

# 1.0 Connecting OpenGN to an FX-3500 or FX-3318

## 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 who is familiar with configuring the FX-3500 or FX-3318. For the FX-3500, see LT-1083 the FX-3500 Installation and Operation manual, and LT-1148 the FX-3500 Configuration Guide. For the FX-3318, see LT-1201 the FX-3318 Installation and Operation manual, and LT-1148MOD the FX-3318 Configuration Guide (available on http://www.mircom.com).

#### You need:

- ARW-VESP211 Advantech Serial to Ethernet Converter
- Advantech software CD
- Ethernet cable (maximum 300')
- 9 pin male to female serial cable
- FX-3500 or FX-3318 firmware version 3.0.16
- MGC-3000 Configurator version 3.0.1 or later
- OpenGN version 3.8 or later
- OpenGN Gateway version 3.8 or later
- OpenGN license key
- Ethernet cable

# 1.1 Connect the ARW-VESP211

- 1. Connect the 9 pin serial cable to the COM port on the ARW-VESP211.
- Connect the other end of the 9 pin serial cable to the RS-232 port on the FX-3500/FX-3318.
- 3. Use an Ethernet cable to connect the LAN port on the ARW-VESP211 to the computer running the OpenGN Gateway.
- 4. Connect the ARW-VESP211 to the power.

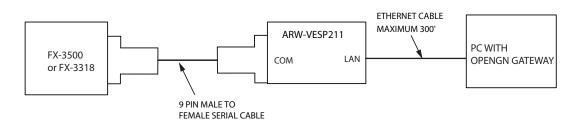


Figure 1 Connect the ARW-VESP211 to the OpenGN Gateway Computer



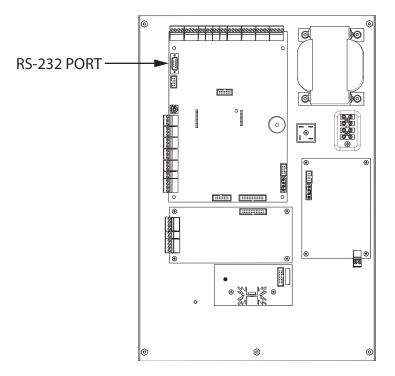


Figure 2 RS-232 Port on the FX-3500/FX-3318

# 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	Х
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	

Figure 3 Ethernet Status

5. Click **Properties**.

The Ethernet Properties window appears.

Connect using:			
Intel(R) 82578D	M Gigabit Network Con	inection	
		<u>C</u> onfigu	ıre
This connection uses t	he following items:		
Gos Packet S     Gos Packet S	col Version 4 (TCP/IPv work Adapter Multiplexe	4) or Protocol	>
l <u>n</u> stall	<u>U</u> ninstall	Properti	ies
Description			
Allows your compute network.	er to access resources	on a Microsoft	

Figure 4 Ethernet Properties

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



Internet Protocol Ve	ersion 4 (TCP/IPv4	1) Properti	ies		×
General					
You can get IP set this capability. Oth for the appropriate	erwise, you need				
Obtain an IP	address automatic	ally			
IP address:					]
Subnet mask:					]
Default gateway	/:				]
Obtain DNS s	erver address auto	matically			
• Us <u>e</u> the follow	ving DNS server ad	dresses:-			
Preferred DNS s	erver:				]
Alternate DNS s	erver:				]
🗌 Vaļidate sett	ings upon exit			Ad <u>v</u> ar	nced
			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
- 5. 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 6 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 7 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 8 Advantech Device Details

The Login screen for the ARW-VESP211 device appears.

	imware 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.	
MAC Address Server Nam		
00:0E:BE:0C:11:69 VESP211-000E	BE0C1169 169.254.102.39 TCP:S:4000	
LA	X	VESP211-000
Ethernet Serial	Server	
Contents	Login	
	Password	
	Login	
	Model VESP211 Frances Vesics 1.10.0 Hardware Vesics 1 MAC Address 0.00EBE0C:11.69 Link Status: 100BaseTX full diplex.	

Figure 9 Login screen



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

The General screen appears.

