OPEN GRAPHIC NAVIGATOR

Open Graphic Navigator

Annunciation Monitoring & Control Software

Connecting OpenGN Phase II to the Secutron MR-2200 with the NET232 Adapter

LT-6092 Rev. 0
May 2015

Table of Contents

1.0 Before you Begin 4

2.0 Connect the NET232 Adapter to the MR-2200 5

3.0 Configure the NET232 Adapter 7

3.1 Install the DeviceInstaller application 7
3.2 Configure the NET323 adapter 8

4.0 Configure OpenGN 12

4.1 Configure the job 12
4.2 Export the configuration file in .txt format 13
4.3 Convert the configuration file from .txt to .xml format 15
4.4 Import the .xml configuration file into OpenGN 16

5.0 Configure the XML Adapter 19

5.1 Configure the XML Adapter using a TCP/IP connection 19

6.0 Troubleshooting 22

6.1 The Destination in the XML Adapter is Red 22
6.2 Restoring the Default Settings 22

1.0 Before you Begin

This manual describes how to connect OpenGN Phase II to a Secutron MR-2200 using the NET232 adapter.

The OGN-NET232 KIT contains the following components:

- Gridconnect NET232 serial to Ethernet adapter
- Gridconnect CD
- Two RS-232 cables, one modified to connect to the MR-2200

You also need:

- The Modul-R Human Interface (MHI) application, version 22.0f or later
- The Secutron_ConfigXML application
- OpenGN CodeMeter license key

This manual consists of the following steps:

1. Connect the NET232 Adapter to the MR-2200.
2. Configure the NET232 Adapter.
3. Configure OpenGN.
4. Configure the XML Adapter.

Follow the instructions below to complete these steps.

2.0 Connect the NET232 Adapter to the MR-2200

This chapter explains how to connect 4 components:

- MR-2200
- NET232 adapter
- XML Adapter (which is installed as part of OpenGN)
- OpenGN (this can be on the same computer as the XML Adapter)

The NET232 adapter communicates between the MR-2200 and the XML Adapter.

1. Connect the NET232 serial to Ethernet adapter to the modified RS-232 cable. Use the additional RS-232 cable as an extension if required.

Note: The length of the serial cable, including extensions, must be no more than 20 feet.

2. Connect the three wires on the modified RS-232 cable to the RS-232-1 port on the MR-2200. See Figure 1.

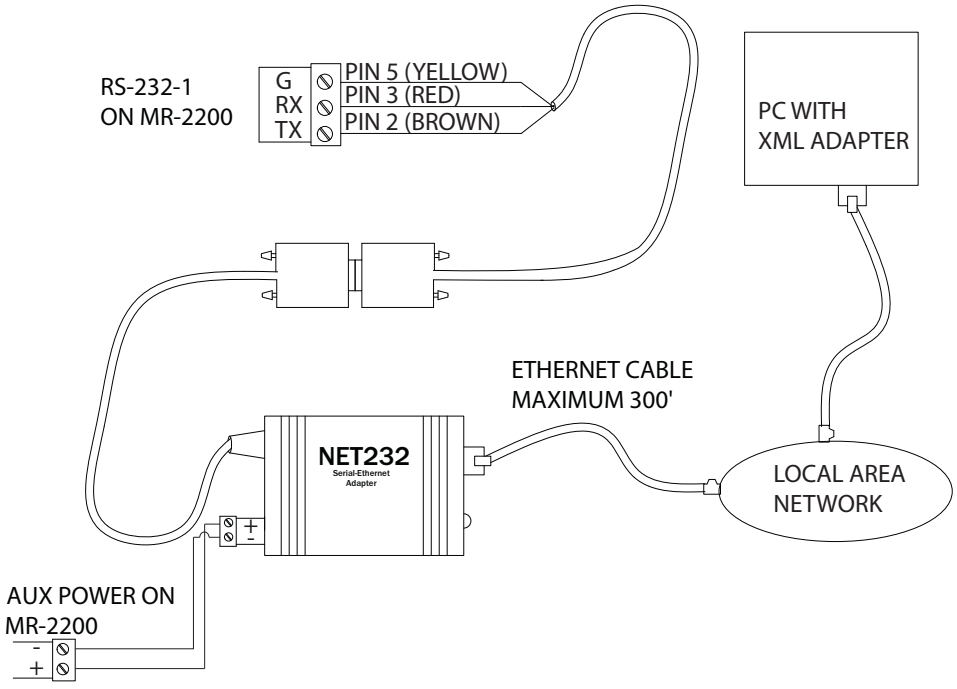


Figure 1 Connecting the NET232 adapter to the MR-2200

Note: If the colors of the wires do not match the colors in Figure 1, use a multimeter to check the pins.

3. Connect the power terminals on the NET232 adapter to the Aux Power terminals on the MR-2200.
4. Connect an Ethernet cable from the NET232 adapter to the same network that the XML Adapter computer is connected to.
5. Go to section 3.0 on page 7.

3.0 Configure the NET232 Adapter

3.1 Install the DeviceInstaller application

1. Insert the Gridconnect CD into the XML Adapter computer.
2. In the window that appears, click **Go to Software Page**.

