

1.0 Connecting OpenGN to an MR-2200/2900

Attention: Before you begin, follow the instructions in LT-1113 "OpenGN Administrator's Guide" (available on http://www.mircom.com) to install OpenGN and configure the computer running OpenGN and the OpenGN Gateway.

Note: These instructions should be completed by someone familiar with configuring an MR-2200/2900. See LT-2010 the MR-2900 Installation Manual, LT-2011 the MR-2900 Programming Manual, LT-2000 the MR-2100/2200 Installation Manual, and LT-2001 the MR-2100/2200 Programming Manual (available on http://www.secutron.com).

You need:

- ARW-VESP211 Advantech Serial to Ethernet Converter
- PARANI-DB9FTB DB9 to Terminal Block Adapter
- Advantech software CD
- Modul-R Human Interface (MHI) application version 22.0f or later
- MR-2200 with firmware 22.11 or MR-2900 with firmware 22.12
- Secutron_ConfigXML application
- OpenGN version 3.1 or later
- OpenGN Gateway version 3.1 or later
- OpenGN license key
- Ethernet cable

1.1 Connect the ARW-VESP211

This section explains how to connect 5 components:

- MR-2200/2900
- ARW-VESP211
- PARANI-DB9FTB
- OpenGN Gateway (which is installed as part of OpenGN)
- OpenGN (this can be on the same computer as the OpenGN Gateway)

The ARW-VESP211 communicates between the MR-2200/2900 and the OpenGN Gateway.

The ARW-VESP211 can be connected directly to the OpenGN Gateway computer with an Ethernet cable, or it can communicate over a local area network.



- 1. Connect the PARANI-DB9FTB to the COM port on the ARW-VESP211.
- 2. Connect pins 3 and 4 from the PARANI-DB9FTB to the COMLINK 3 + port and COMLINK 3 port on the MR-2200/2900 as shown in Figure 1.
- 3. Connect the ARW-VESP211 to the power.

If you want to connect the ARW-VESP211 to the OpenGN Gateway computer directly:

 Use an Ethernet cable to connect the ARW-VESP211 to the computer running the OpenGN Gateway.

If you have a local area network:

• Use an Ethernet cable to connect the ARW-VESP211 to the same network that the OpenGN Gateway computer is connected to.





1.2 Configure the ARW-VESP211

1.2.1 Configure the OpenGN Gateway Computer to Connect to the ARW-VESP211

In order to initially connect to the ARW-VESP211, the OpenGN Gateway computer must have a specific IP address.

- 1. On the computer that the OpenGN Gateway is on, click **Start**, then click **Settings**.
- 2. Click Network and Internet.
- 3. Click Network and Sharing Center.
- 4. Click the Ethernet connection.



The Ethernet Status window appears.

🖗 Ethernet Status	×
General	
Connection	-
IPv4 Connectivity: Internet	
IPv6 Connectivity: No network access	
Media State: Enabled	
Duration: 5 days 02:13:52	
Speed: 1.0 Gbps	
D <u>e</u> tails	
Activity	- 1
Sent — 🔍 — Received	
Bytes: 57,600,226,918 2,679,045,235	
Properties Diagnose Diagnose	
Qlose	

Figure 2 Ethernet Status

5. Click **Properties**.

The Ethernet Properties window appears.

Connect usin	ıg:				
🚽 Intel(R) 82578DN	M Gigabit Network	Connect	ion	
				<u>C</u> onfigu	re
This connect	ion uses th	ne following items:			
	and Printe S Packet S met Protoc rosoft Netv rosoft LLD met Protoc	r Sharing for Micro icheduler col Version 4 (TCF work Adapter Mult P Protocol Driver col Version 6 (TCF	osoft Netv P/IPv4) iplexor Pn P/IPv6)	vorks otocol	>
I <u>n</u> stall		<u>U</u> ninstall		Properti	es
Description Allows you network.	ir compute	r to access resou	rces on a	Microsoft	