Vinx Serial Server Manager 1.7.0	Second St. Conception of the American Street	The second s
Open Cfg Save Cfg Server Search F	j∰X @vi imwareUpgrade AddVCOM RemoveVCOM Diagnostic	
Which device do you want to configure? O	Choose the device by double-clicking on one of the devices in the list below. e Connection Port 1	
	e Connecton POT I BEOC1163 (159.254.102.39) TCP:S-4000	
	X	VESP211-000
Ethernet Serial	Server	
Contents	General	
General Network	The name of this serial server is: VESP211-000EBE0C1169	
Port 1 Settings Port 1 Serial	☑ I want to change the password.	
Logout	Type the new password:	
Logous	Type the new password again to confirm it:	
	Save Next	

Figure 10 General screen

- 5. Enter a name that describes the panel that the device is connecting to, for instance **FX-3500** or **FX-3318**.
- 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.

Vlinx Serial Server Manager 1.73	0 Firmare Upgrade AddVCOM Remove VCOM Diapontic	
MAC Address Server	197 Dicesse to device by dealeR-clinking on one of the devices in the list below. Newe Concentor Ref 1 000586021159 169.254.102.29 TCP-S-4000	
Ethernet Ser	ial Server	VESP211-000
Contents	Network	
General Network Pon1Setings Pon1Seting Save	□ I want DHCP to setup the network.         IP Address:       192 168.111         Subnet Mask:       255 255 05         Defnuit Gateway:       192 168.1.1         Sawe       Back	

Figure 11 Network screen

9. Enter the following information:

IP address	Consult your network administrator for assistance. The IP
Subnet Mask	address must be in the same range as the IP address of the computer running the OpenGN Gateway. The gateway and
Default Gateway	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 <b>192.168.1.11</b> and <b>255.255.255.0</b> 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.

	igure? Choose the device by double-clicking on one of the devices in the list below. er Name Connection Pot 1	
	Vername Connecton For 1 1000EBE0C1169 169.254.102.39 TCP:5:4000	
	WX / Second	VESP211-
Contents	Prial Server Port 1 - Settings	
Seneral letwork Port 1 Settings Port 1 Setial Seve	I want to use this network protocol ● TCP ○ UDP ○ VCOM Mode ○ Paired Mode	
ogout	to wait for connections (server)     to initiate connections (client)	
	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     and allow a specific rung of IP address to connect     and allow a specific rung of IP addresses to connect	
	Save Back Next Advanced	

## Figure 12 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.

The Port 1 - Advanced window appears.

FX3500-000EBE0C0989 (128.15.1	.160 × +	
(←) → ℃ @	0 💋 128.15.1.168/port_advanced.html?1	
NT THIN		
Ethernet Serie	al Server	
Contents	Port 1 - Advanced	
General Network	□ I want to control when connections would be forced closed.	
Port 1 Settings Port 1 Serial	☑ I want to control when data packets are sent over the network.	
Save	Character Count	
Logout	☐ I want to wait for a specific amount of data to be received by the serial port before sending it.	
	0 characters	
	Forced Transmit	
	I want to wait no longer than a specific amount of time after data is received before sending it.	
	0 milliseconds	
	Intercharacter Timeout	
	☐ I want to send data immediately when no more characters are received for:	
	0 milliseconds	
	Delimiter 1	
	☑ I want to begin bufferring data when a specific character is received by the serial	
	port. 60 ASCII value for character	
	Delimiter 2	
	☑ I want to send data immediately when a specific character is received by the serial port.	
	10 ASCII value for character	
	Delimiter Removal	
	$\hfill \square$ I want to remove the delimiter characters from the data before sending the data.	
	Save Back Next	
		Convolute # 2007. 2013 All states second

Figure 13 Port 1 - Advanced

13. Enter the following information:

I want to control when data packets are sent over the network	Select this option
Under Delimiter 1: "I want to begin buffering data when a specific character is received by the serial port"	60
Under Delimiter 2: "I want to send data immediately when a specific character is received by the serial port"	10

14. Click Next.



#### The Port 1 - Serial window appears.

Vlinx Serial Server Manager 1.7.0	And the second second	A REAL PROPERTY AND A REAL
Open Cfg Save Cfg Server Search	Firmware Upgrade Add VCC	X Nya M. Remove VCOM. Diagnostic
		licking on one of the devices in the list below.
MAC Address Server Na 00:0E:BE:0C:11:69 VESP211-000		Pot1 9 102-5400
Ethernet Seria	Server	VESP211-000
Contents	Port 1 - Serial	
General Network	Description:	Serial Port 1
Port 1 Settings Port 1 Serial	Mode:	R8-232 v
Save	Baud Rate:	9600
Logout	Data Bits:	S-Bits 🗸
	Stop Bits:	1-8a 🔽
	Parity:	No Parity 🔽
	Flow Control:	No Flow Control
	Save Back N	24

Figure 14 Port 1 - Serial

15. Enter the following information:

Mode	RS-232
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 FX-3500/FX-3318 panel directly over Ethernet, enter an IP address that is different than the IP address of the FX-3500/FX-3318 panel. Enter the same subnet mask as the subnet mask on the panel.