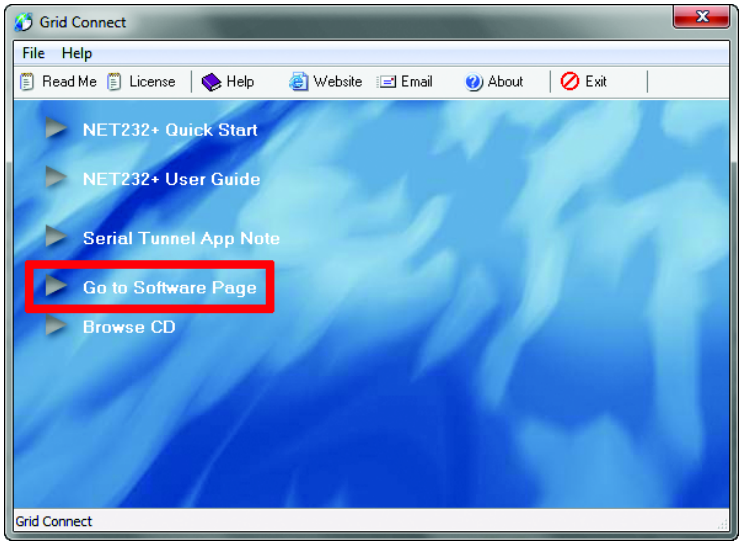


Figure 2 Go to Software Page

3. Click **Device Installer**. Follow the instructions to install the DeviceInstaller software.

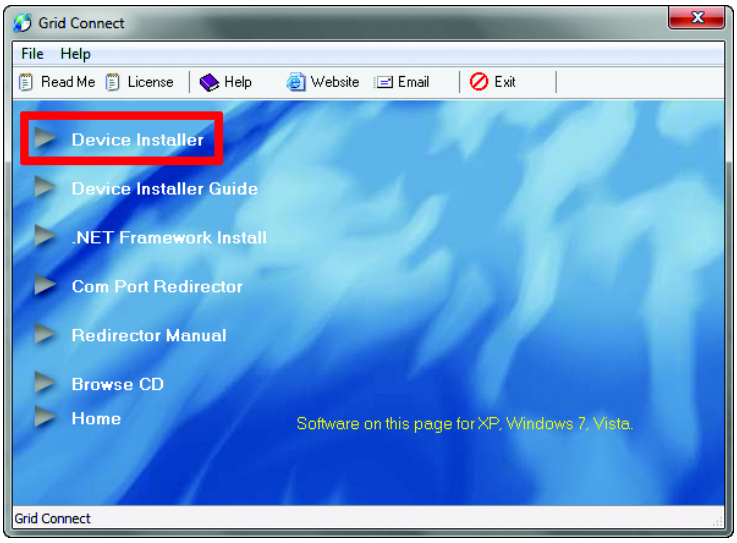


Figure 3 Device Installer

3.2 Configure the NET323 adapter

1. Make sure that the computer is connected to the NET323 adapter with an Ethernet cable.
2. Open the DeviceInstaller program.
3. Click the **Search** button.

   The DeviceInstaller program shows all the Gridconnect devices connected to the network. The NET323 adapter appears in the right pane.
4. Identify the correct adapter by the hardware address. The adapter's hardware address is printed on it.

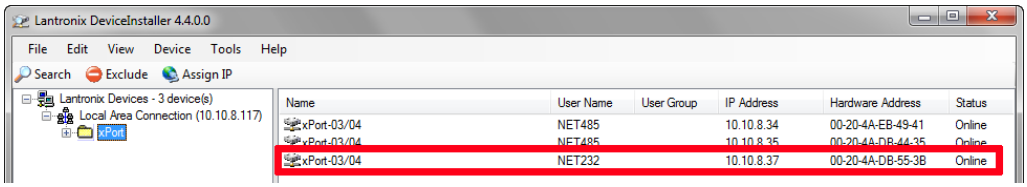


Figure 4 DeviceInstaller window showing the NET323 adapter

5. Double-click the NET323 adapter.
6. Click the **Web Configuration** tab.
7. Click the icon on the far right of the Web Configuration window.

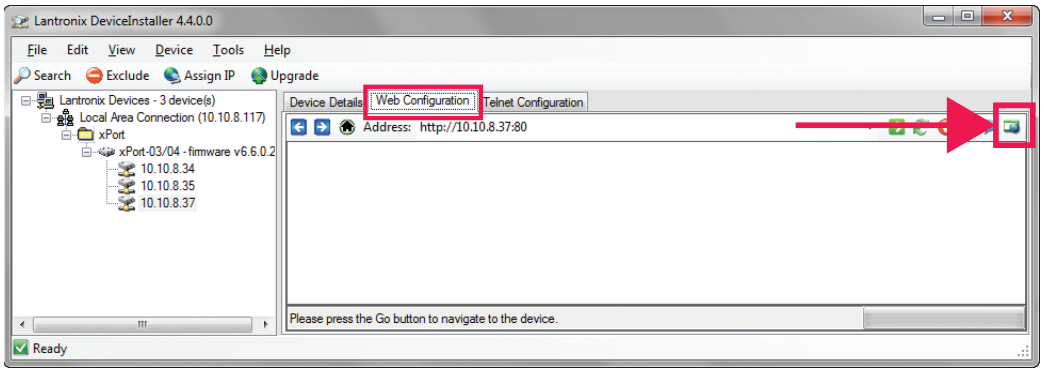


Figure 5 DeviceInstaller Web Configuration

A browser window opens showing the configuration of the NET323 adapter.

8. Click **OK** in the Username and Password window.
9. Click **Network** on the left.

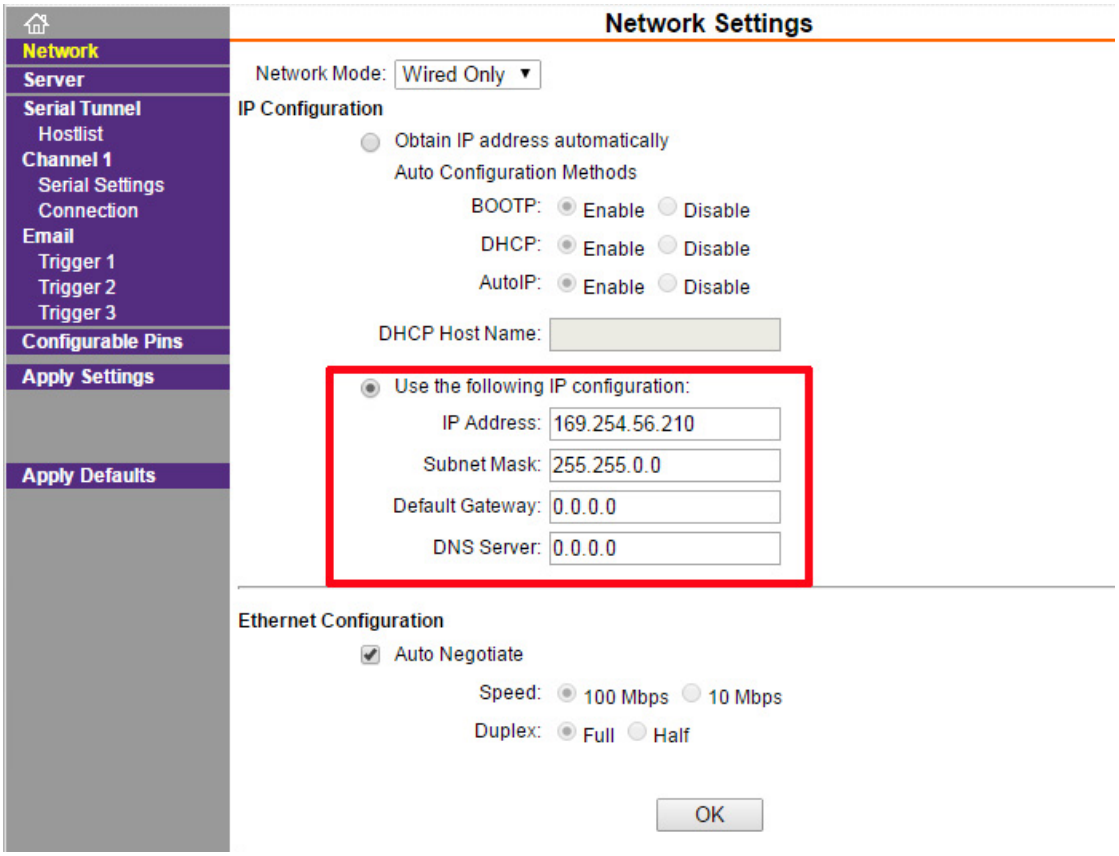
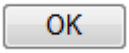


