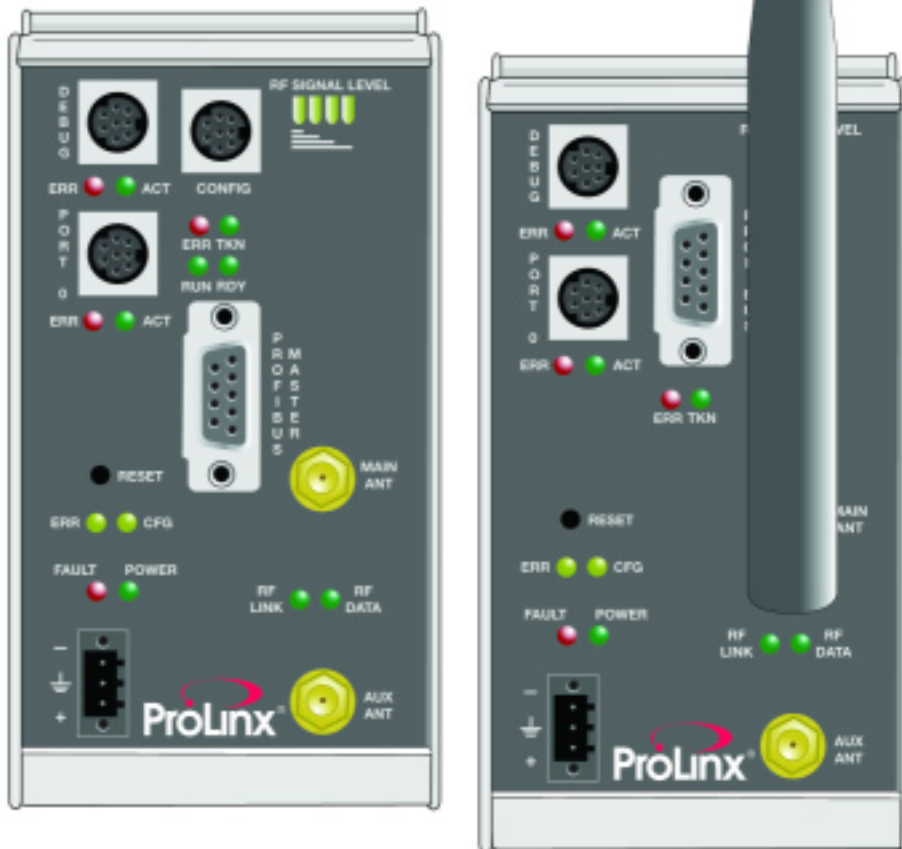


# Quick Start

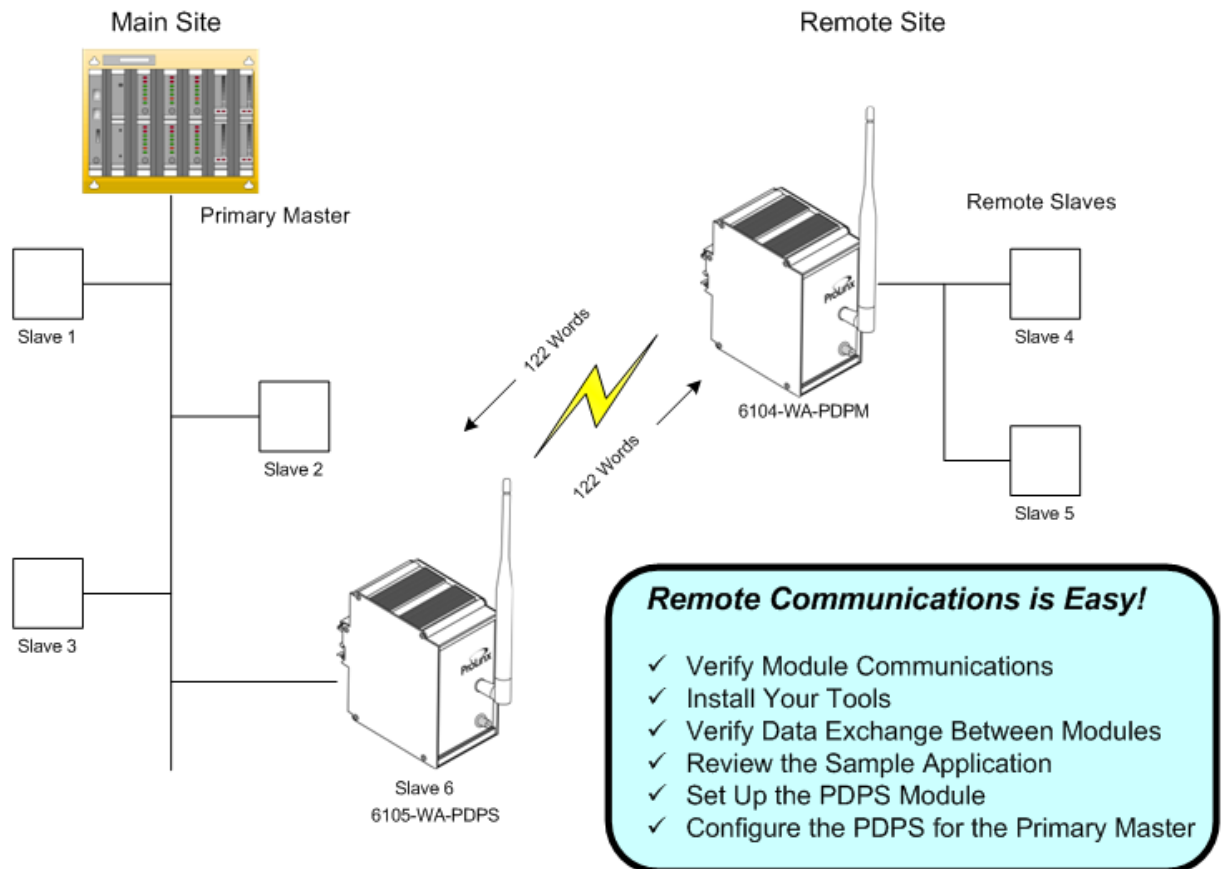
Single Site Application  
PROFIBUS WIRELESS GATEWAYS

**6104-WA-PDPM**  
**6105-WA-PDPS**



# QUICK START

Single Site Application



This Quick Start describes a sample application on how to set up a single (point-to-point) site application based on the following scenario:

- A third-party Master needs to communicate with 5 slaves
- Two of the slaves are remote
- The application uses a ProLinX 6104-WA-PDPM and a 6105-WA-PDPS to establish communication between the Primary master and the remote slaves
- Both of the module's radio communication parameters are preset and configured to pass up to 122 words in either direction out of the box.
- The PDPS is connected to the Primary master
- The PDPM is connected to remote slaves 4 and 5

**Note:** If your application requires multiple slaves and/or more than 122 words, refer to the 6104-WA-PDPM 6105-WA-PDPM Setup Guide.

## Carton Content

The 6104-WA-PDPM and 6105-WA-PDPS cartons contain the following:



5 dBi Omni RP-SMA Articulating Antenna



DB9F to screw-terminal Adaptor



6104-WA-PDPM

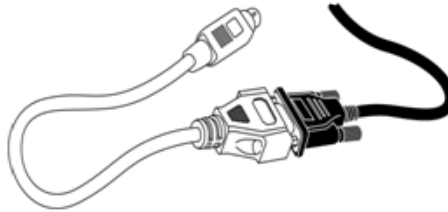
OR



6105-WA-PDPS



ProLinX Solutions Disc



8-Pin mini-DIN to DB9M Cable



Null Modem Serial Cable

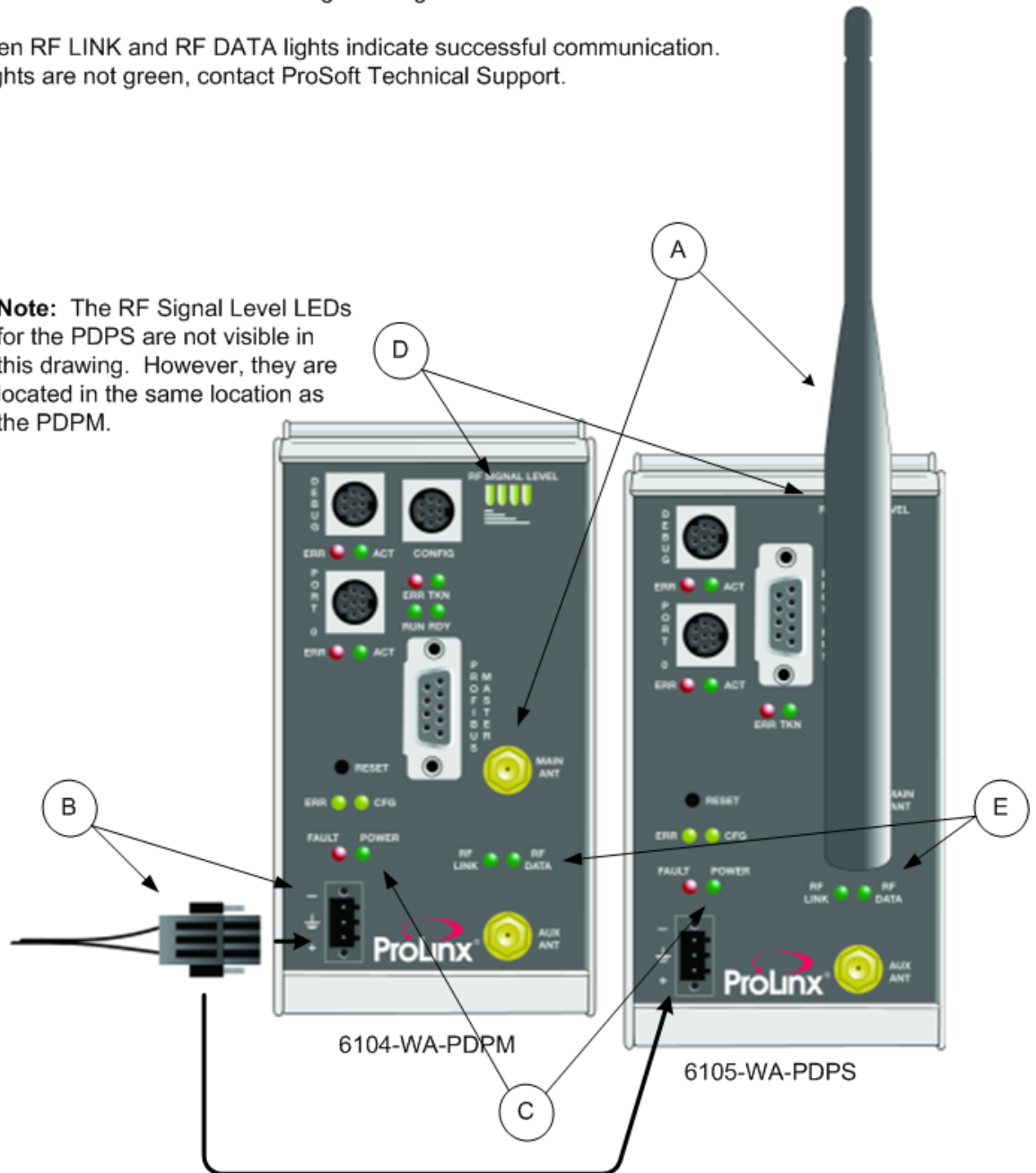
**Note:** The carton also contains a Product Information Booklet and a 2.5 x 50 mm Mini Screwdriver.

## 1. Verify Radio Communication Between Modules

- A. Attach antennas to the MAIN ANT connector on both modules.
- B. Apply power to the power port on each of the modules.
- C. Wait approximately 30 seconds for the module to boot and verify that the POWER LED is On.
- D. Verify that the RF Signal Level LEDs are illuminated.
- E. Verify that RF LINK and RF DATA lights are green.

Both green RF LINK and RF DATA lights indicate successful communication.  
If both lights are not green, contact ProSoft Technical Support.

**Note:** The RF Signal Level LEDs for the PDPS are not visible in this drawing. However, they are located in the same location as the PDPM.



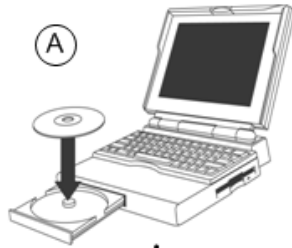
## 2. Install Your Tools

The ProLinx Solutions CD contains everything you need to get started.

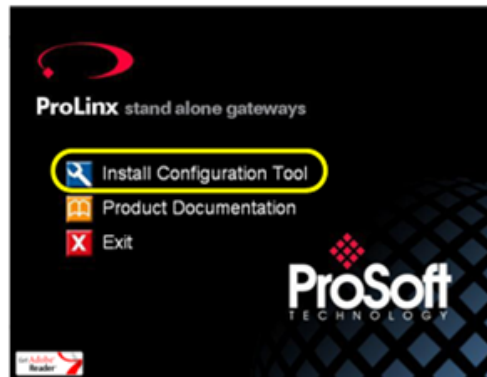
Install...