Figure 3 Ethernet Properties

6. Double-click Internet Protocol Version 4 (TCP/IPv4).



Internet Protocol Version 4 (TCP/IPv	v4) P	roperti	es		×	
General						
You can get IP settings assigned aut this capability. Otherwise, you need for the appropriate IP settings.	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
O Obtain an IP address automatic	ically					
IP address:						
Subnet mask:						
Default gateway:						
Obtain DNS server address aut	Obtain DNS server address automatically					
• Us <u>e</u> the following DNS server a	addre	sses:				
Preferred DNS server:						
Alternate DNS server:				1		
Uaļidate settings upon exit				Ad <u>v</u>	anced	
			OK		Cancel	

The Internet Protocol Version 4 (TCP/IPv4) Properties window appears.



- 7. Click Use the following IP address.
- 8. Type the following addresses:
 - IP address: 169.254.102.40
 - Subnet mask: 255.255.0.0
- 4. Click OK.

1.2.2 Install the Vlinx Serial Server Manager

1. Insert the Advantech CD into the OpenGN Gateway computer.

The Vlinx Serial Server Manager Installation Wizard starts automatically.



Figure 5 Welcome to the Vlinx Serial Server Manager Installation Wizard

2. Follow the instructions on the screen to install the Vlinx Serial Server Manager.



1.2.3 Configure the ARW-VESP211

1. On the OpenGN Gateway computer, open the Serial Server Manager: click **Start > B&B Electronics > Vlinx > Vlinx Serial Server Manager**.

The Vlinx Serial Server Manager appears.



Figure 6 Vlinx Serial Server Manager

- 2. Click I don't know the IP address of the device.
- 3. Click **Connect**.

The Vlinx Serial Server Manager looks for devices.



Figure 7 Advantech Device Details

The Login screen for the ARW-VESP211 device appears.

A REAL PROPERTY AND A REAL	
Immware Upgrade Add VCOM Remove VCOM Diagnostic	
Choose the device by double-clicking on one of the devices in the list below.	
se Connection Port 1	
BE0C1169 169.254.102.39 TCP:S:4000	
X	VESP211-000
Server	
Login	
Password	
Login	
Model VESP211 Freenes Vesice. 1.100 Hardware Vesice. 1 MAC Address: 000EBE0C:11.69 Link Status: 100EaseTX full diples.	
	Server Logn Pauwood Logn VoteSP211 FermoverVision Logn Model VESP211 FermoverVision Logn Model VESP211 FermoverVision Li Model VESP21 F

Figure 8 Login screen



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4. Enter the Login password, then click **Login**. By default, the password is blank.

The General screen appears.

Vlinx Serial Server Manager 1.7.0		And the second se
Open Cfg Save Cfg Server Search	High Firmware Upgrade Add VCOM Remove VCOM Diagnostic	
Which device do you want to configure	re? Choose the device by double-clicking on one of the devices in the list below.	
00:0E:BE:0C:11:69 VESP211-00	D0EBE0C1169 169.254.102.39 TCP:S:4000	
		VESP211-00(
Contents General	General The same of this same in DESD211.000ERE001160	
Network Port 1 Settings Port 1 Serial Save	⊙ I want to change the password.	
Logout	Type the new password Type the new password again to confirm it	
	Save Next	

Figure 9 General screen

- 5. Enter a name that describes the panel that the device is connecting to, for instance **MR-2900**.
- 6. Select I want to change the password, then enter the new password.
- 7. Click Save.

Note: Keep a record of the password. You will need it in a later step.

8. Click Network on the left sidebar.

The Network screen appears.