Figure 6 NET323 Adapter Network Settings

10. Select **Use the following IP configuration** and type the IP configuration settings for the NET323 adapter. Consult your network administrator for assistance.

Note: To ensure a constant connection to OpenGN, you must assign a static IP address to the NET323 adapter.

11. Click **OK** at the bottom of the window. 

12. Click **Apply Settings** on the left.

13. Wait for the settings to be applied.

14. Click **Serial Settings** on the left.

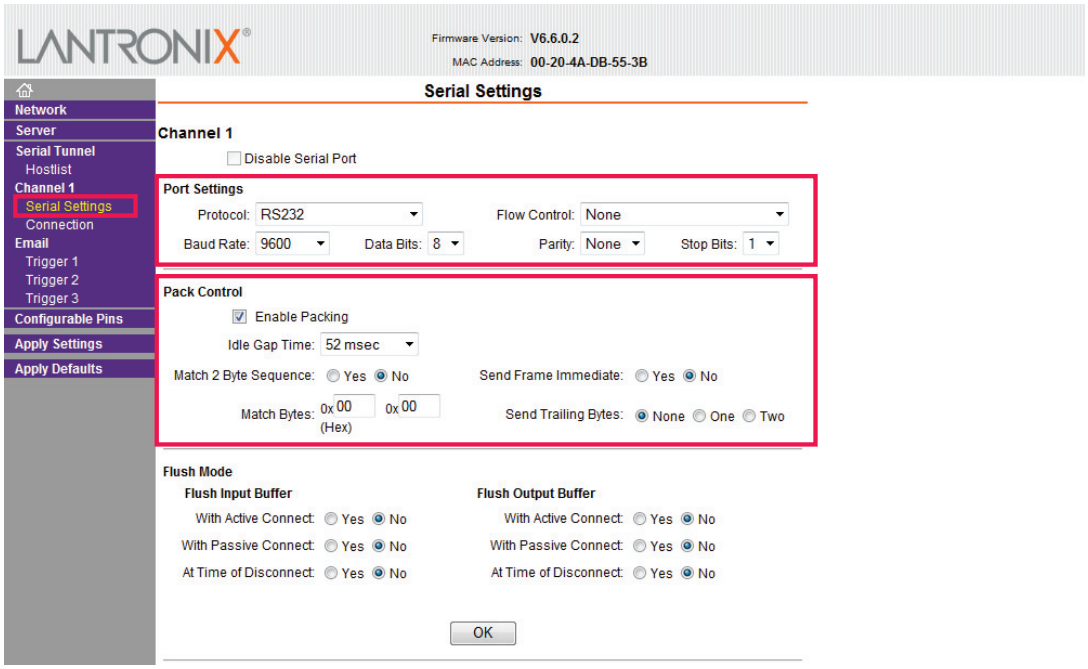
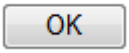


Figure 7 NET323 Adapter Serial Settings

15. Enter the following information:

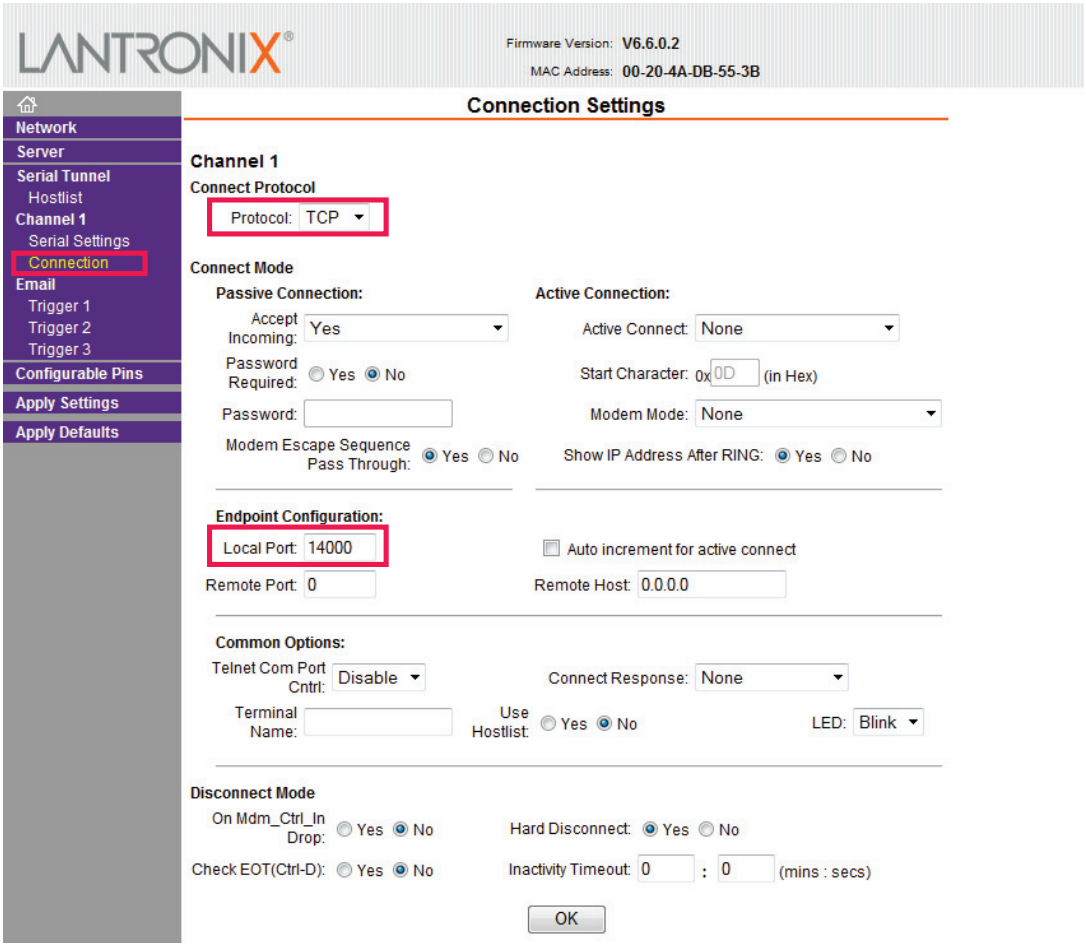
Protocol	RS-323
Baud Rate	9600
Enable Packing	Select this checkbox
Idle gap time	52 msec
Match 2 Byte Sequence	No
Send Frame Immediate	No
Send Trailing Bytes	None

