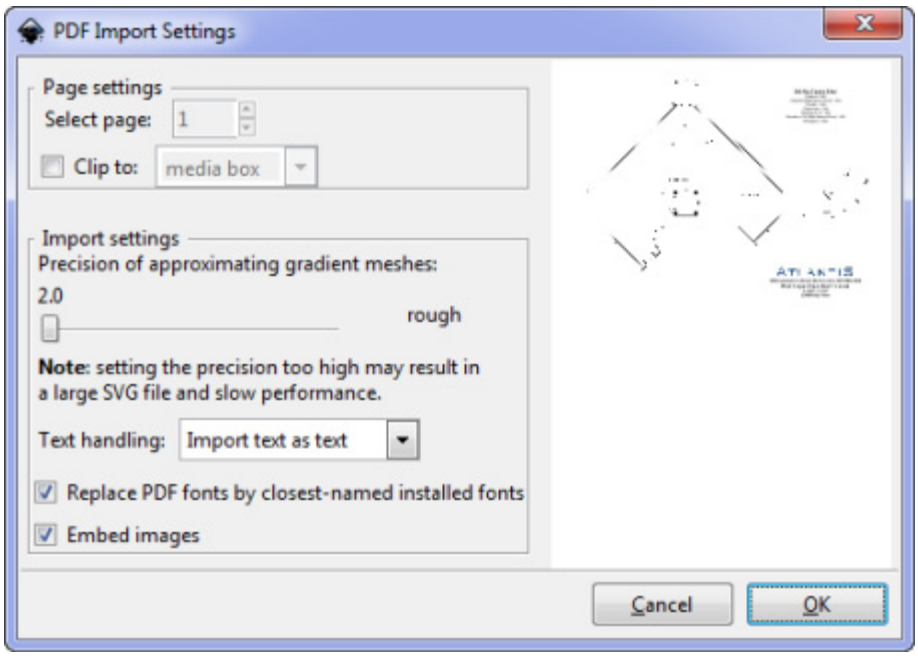
3. After the download, run and complete the install application.

To convert a .pdf file to .svg format using Inkscape

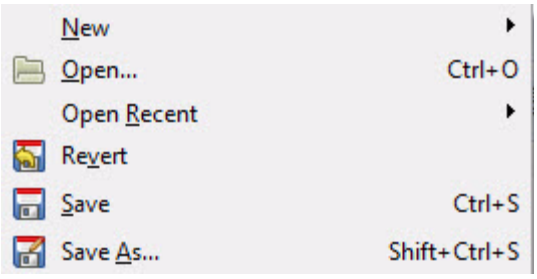
1. Run Inkscape.
2. Click **File > Open**.



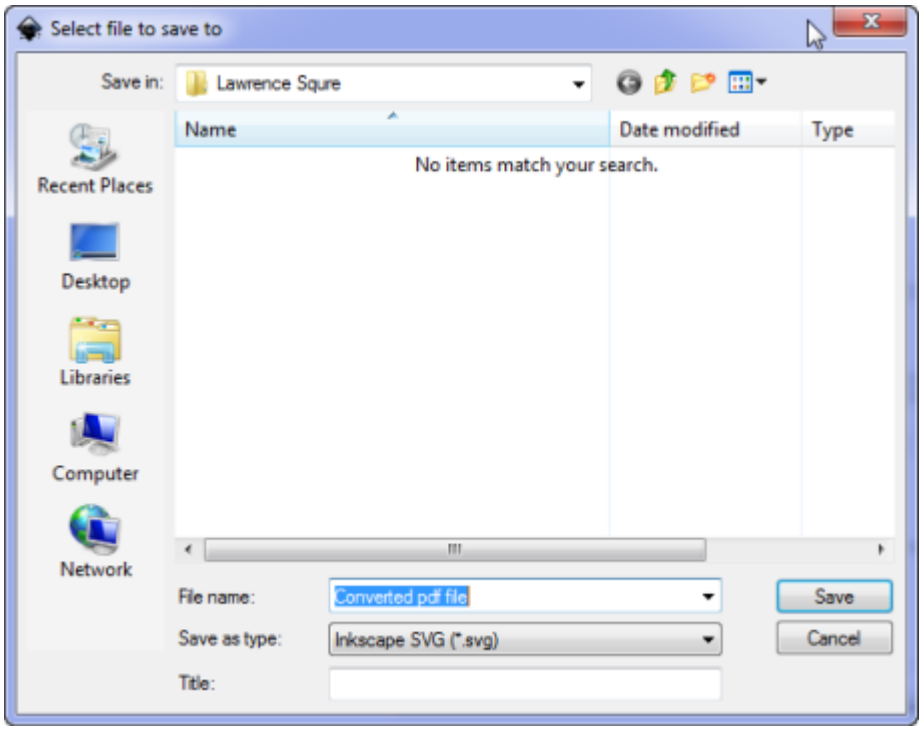
3. Browse to the desired file and click **Open**. The PDF Import windows appears.