- ❖ ProSoft Configuration Builder to configure ProLinx modules
- ❖ ProSoft SyCon Configuration Software to configure the remote PROFIBUS network
- ❖ Sample Application Files

### Install ProSoft Configuration Builder



Insert the ProLinx Solutions CD into your PC or Laptop CD-ROM Drive



Click on Install Configuration Tool to launch the install program.

(C)

Follow the prompts to complete the ProSoft Configuration Builder (PCB) configuration tool.


## 2. Install Your Tools (cont.)

### Install the SyCon Configurator Tool

**Important:**

If you already have a version of the SyCon Configurator software installed, we suggest that you install this version on another PC or Laptop.

(A) Click on "Product Documentation".

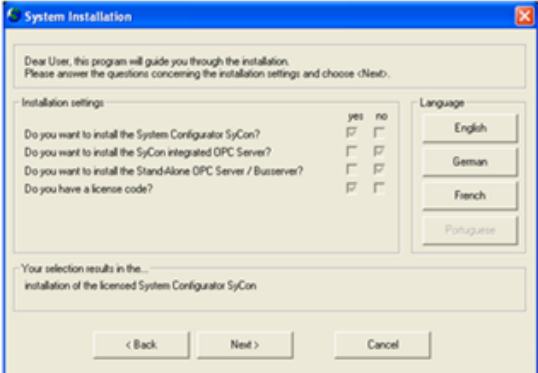


(B) Follow the path to the Setup Program.



(C) Double-click on the Setup icon to start the install.

(D) Make selections on the System Installation window as shown, then click Next.

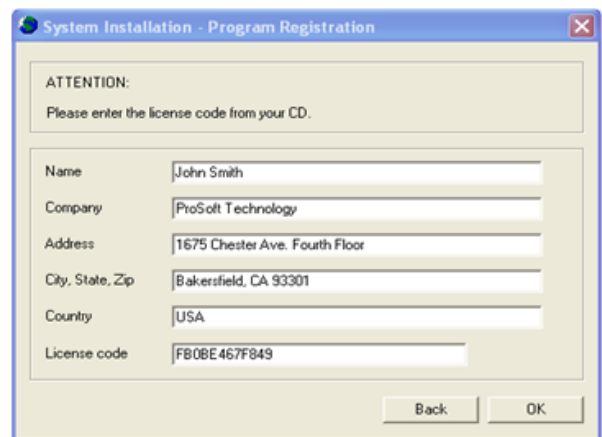


## 2. Install Your Tools (cont.)

### Install SyCon Config Tool (cont.)

**Note:** You do not have to install SyCon integrated OPC Server or StandAlone OPC Server/Busserver

- (A) After accepting the License Agreement, click next to get to the Program Registration page.
- (B) Fill in the information on this page. The license code is located in the SyCon folder on the CD in the LIC\_044.txt file.
- (C) Click OK and follow the prompts to complete the install.



ATTENTION:	
Please enter the license code from your CD.	
Name	John Smith
Company	ProSoft Technology
Address	1675 Chester Ave. Fourth Floor
City, State, Zip	Bakersfield, CA 93301
Country	USA
License code	FB0BE467F849

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### Copy the Sample Application Files

- (A) On the CD, click **Product Documentation**
- (B) Open the **Samples** folder
- (C) Open the **Wireless** folder
- (D) Copy the files **PROLINX WIRELESS SAMPLE.PPF** and **610x-SAMPLE.pb** to your PC.