16. Click **OK** at the bottom of the window. 

17. Click **Apply Settings** on the left.

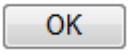
18. Wait for the settings to be applied.

19. Click **Connection** on the left.



20. Enter the following information:

Protocol	TCP
Local Port	14000

21. Click **OK** at the bottom of the window. 

22. Click **Apply Settings** on the left.

23. Wait for the settings to be applied.

4.0 Configure OpenGN

In order to configure OpenGN you must:

1. Configure the job.
2. Export the configuration file in .txt format using the MHI application.
3. Convert the configuration file from .txt to .xml format using the Secutron_ConfigXML application.
4. Import the configuration file into OpenGN.

Follow the instructions below to complete these steps.

4.1 Configure the job

You need:

- The Modul-R Human Interface (MHI) application, version 22.0f or later

1. Connect the MR-2200 to the computer that has the MHI configurator application installed on it.
2. In the MHI application, open the job for the MR-2200 panel.
3. Click **System** -> **Edit**.

   The Editing window appears.

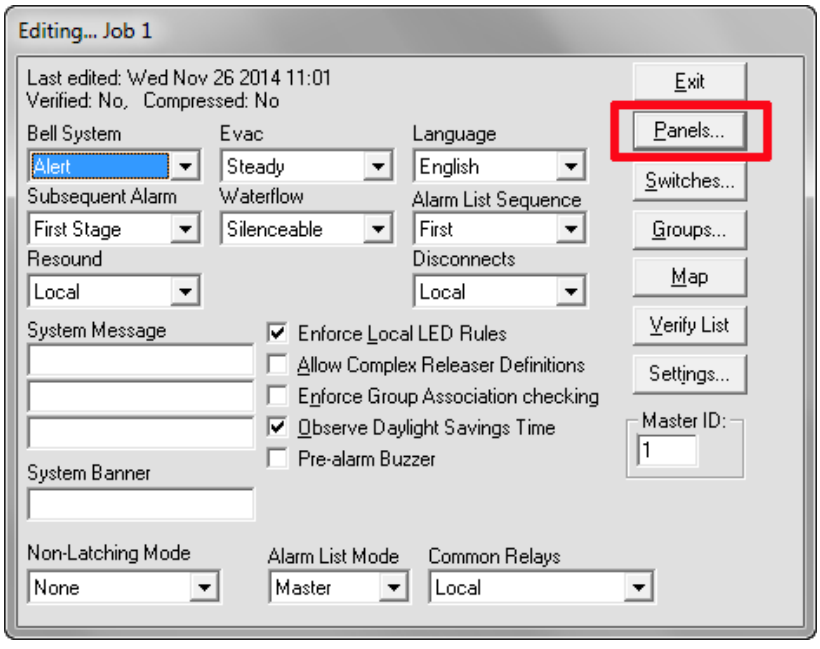


Figure 8 The Editing window

4. Click the **Panels** button.

The Panels window appears.

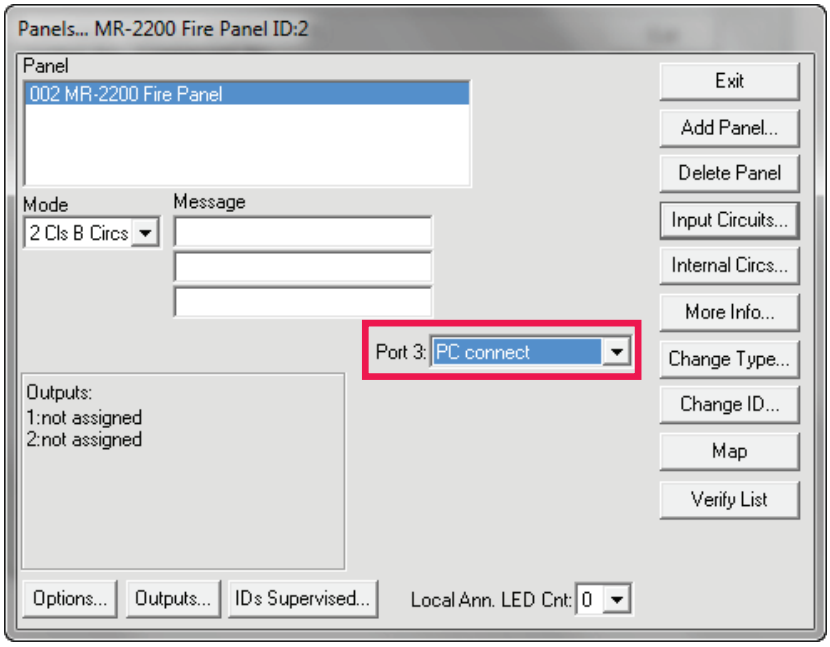


Figure 9 The Panels window

5. In the **Port 3** menu, select **PC connect**.
6. Click **Exit** and send the job to the panel.

4.2 Export the configuration file in .txt format

1. In the MHI application, click **System** -> **Export**.

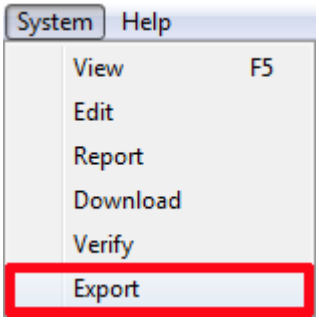


Figure 10 Export

The Export System window appears.