Vinx Serial Server Manager 1.7.0	and the second se	-
Open Cfg Save Cfg Server Search	10 × 000 Firmware Upgrade Add VCOM Remove VCOM Diagnostic	
Which device do you want to configure?	? Choose the device by double-clicking on one of the devices in the list below.	
00:0E:BE:0C:11:69 VESP211-000E	BRECOTO 1000 TOUL 1000 TOU	
	VES	P211-000
Ethernet Serial	al Server	
Contents	Network	
General Network	□ I want DHCP to setup the network.	
Port 1 Settings Port 1 Serial	IP Address: 192.168.1.11	
Save	Subnet Mask: 255.255.255.0	
Logout	Default Gateway: 192.168.1.1	
	Save Back Next	

Figure 10 Network screen

9. Enter the following information:

IP address Subnet Mask Default Gateway	Consult your network administrator for assistance. The IP address must be in the same range as the IP address of the computer running the OpenGN Gateway. The gateway and subnet mask must be the same as they are on the OpenGN Gateway computer.
	For example, if the OpenGN Gateway computer's IP address and subnet mask are 192.168.1.10 and 255.255.255.0, then you can enter 192.168.1.11 and 255.255.255.0 as the ARW-VESP211's IP address and subnet mask.



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Note: Keep a record of the IP address. You will need it in a later step.

To ensure a constant connection to OpenGN, you must assign a static IP address to the ARW-VESP211.

10. Click Next.

The Port 1 Settings screen appears.

Vlinx Serial Server Manager 1.7.0	And a second second	
Open Cfg Save Cfg Server Search	Firmware Upgrade Add VCOM Remove VCOM Diagnostic	
Which device do you want to configure	Choose the device by double-clicking on one of the devices in the list below. Constant of the device of t	
00:0E:BE:0C:11:69 VESP211-000	me Connecton Port EBE0C1169 169.254.102.39 TCP.S:4000	
		VESP211-000
Contents	Port 1 - Settings	
General Network Port 1 Settings Port 1 Serial	I want to use this network protocol: ● TCP ○ UDP ○ VCOM Mode ○ Paired Mode	
Save Logout	● to wail for connections (server) ○ to initiate connections (client)	
	I want to wait for connections on TCP port number: [4000 and limit the number of connections to: [connection]	
	and allow recyclic field of the set of	
	Save Back Next Advanced	

Figure 11 Port 1 Settings

11. Enter the following information:

I want to use this network protocol	ТСР
to wait for connections (server)	Select this option
I want to wait for connections on TCP port number	14000
and limit the number of connections to	1 connection
and allow everyone to connect	Select this option

12. Click Next.



Ethernet Se	erial Server
Contents	Port 1 - Advanced
General Network	$\hfill\square$ I want to control when connections would be forced closed.
Port 1 Settings Port 1 Serial Save	I want to control when data packets are sent over the network.
Logout	Character Count I want to wait for a specific amount of data to be received by the serial port before sending it.
	0 characters
	Forced Transmit U I want to whit no longer than a specific amount of time after data is received before sending it. U milliseconds
	Intercharacter Timeout
	52 milliseconds
	Delimiter 1
	I want to begin bufferring data when a specific character is received by the serial port. ASCII value for character
	Delimiter 2
	□ I want to send data immediately when a specific character is received by the serial port.
	0 ASCII value for character
	Delimiter Removal I want to remove the delimiter characters from the data before sending the data.

The Port 1 - Advanced window appears.

Figure 12 Port 1 - Advanced

13. Enter the following information:

I want to control when data packets are sent over the network	Select this option
Under Intercharacter Timeout: "I want to send data immediately when no more characters are received for"	52 milliseconds

14. Click Next.

The Port 1 - Serial window appears.

Ethernet Ser	ial Server	and the second s
Contents	Port 1 - Serial	
<u>General</u> Network	Description:	Serial Port 1
Port 1 Settings Port 1 Serial	Mode:	RS-485 (2-Wire)
Save	Baud Rate:	9600 🔽
Logout	Data Bits:	8-Bits
	Stop Bits:	1-Bit 🔽
	Parity:	No Parity
	Flow Control:	No Flow Control
	Save Back N	lext

Figure 13 Port 1 - Serial



15. Enter the following information:

Mode	RS-485 (2-Wire)
Baud	9600
Data bits	8-Bits
Stop bits	1-Bit
Parity	No Parity
Flow Control	No Flow Control

- 16. Click Next.
- 17. Under **Save**, click the **Save** button and wait for the Login screen to appear.