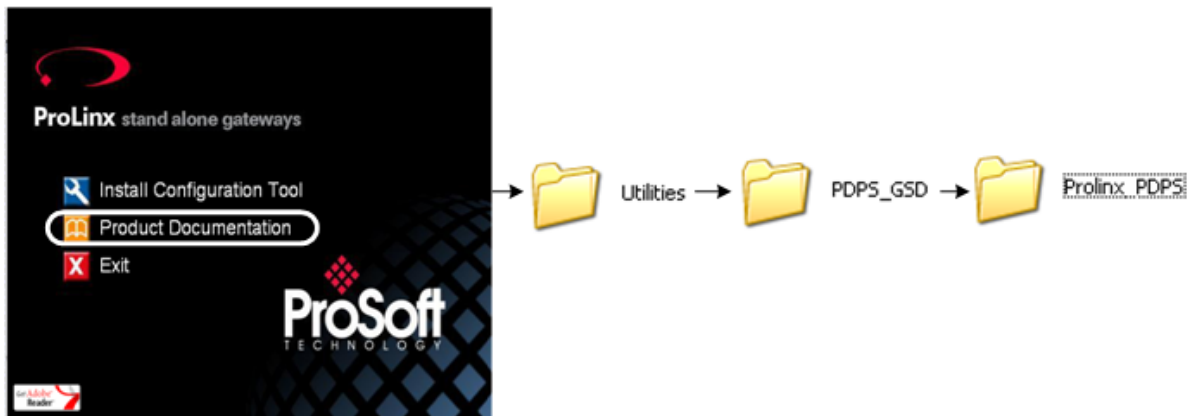


PROLINX WIRELESS SAMPLE  
ProSoft Configuration Builder ...  
89 KB

610x-SAMPLE.pb  
SyCon PROFIBUS Configuration  
544 KB

## 2. Install Your Tools (cont.)

### Copy PDPS GSD Files to Your PC or Laptop



Copy the ProLinX PDPS files to a location on your PC or Laptop. You will need the PDPS GSD files when configuring the module in the Primary Master. The PDPS GSD file must be imported into your primary master configuration software. See your configuration software documentation for information on importing GSD files.