2. Select **OpenGN**, and then click **Export**.

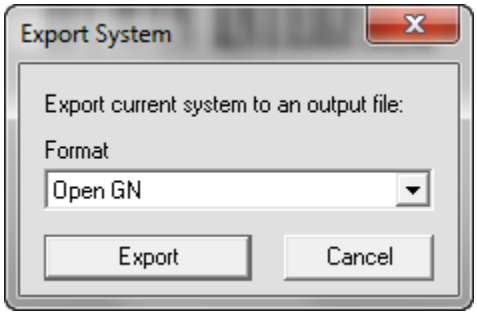


Figure 11 OpenGN file type

4. Click **Yes**.

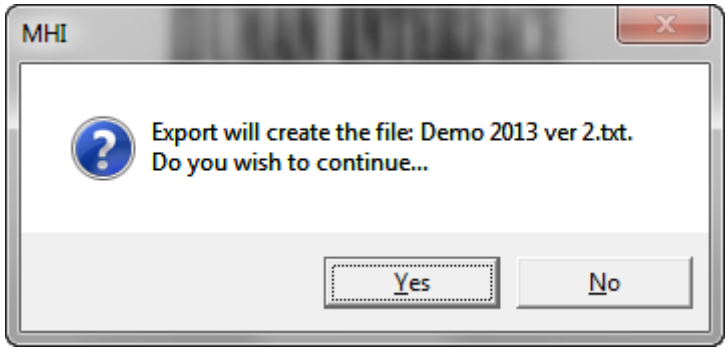


Figure 12 Export file confirmation

4.3 Convert the configuration file from .txt to .xml format

You need:

- The Secutron_ConfigXML application

1. Open the Secutron_ConfigXML application.

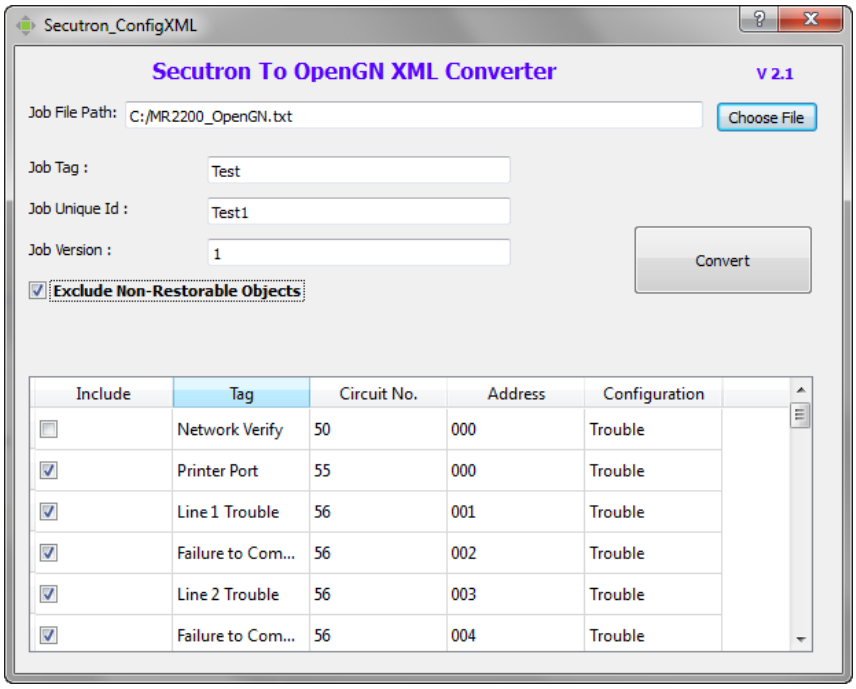


Figure 13 The Secutron to OpenGN XML Converter

2. Enter the following information.

Job File Path	Select the .txt file you created in section 4.2.
Job Tag	A description of the job.
Job Unique Id	A name to identify the job. You can define this yourself. Make a note of this; you will need it later.
Job version	The version of the job. You can define this yourself. Make a note of this; you will need it later.
Exclude Non-Restorable Objects	Select this checkbox in order to ignore events from system status devices that are non-restorable, for example low battery troubles. Restorable system status devices can also be excluded or included individually by selecting the checkboxes in the **Include** column.

Note: Make a note of the **Job Unique Id** and **Job version**. You will need them later.

3. Click the **Convert** button. Save the .xml file by providing a name and location.

4.4 Import the .xml configuration file into OpenGN

1. Transfer the XML job file you just saved to the computer that OpenGN is running on.
2. Insert the OpenGN CodeMeter license key in the computer.
3. Start OpenGN.

   The Login window appears.

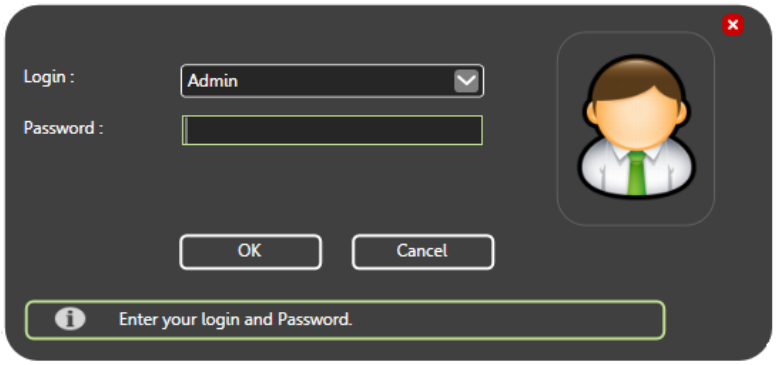


Figure 14 Login Window

4. Select the user from the **Login** menu.
5. Type the password.
6. Click **OK**.

The OpenGN Main Display window appears.