4. If the .pdf has multiple pages, select the desired page from the Select page section. The page will be previewed on the right side of the window. Click **OK**. The file opens in Inkscape.
5. Click **File > Save As**. The Select file to save to window opens.



6. Enter the desired name of the file. Ensure that Save as type is either Inkscape SVG (*.svg) or Plain SVG (*.svg). Click **Save**. The file is now ready for import into OpenGN.

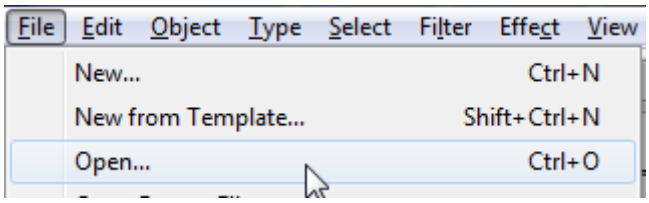


Using Adobe Illustrator

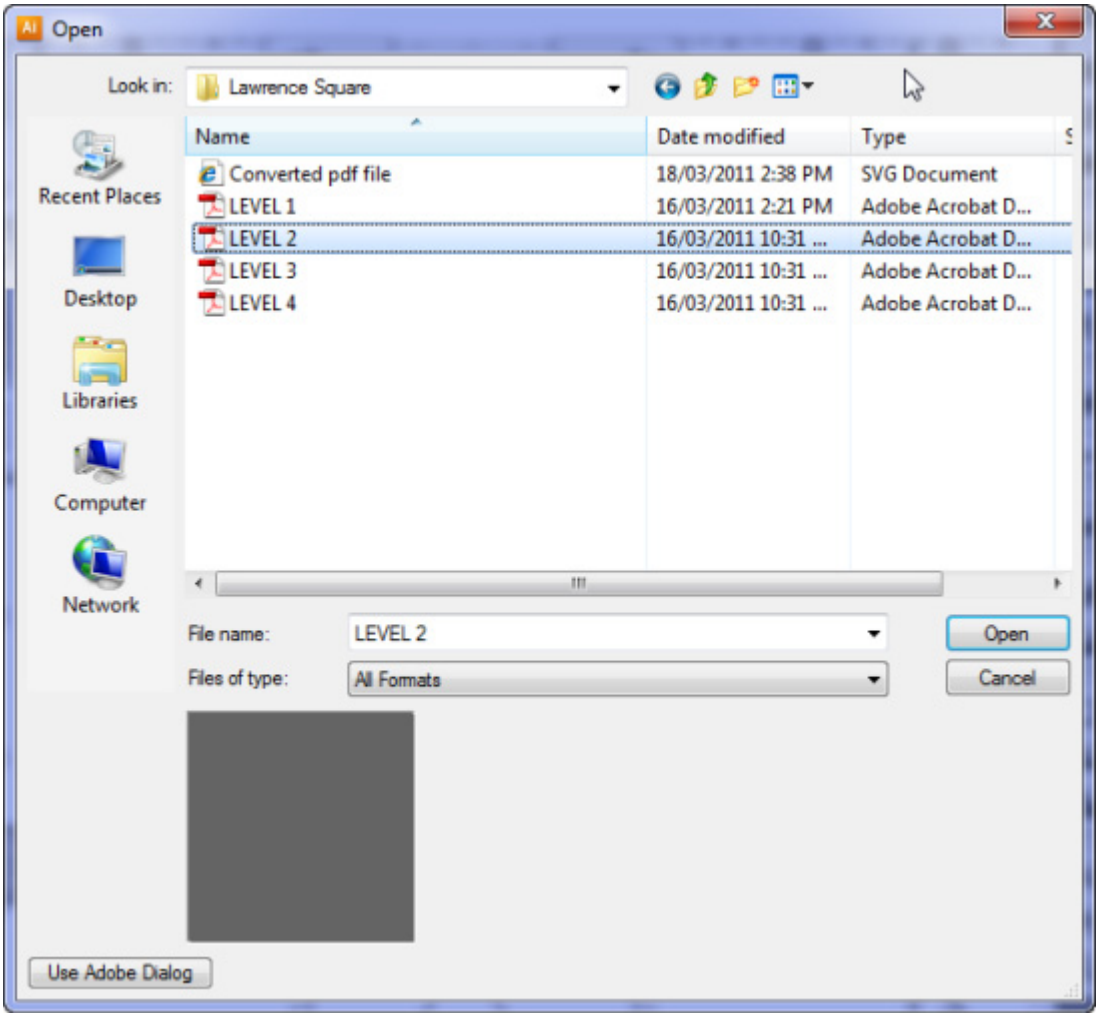
Adobe Illustrator is a vector graphics editor developed and marketed by Adobe Systems.