# 1.3 Export the Job File

You need:

- The MGC-3000 Series Configurator Utility version 3.0.1 or later
- 1. Connect the FX-3500/FX-3318 to the computer that has the MGC-3000 Series Configurator Utility installed on it.
- 2. In the MGC-3000 Series Configurator Utility, open the job for the FX-3500/FX-3318 panel.
- 3. Select **OpenGN** in the **Port Protocol** menu.

š 🚺 🖻 🛍 🏦 🗡 🖉	· 읎 # # # # = (♣ '	१ №?				
b Details: 3318 Base I/O	Job Info		Job 6: "33	118 Sample Job 3"		
-Bypass Groups -Output Groups	Version 1: 3318 UL	.C French				
- Main Display - Dialer	Created on: 2018-1	2-06	by: Adm	in		
Common System Status	Language					
out Summary tput Summary	Show system messages	s in	English	•		
.,,	_ <u>O</u> ptions					
	🔽 Manual Signal Silend	се	Common	Supervisory Relay	Building Alert	
	Fire Drill		🔲 Signal Is	olator Used	✓ Polled Device Flashes	
	Waterflow Retard Op	Waterflow Retard Operation		ge Operation	Class-A Loops	
	Auxiliary Disconnect Alm&Spv		🔲 Second Stage Alarm Relay Op.		Class-A CLIP Inputs	
	Alarm Transmit Silen	ice	Positive.	Alarm Sequence	Access Code Required	
	Strobes Type:		Evacuation Code:		Agency Selection:	
	Normal	•	Temporal	•	ULC Standard	
	Timers					
	Signal Silence Inhibit	Disabled	•	General Alarm:	Disabled 💌	
	Auto Signal Silence:	Disabled	•	Power Fail Delay:	None	
	New Alarm (Secs):	60	•	Auto Resound (Mins):	None	
	Date and Time	oring				
	Enable Auto After H		С	lock Daily Compensation	0 · sec	
	Holidays				Inc	
	Start Date End	Date		Daytime Start 08	59	
	xxxx-01-01 xxxx-12-25 xxxx	-12-26		End: 18	00	
				Weekend Start Frida	y 👻 18 : 00	
				End: Mono	day 👻 08 : 59	
		lify				

Figure 15 MGC-3000 Series Configurator Utility

- 4. Send the job to the panel.
- 5. Click **Job > Export Job**.

The Export current job to a file window appears.

Export current	job to a file		Sec. 1		×
Save in:	New folder		•	⇐ 🗈 💣 📰 ◄	
(Ca)	Name	·		Date modified	Туре
Recent Places		No	items match your s	earch.	
Desktop					
Libraries					
Computer					
Network					
	•		m		Þ
	File name:	JohnA_23-06		•	<u>S</u> ave
	Save as type:	OpenGN Phas	e II (*xml)		Cancel

Figure 16 Export current job to a file



6. In the Save as type menu, click OpenGN Phase II (\*.xml), and then click Save.

The job file is saved with the name **JobX-Y.xml**, where **X** is the job number and **Y** is the job version.

## 1.4 Import the XML Configuration File into OpenGN

- 1. Transfer the 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.

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

Figure 17 Login Window

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

The OpenGN Main Display window appears.

03/02/2011 02:18:40 PM	Mircom E	S HQ									D	emo
Disconnected Please ensure that the panels are connected. Click Here for more Details						=						
Building Office												
Floor Floor 1												
<												
OPEN GRAPHIC NAVIGATOR												
	C ALL O		Superv 0	Trouble 0	Monitor 0		Ack All	Clear		^]		ircom
Event Simulator	ID Time	Device Description	Device Type	Event Type	Event Description	Building	Floor	Job	Node	CPU	Loop	Addr
(+) Alarm (+) GAlarm (+) Trouble (+) Superv (+) Bypass												
O         O												
Evit About Config EventLog												