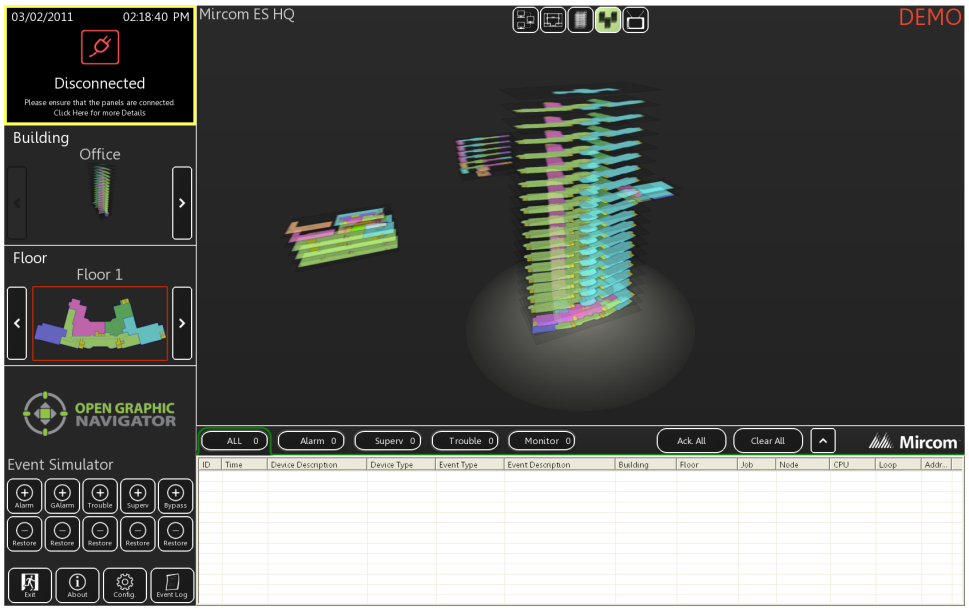


Figure 15 OpenGN Main Display window

7. Click the **Config** button from the Main Display window. Click **Yes** to confirm that you want to enter the configuration section.

   The Configuration window appears.

8. Click the **Settings** button in the lower right-hand corner of the Configuration window.
   The Main Program Settings window appears.

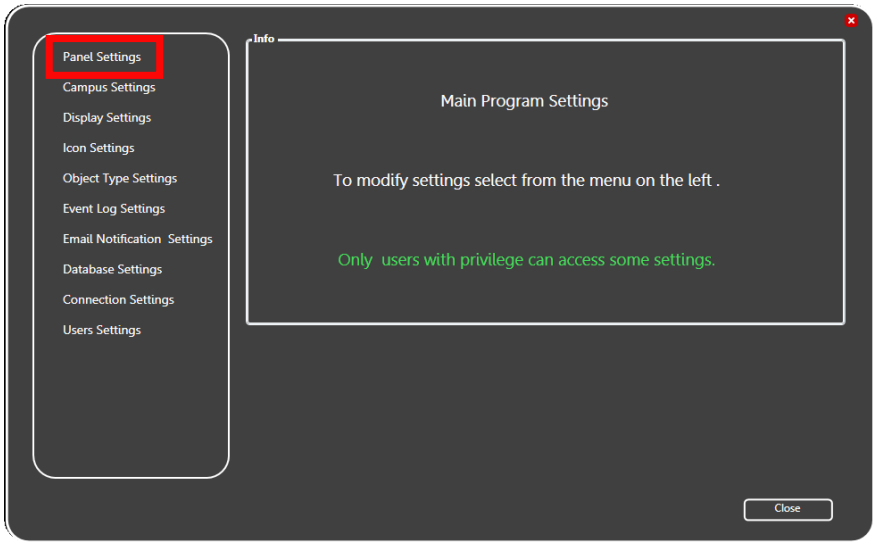


Figure 16 Main Program Settings

9. Click the **Panel Settings** tab.
   The Panel Settings window appears.

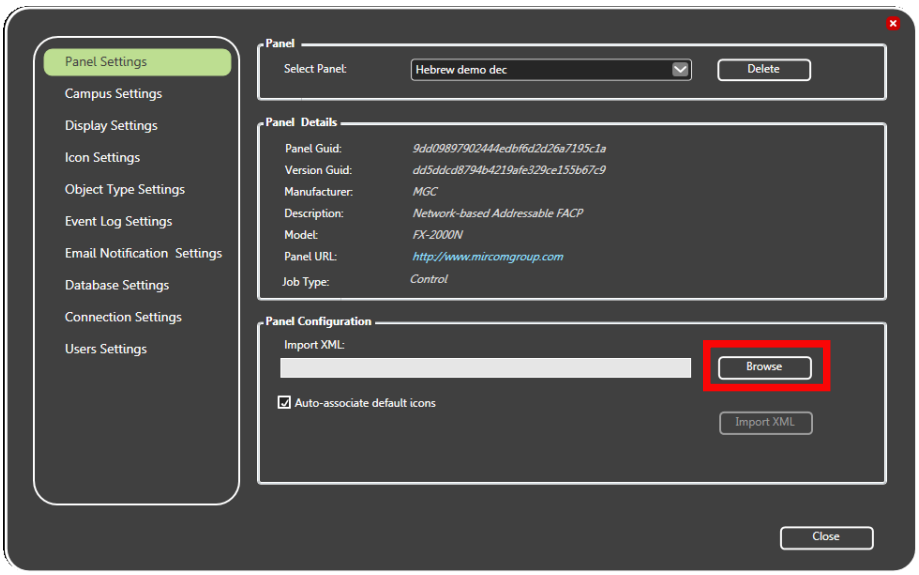


Figure 17 Panel Settings

10. Click **Browse** in the Panel Configuration section, and then navigate to the job file.

11. Select **Auto-associate default icons** if you want to associate the object icons with the existing system icon images.