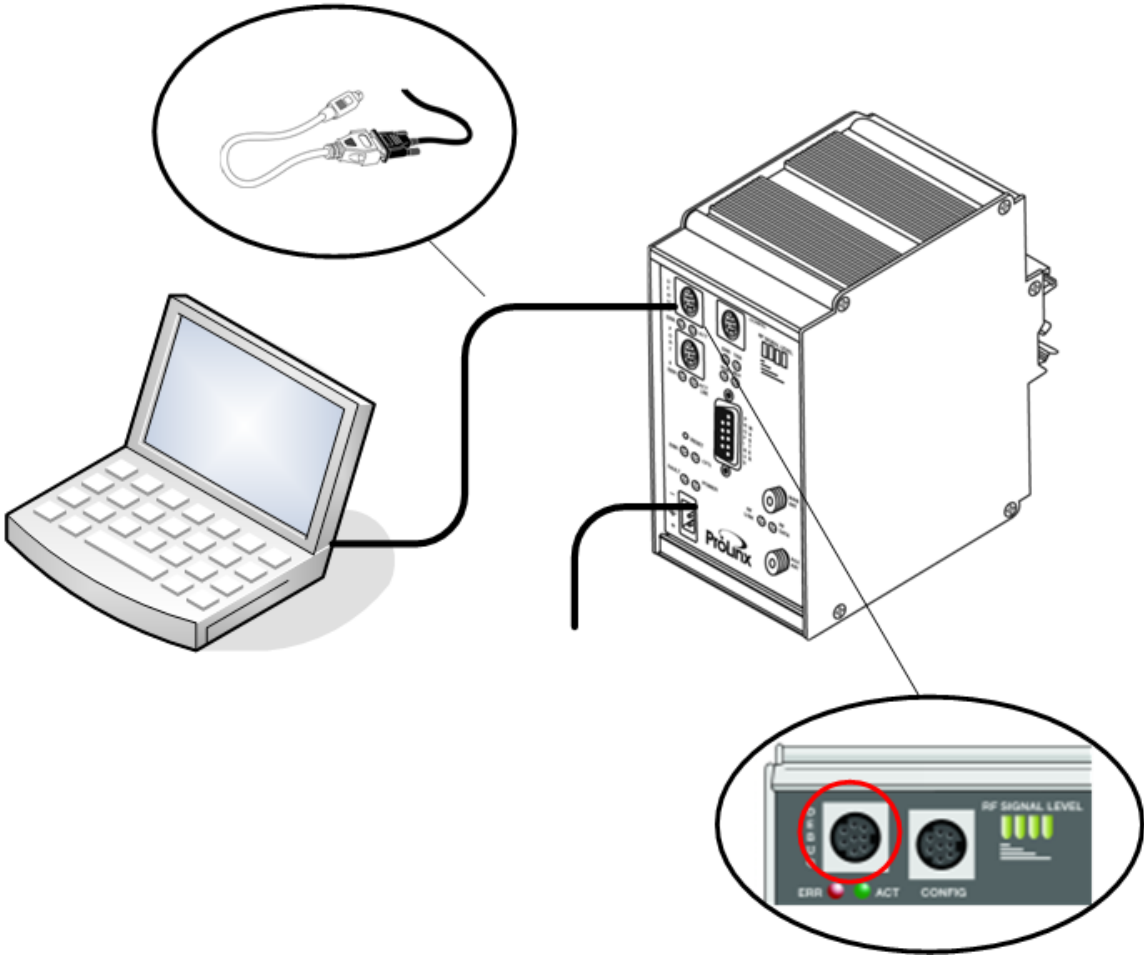


### 3. Verify Data Exchange Between Modules

#### Connect Your PC to the PDPM Module


- (A) Connect the 6104-WA-PDPM module using the Debug port to your PC or Laptop.

**Note:** Ensure that power is still applied to the module.

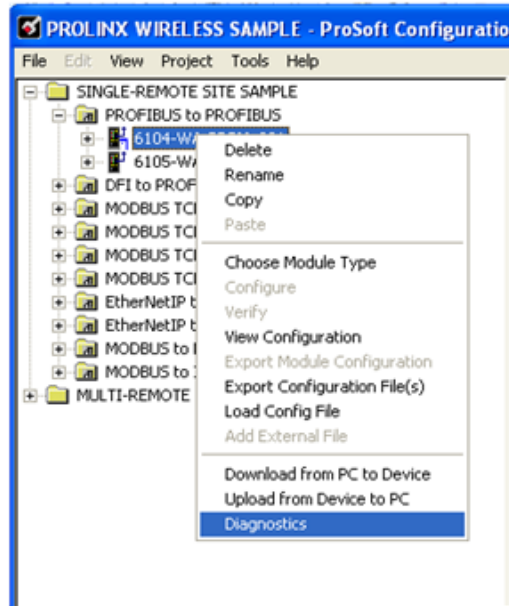