Figure 18 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	Select Panel:	<b>~</b>	
Campus Settings			
Display Settings	- Panel Details		
Icon S <del>ett</del> ings	Panel Guid: -		
Object Type Settings	Version Guid: -		
Event Log Settings	Manufacturer: -		
Email Notification Settings	Description: -		
	Model: -		
Database Settings	Panel URL: - Job Type: -		
Connection Settings	Filename: -		
Users Settings	Panel Configuration		
	Import XML:		
			Browse
	Auto-associate default icons		Import
	I		
			Close

#### Figure 19 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.

**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**.

			ime
C	Yes	No	

Figure 20 Update Job Confirmation



# 1.5 Get the JobUniqueID and JobVersion

- 1. Locate the job file that you saved in section 1.3.
- 2. Right-click the job file and select **Open with > Wordpad**.
- 3. Search for JobUniqueID.
- 4. Leave the file open; you will need to copy and paste this information in the next step.

```
<JobInfo JobUniqueID="1fbc3f3a861f4f8aba7b1496f929e203"
JobVersion="211fc778945540a895c7e092d2c0eac4"
ProductType="FX-3500" Tag="Sample Job 3">
```

Figure 21 Example JobUniqueID and JobVersion from the job file

# 1.6 Configure the OpenGN Gateway

The OpenGN Gateway communicates between the FX-3500/FX-3318 and OpenGN.

1. If the OpenGN Gateway is not running, double-click the **Open Graphic Navigator Gateway** icon.

OPEN GRAPHIC     OpenGN Gatewa Select Interface: Local Area Connection	الله الله المعالم المعا على المعالم الم	TOUP OF COMPANIE
Adapter List		

Figure 22 OpenGN Gateway



2. Click the + button. 🕂

The Adapter Configuration window appears.

Source		
Type:	Connection String:	
FX-3500 Series	192.168.0.1:14000:JobIDHere:Job_Versi	on
Destination           Destination IP         Destination Port         itore And            III         III         III	Forwarc       H       Add/Edit Destination         Destination IP:       Destination Port:       Destination Port:         Store And Forward End       Destination	
Command Connection	Incoming Command IP:	Port:
Optional Configuration Auto Start Adapter When OpenGN Gateway start Command Button Start Clear	127.001 s.	1309_ Save Close

Figure 23 Adapter Configuration Window



3. Enter the following information.

Туре	FX-3500 Series
Connection String	The connection string consists of 4 pieces of information separated by colons:
	<ul> <li>The IP address of the ARW-VESP211: you assigned this in section 1.2 on page 2.</li> </ul>
	• The port: <b>14000</b>
	<ul> <li>Job Unique Id: copy and paste the JobUniqueID from the job file (section 1.5 on page 13).</li> </ul>
	• <b>Job Version</b> : copy and paste the <b>JobVersion</b> from the job file (section 1.5 on page 13).
	For example, if the IP address is 10.10.8.37, and the Job Unique Id and Job Version are the ones shown in section 1.5, then the connection string is:
	10.10.8.37:14000:1fbc3f3a861f4f8aba7b1496f929e2 03: 211fc778945540a895c7e092d2c0eac4

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 Destinatio	n		
Destination IP Dest	ination Port itore And Forwa	rc 🕂	Destination IP: 127.001_			
		X	Destination Port: Store And Forward	1209_		
۲. III.		F		OK Cancel		

Figure 24 Destination



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 25 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.

🛄 OpenGN Gateway	
OPEN GRAPHIC NAVIGATOR OpenGN Ga	_
Select Interface: Local Area Connection	
Adapter List	
Source Type         ource Connection         Command IP           1         FX-3500 Series         10.10.8.195/140         10.10.8.201	Command Port
1 FX-3500 Series 10.10.8.195:140 10.10.8.201	
	×
Copyright (C) 2013- 2016	

Figure 26 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.

Type:	Connection String	:		
FX-3500 Series	<ul> <li>10.10.8.37:14000:1fbc3f3a861f4f8aba7b1496f929e203:211fc7 k</li> </ul>			
Destination			<b>A</b>	
Destination IP Destin	ation Port Store And Forw	Add/Edit Destination	on	
1 127.0.0.1 1209	No	Destination IP:	127.0.0.1	
		Destination Port:	Gree	
	▲ ×	Store And Forward	d Events:	
٠ III.	•	[	OK Cancel	
Command Connection	Green			
Command Connection	Incoming Comman	nd IP:	Port:	
	127.0.0.1		1309	
Optional Configuration				
Auto Start Adapter When XM	L Adapter starts.			
Command Button				

Figure 27 The OpenGN Gateway Showing a Connection

10. Start OpenGN.



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