Note: If you are importing a new version of a previously imported job file, uncheck **Auto-associate default icons**. Otherwise, any custom icon settings you have made will be erased.

12. Click **Import XML**.
13. Click **Yes**.

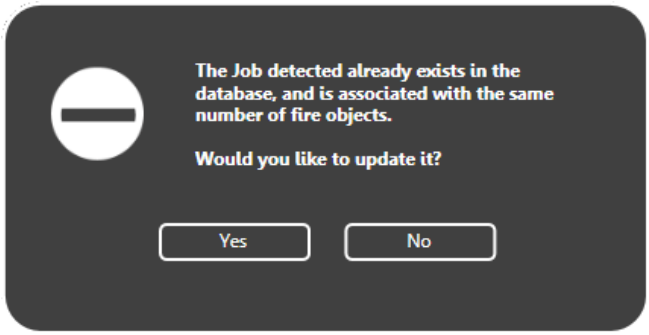


Figure 18 Update Job Confirmation Box

A message appears saying that the import was successful.

a. Click **Close**.

5.0 Configure the XML Adapter

The XML Adapter communicates between the MR-2200 and OpenGN.

5.1 Configure the XML Adapter using a TCP/IP connection

1. Open the XML Adapter.

Figure 19 XML Adapter

2. Click the **+** button.

   The Adapter Configuration window appears.

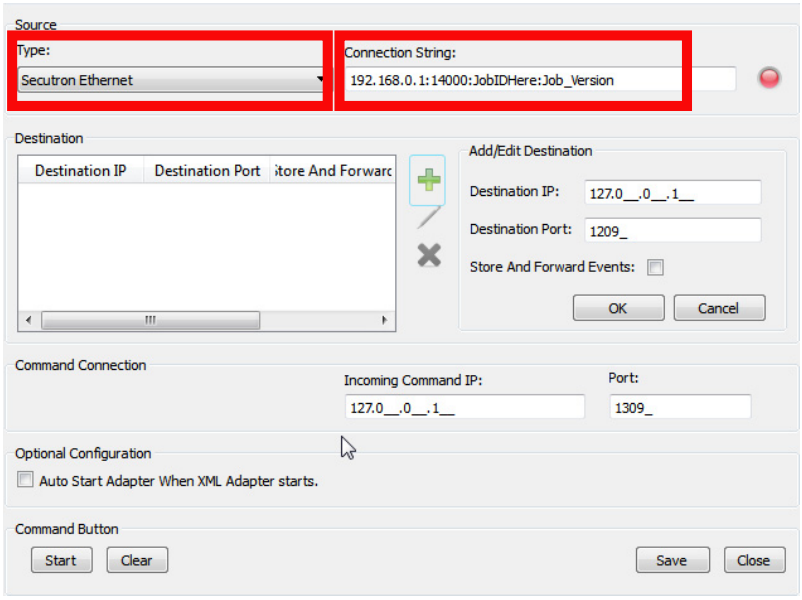


Figure 20 Adapter Configuration window

3. Enter the following information.

Type	Secutron Ethernet
Connection String	The connection string consists of 4 pieces of information separated by colons: • The IP address of the NET323 adapter: you assigned this in section 3.2 on page 8. • The port: **14000** • **Job Unique Id**: the **Job Unique Id** that you created in section 4.3 on page 15. • **Job Version**: the **Job Version** that you created in section 4.3 on page 15. For example, if the IP address is **10.10.8.37**, the Job Unique Id is **Job1**, and the Job Version is **1**, then type **10.10.8.37:14000:Job1:1**

4. Click the green button beside Destination, and then provide the following information:

Destination IP	The IP address of the OpenGN computer. If the XML Adapter and OpenGN are on the same computer, use 127.0.0.1.
Destination Port	**1209**
Store and Forward Events	If this checkbox is selected, then the XML Adapter will store events if it cannot connect to OpenGN. The next time it connects to OpenGN, it will send all the events it has stored.

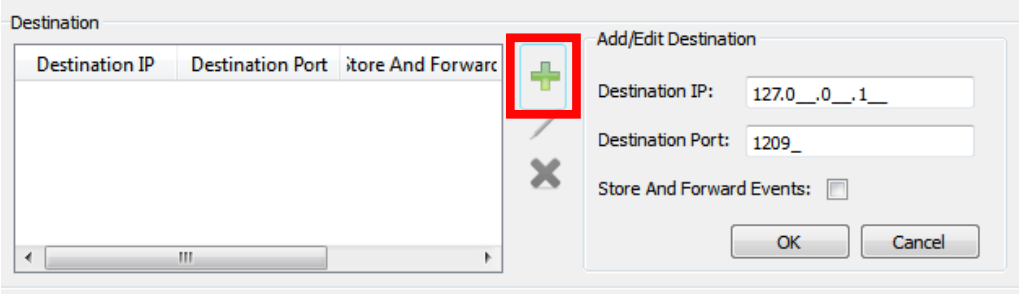


Figure 21 Destination

5. Under **Command Connection**, provide the following information:

Incoming Command IP	The IP address of the computer that the XML Adapter is on.
Port	**1309**. This must be a different port than the port listed above.

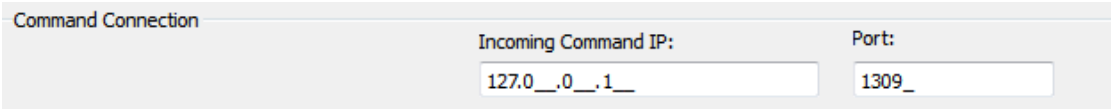


Figure 22 Command Connection

6. Click **Auto Start Adapter When XML Adapter Starts** if you want the XML Adapter to connect automatically with these settings when it starts.
7. Click **Save**.
8. Click **Start**.

   When OpenGN is connected, the icon beside **Connection String** turns from red to green, and the Destination turns green.