To convert a .pdf file to .svg format using Adobe Illustrator

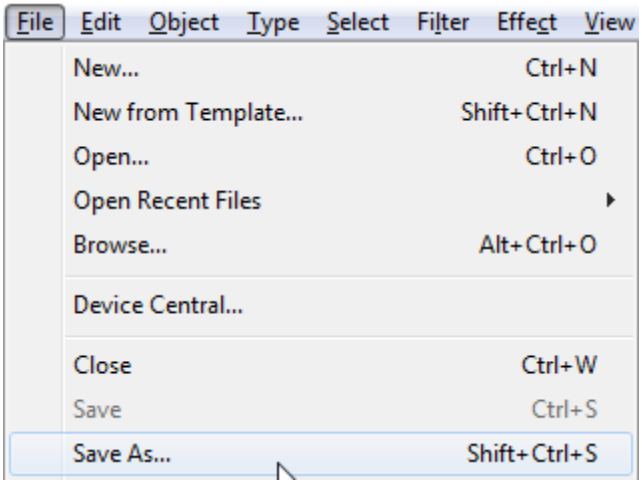
1. Open Adobe Illustrator.
2. Click **File > Open**.



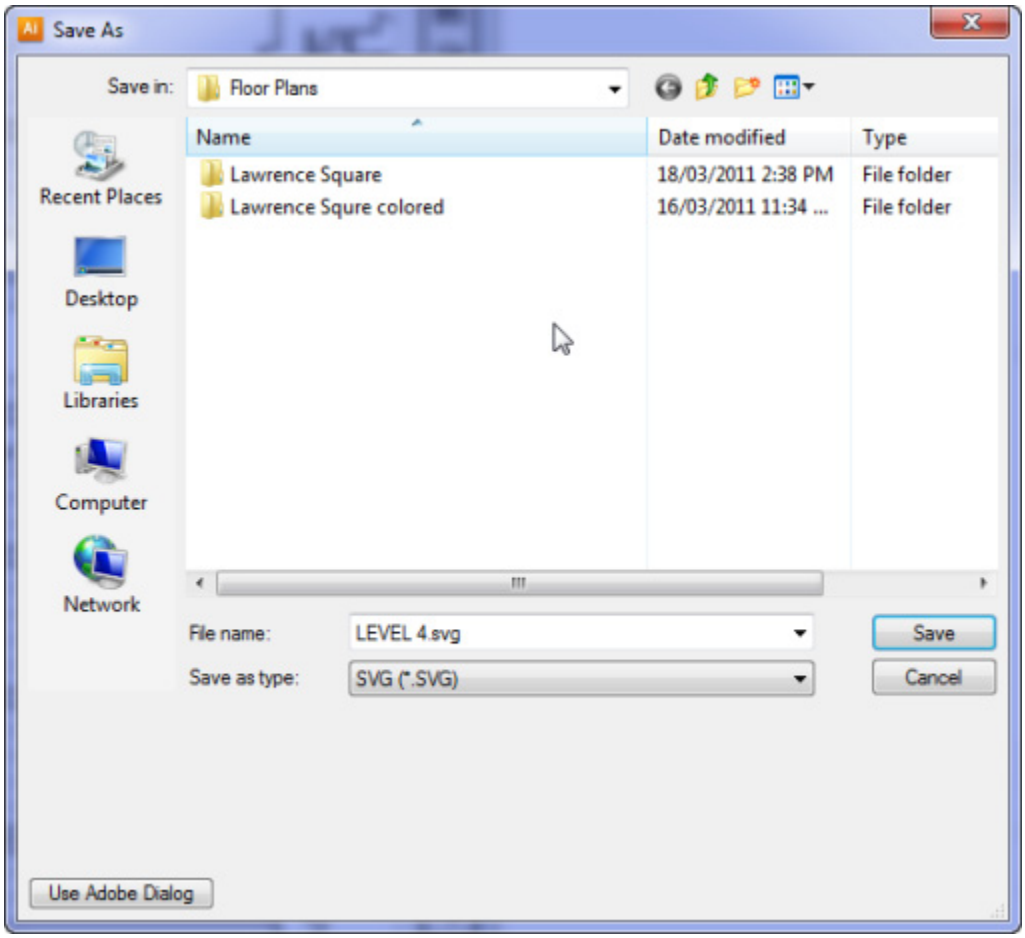
3. Browse to the desired file and click **Open**. The file opens in Adobe Illustrator.