1.2.4 Configure the OpenGN Gateway Computer

• Change the IP settings for the OpenGN Gateway computer to their previous values. See section 1.2.1 on page 2 for instructions on how to change the IP settings.

If you need assistance, contact your network administrator.

If you are connecting the OpenGN Gateway computer to an MR-2200/2900 panel directly over Ethernet, enter an IP address that is different than the IP address of the MR-2200/2900 panel. Enter the same subnet mask as the subnet mask on the panel.



1.3 Configure the Job for the MR-2200/2900

You need:

- The Modul-R Human Interface (MHI) application, version 22.0f or later
- 1. Connect the MR-2200/2900 to the computer that has the MHI configurator application installed on it.
- 2. In the MHI application, open the job for the MR-2200/2900 panel.
- 3. Click System -> Edit.

The Editing window appears.

Editing Job 1			
Last edited: Wed Nov 28 Verified: No, Compresse	6 2014 11:01 ed: No		<u>E</u> xit
Bell System E	vac	Language	<u>P</u> anels
Alert Subsequent Alarm	Steady 🗾 🚽	English 💽 🖣	<u>S</u> witches
First Stage 💌 😒	Silenceable 🛛 💌	First 💌	<u>G</u> roups
Resound Local		Disconnects Local	Map
System Message	🔽 Enforce Loca	al LED Rules	<u>V</u> erify List
	E <u>A</u> llow Comple	ex Releaser Definitions	Settings
	□ <u>□</u> bserve Day	light Savings Time	Master ID:
System Banner	Pre-alarm Bu:	zzer	<u>.</u>
Non-Latching Mode	Alarm List Mode Master 🗨	Common Relays	•

Figure 14 The Editing Window



4. Click the **Panels** button.

The Panels window appears.

Panels MR-2200 Fire Panel ID:2	-
Panel 002 MB-2200 Fire Panel	Exit
	Add Panel
	Delete Panel
Mode Message	Input Circuits
	Internal Circs
	More Info
Port 3: PC connect	Change Type
Outputs: 1:not assigned	Change ID
2:not assigned	Мар
	Verify List
Options Outputs IDs Supervised Local Ann. LED Cnt: 0 💌	

Figure 15 The Panels Window

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

1.4 Export the Configuration File

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

Syst	em Help	
	View	F5
	Edit	
	Report	
	Download	
	Verify	
	Export	



The Export System window appears.



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



Figure 17 OpenGN File Type

3. Click Yes.

мні	
?	Export will create the file: Demo 2013 ver 2.txt. Do you wish to continue
	<u>Y</u> es <u>N</u> o

Figure 18 Export File Confirmation



1.5 Convert the Configuration File to XML Format

You need:

- The Secutron_ConfigXML application
- 1. Open the Secutron_ConfigXML application.

Secutron_Conf	igXML				? ×
	Secutron To O	penGN XML	Converter		V 2.1
Job File Path: C:/	MR2200_OpenGN.txt				Choose File
Job Tag :	Test				
Job Unique Id :	Test1				
Job Version :	1			Con	vert
Exclude Non	Restorable Objects				
	_				
Include	Tag	Circuit No.	Address	Configuration	Ê
	Network Verify	50	000	Trouble	
	Printer Port	55	000	Trouble	
	Line 1 Trouble	56	001	Trouble	
	Failure to Com	56	002	Trouble	
	Line 2 Trouble	56	003	Trouble	
V	Failure to Com	56	004	Trouble	-
	Failure to Com	56	004		Trouble

Figure 19 The Secutron to OpenGN XML Converter



2. Enter the following information.

Job File Path	Select the text file you created in section 1.4.
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.

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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.

1.6 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.

	Ì
Login:	admin
Password:	
DB Server:	localhost\SQLEXPRESS
DB Name:	OpenGN
	OK Cancel
En	ter your Login and Password.

Figure 20 Login Window



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

The OpenGN Main Display window appears.



Figure 21 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 Panel Settings window appears.