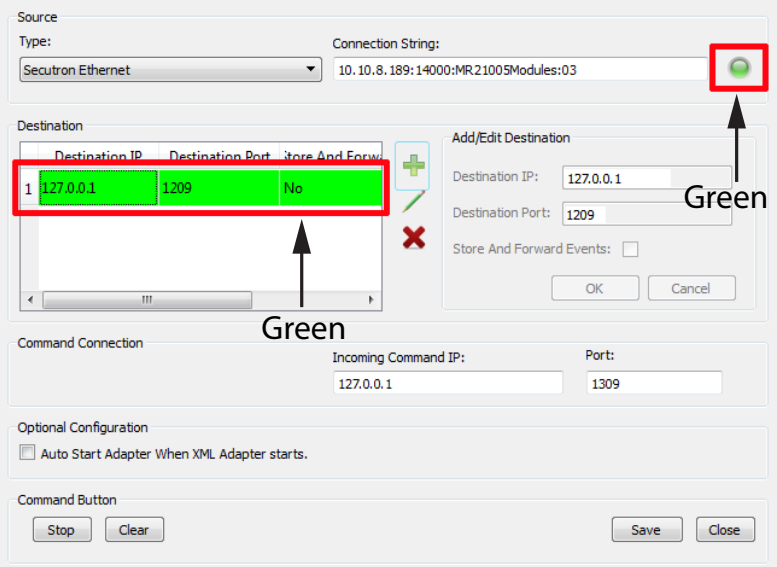


Figure 23 The XML Adapter showing a connection

9. Start OpenGN.

6.0 Troubleshooting

6.1 The Destination in the XML Adapter is Red

If the icon beside Connection String is green, and the Destination is red, then there is a wiring trouble.

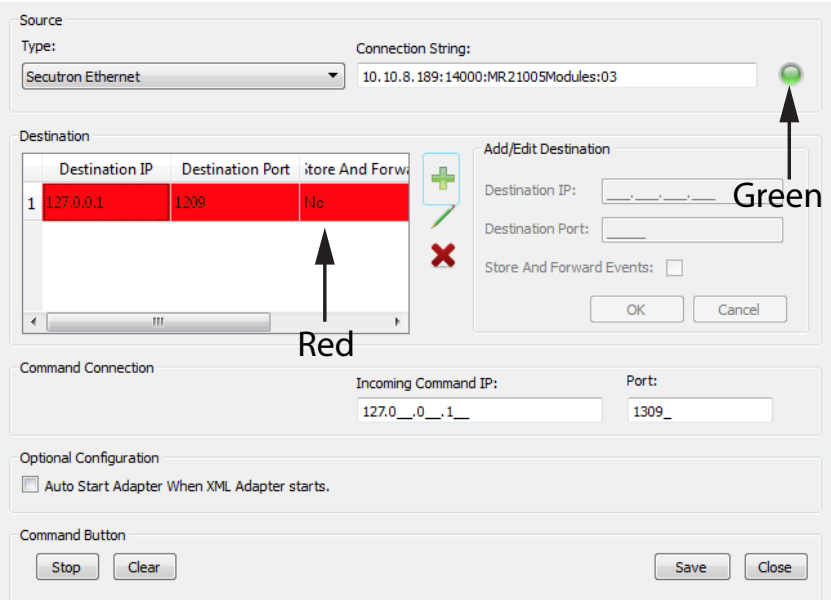


Figure 24 The XML Adapter showing a wiring trouble

See Figure 1 on page 5 for the correct wiring.

Use a multimeter probe to make sure that you are connecting the correct pins.

6.2 Restoring the Default Settings

If you experience problems, it often helps to restore the NET323 adapter's default settings and configure it again.

Note: Restoring the default settings does not change the IP address, subnet mask, and default gateway.

1. Open the DeviceInstaller program.
2. Click the **Search** button.

   The DeviceInstaller program shows all the Gridconnect devices connected to the network. The NET323 adapter appears in the right pane.

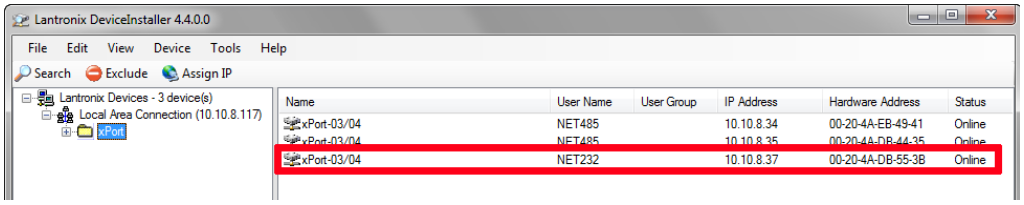


Figure 25 DeviceInstaller window showing the NET323 adapter

3. Double-click the NET323 adapter.
4. Click the **Web Configuration** tab.
5. Click the icon on the far right of the Web Configuration window.

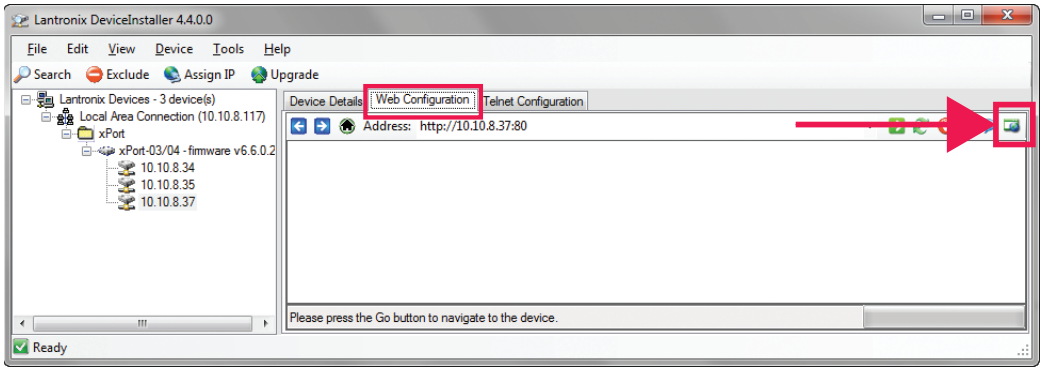


Figure 26 DeviceInstaller Web Configuration

   A browser window opens showing the configuration of the NET323 adapter.

6. Click **OK** in the Username and Password window.
7. In the NET323 configuration window, click the **Apply Defaults** button.

8. Wait while the NET323 adapter restarts.

Note: Restoring the default settings does not change the IP address, subnet mask, and default gateway.

9. Follow the instructions in section 3.2 on page 8 to configure the adapter.