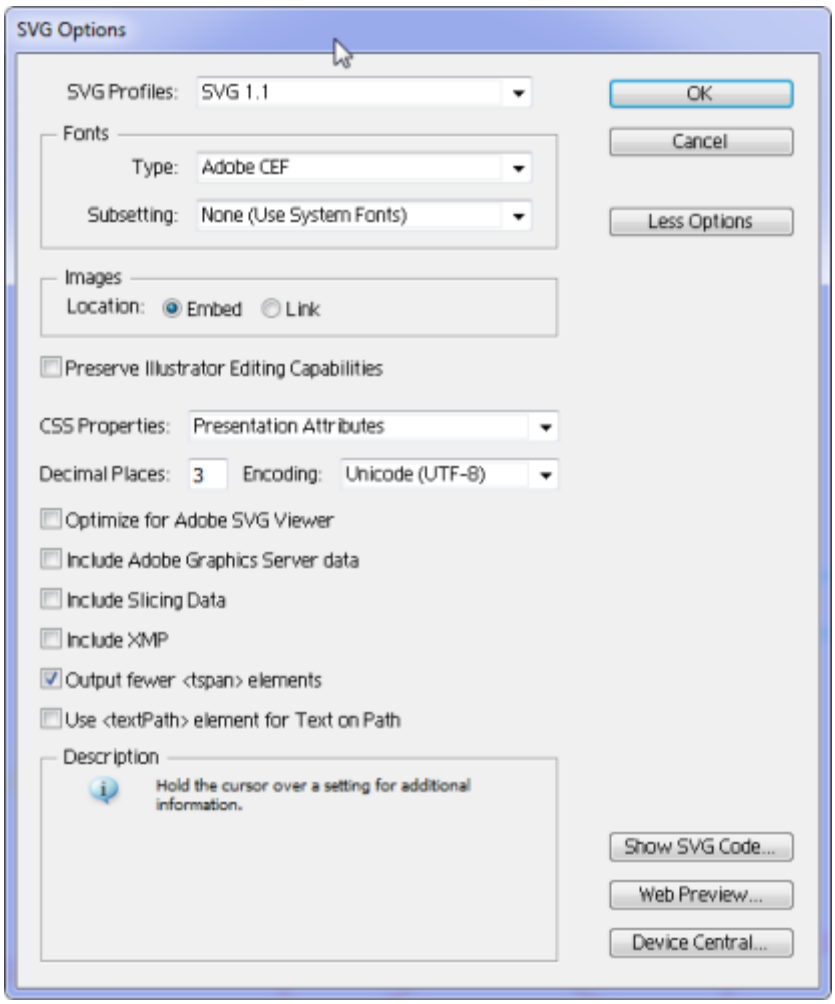
4. Click **File > Save As**.



5. Enter the file name and ensure that Save as Type is set to SVG (*.SVG). Click **Save**. The SVG Options window appears.



6. Click **OK**. The file is now ready for import into OpenGN.



Appendix F - Agency Listed Specifications

Requirements

To meet agency requirements the use of OpenGN must adhere to the following:

- Operated with an UL864 9th Edition/ULC-S527 Approved workstation. Testing has been done with a COMARK All-In-One QM57 Computer.
- If being used as a Remote Annunciator the COMARK QM57 must be installed in a Rittal KS1454.500 Industrial Control Panel Enclosure in the same room and directly connected via ethernet in conduit within 20ft to an FACP.
- For ULC, using OpenGN as Supervising station the COMARK QM57 must be installed in a Rittal KS1454.500 Industrial Control Panel Enclosure.
- Ethernet connection must be supervised in configuration software as shown in Figure 52.