Panel Settings	Panel			
Campus Settings	Select Panel:			
Display Settings	r Panel Details			
Icon Settings	Panel Guid:			
Object Type Settings	Version Guid:			
Event Log Settings	Manufacturer:			
Event Log Settings	Description:			
Email Notification Settings	Model:			
Database Settings	Panel URL:			
Connection Settings	Job Type:			
Uhan Satisan	Filename:			
Users Settings	Panel Configuration -			
	Import XML:			
				Browse
	📕 Auto-associate	default icons		Import
J				

Figure 22 Panel Settings



- 9. Click **Browse** in the Panel Configuration section, and then navigate to the job file.
- 10. Select **Auto-associate default icons** if you want to associate the object icons with the existing system icon images.

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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.

- 11. Click Import XML.
- 12. If the job already exists, a window appears asking you if you want to update the stored version of the job with the one you are importing. Click **Yes**.



Figure 23 Update Job Confirmation

13. Restart OpenGN.

1.7 Configure the OpenGN Gateway

The OpenGN Gateway communicates between the MR-2200/2900 and OpenGN.

1. Double-click the Open Graphic Navigator Gateway icon.

OpenGN Gateway			
OPEN GRAPP	OpenGN Gatewa	المالية المالية • • • • • • • • • • • • • • • • • • •	UP OF COMPANIES
Adapter List			
Source Type So	surce Connection Command IP	Command Port	
Copyright (C) 2013- 2016			

Figure 24 OpenGN Gateway



2. Click the + button. 🕂

The Adapter Configuration window appears.

vne: c	Poppertion String:
MR-2900 🔻	192.168.0.1:14000:JobIDHere:Job_Version
estination Destination IP Destination Port itore And Fo	orwarc Add/Edit Destination Destination IP: Destination Port: Store And Forward Events:
<	OK Cancel
III ommand Connection II	OK Cancel

Figure 25 Adapter Configuration Window



3. Enter the following information.

Туре	MR-2900
Connection String	The connection string consists of 4 pieces of information separated by colons:
	 The IP address of the ARW-VESP211: you assigned this in section 1.2 on page 2.
	• The port: 14000
	 Job Unique Id: the Job Unique Id that you created in section 1.5 on page 13.
	 Job Version: the Job Version that you created in section 1.5 on page 13.
	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 OpenGN Gateway and OpenGN are on the same computer, use 127.0.0.1.
Destination Port	1209
Store and Forward Events	Reserved for future use.

Destination				Add/Edit Destination	
Destination IP	Destination Port	itore And Forward	÷	Destination IP: 127.001_	
			~	Destination Port:	1209_
			×	Store And Forward	Events:
•	III				OK Cancel





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

Incoming Command IP	The IP address of the computer that the OpenGN Gateway is on. If the OpenGN Gateway and OpenGN are on the same computer, use 127.0.0.1.
Port	1309 . This must be a different port than the port listed above.

Command Connection	Incoming Command IP:	Port:
	127.001	1309_

Figure 27 Command Connection

- 6. Click **Auto Start Adapter When OpenGN Gateway Starts** if you want the OpenGN Gateway to connect automatically with these settings when it starts.
- 7. Click Save.
- 8. Select the adapter you created, and then click the green arrow icon:

When OpenGN is connected, the adapter in the Adapter List is green.

elect Interf	Oper ace: Local Area Co	IGN Ga	ateway	V1.0.2	GROUP OF COMPANIE
lapter List					
Source Type	ource Connection	Command IP 10.10.8.201	1310	Command Port	
					AI

Figure 28 OpenGN Gateway with One Connection



9. Double-click the adapter to view its details.

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

Source				
Type:	Connection Striga: 10.10.8.37:14000:Job1:1			
MR-2900				
Destination		Add/Edit Destinati	on	
1 127.0.0.1 1209 No	And Forwi	Destination IP:	127.0.0.1	
		Destination Port:	1209 Green	
I I I	×	Store And Forwar	d Events:	
Command Connection	en	L		
	Incoming Command	IP:	Port:	
	127.0.0.1		1309	
Optional Configuration				
Command Button				
Stop Clear			Save Close	

Figure 29 The OpenGN Gateway Showing a Connection

10. Start OpenGN.



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