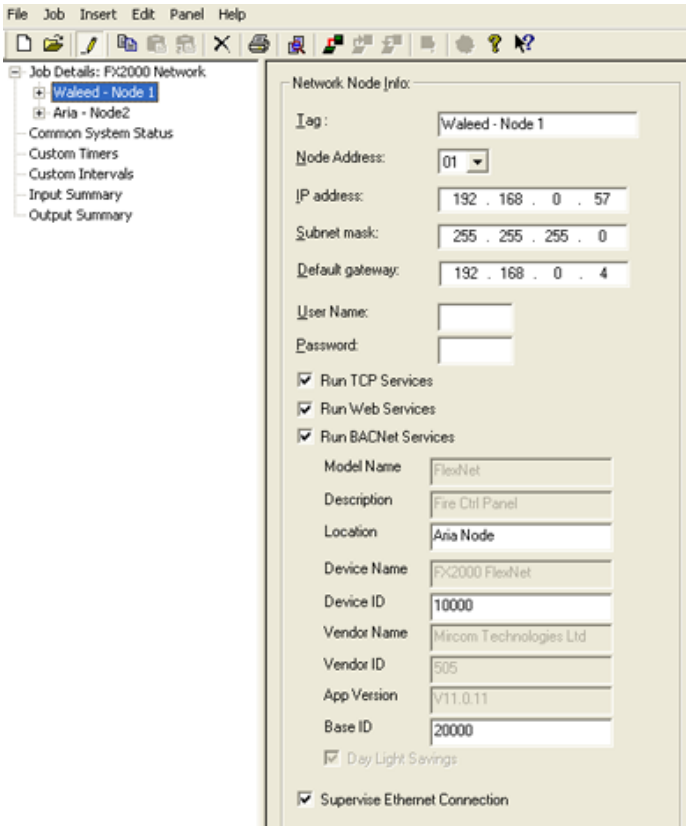


Figure 52 FleX-Net Configurator set to supervise ethernet connection

Notes: FACP System configuration cannot be changed via OpenGN.

Appendix G - Mounting Instructions

Mounting the COMARK All-In-One QM57 Computer into a Rittal KS1454.500 Industrial Control Panel Enclosure

To mount the COMARK All-In-One QM57 Computer

1. Mount the KS1454.500 enclosure as per manufacturers instruction.
2. Wire the electrical box as per local electrical code.
3. Place the COMARK QM57 computer in the KS1454.500 enclosure.
4. Using the #8 screw holes in the bottom plate of the COMARK QM57, carefully mark drill holes on the bottom of the KS1454.500 enclosure with a permanent marker.
5. Remove the COMARK QM57 computer from the KS1454.500 enclosure and drill the marked holes.
6. Place the COMARK QM57 computer into the KS1454.500 enclosure. From the bottom of the KS1454.500 enclosure screw three #8 screws into the drilled holes. Secure the screws using three #8 nuts.
7. Plug the power brick supplied with the COMARK QM57 computer into the electrical box.

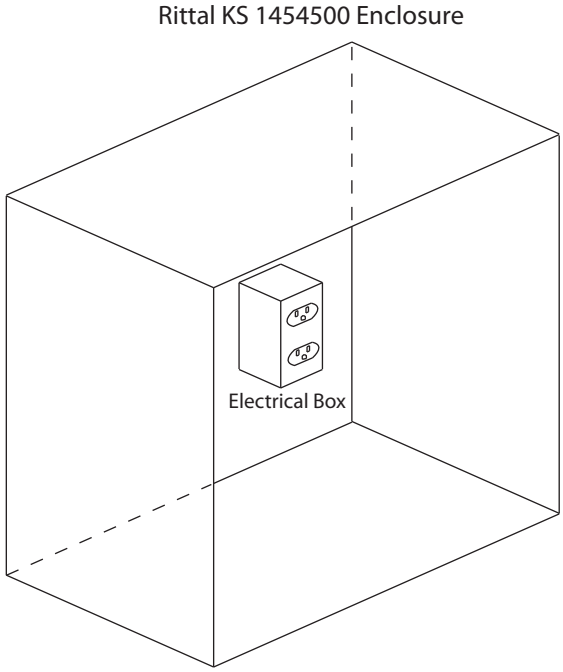


Figure 53 Rittal Enclosure (Door not Displayed)

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