### 3. Verify Data Exchange Between Modules (cont.)

#### Run Diagnostics Using PCB

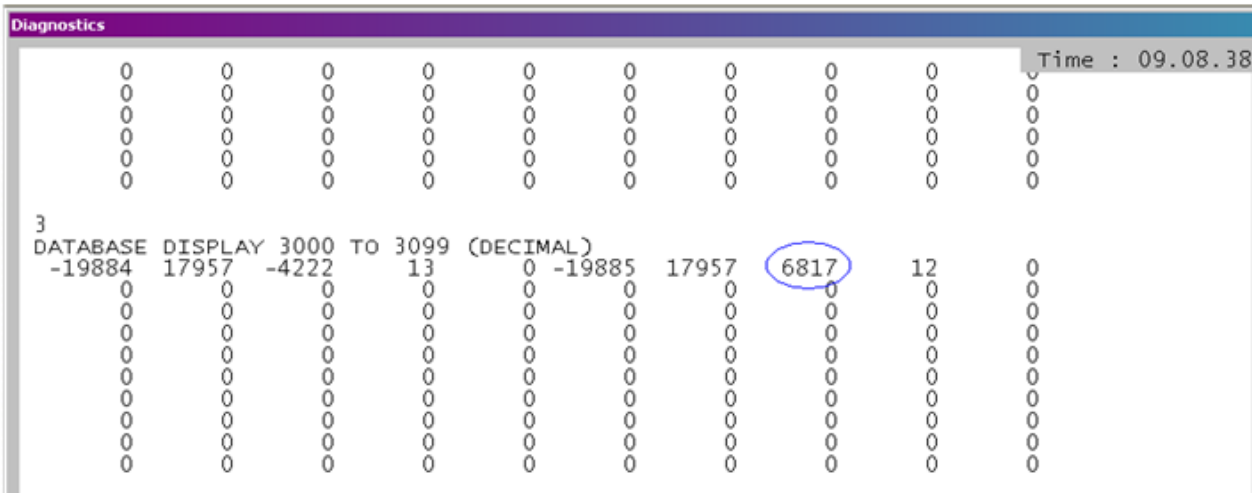
- (A)  Open ProSoft Configuration Builder and select File → Open, then select PROLONX WIRELESS SAMPLE.PPF

- (B) Right-click on 6104-WA-PDPM and select Diagnostics



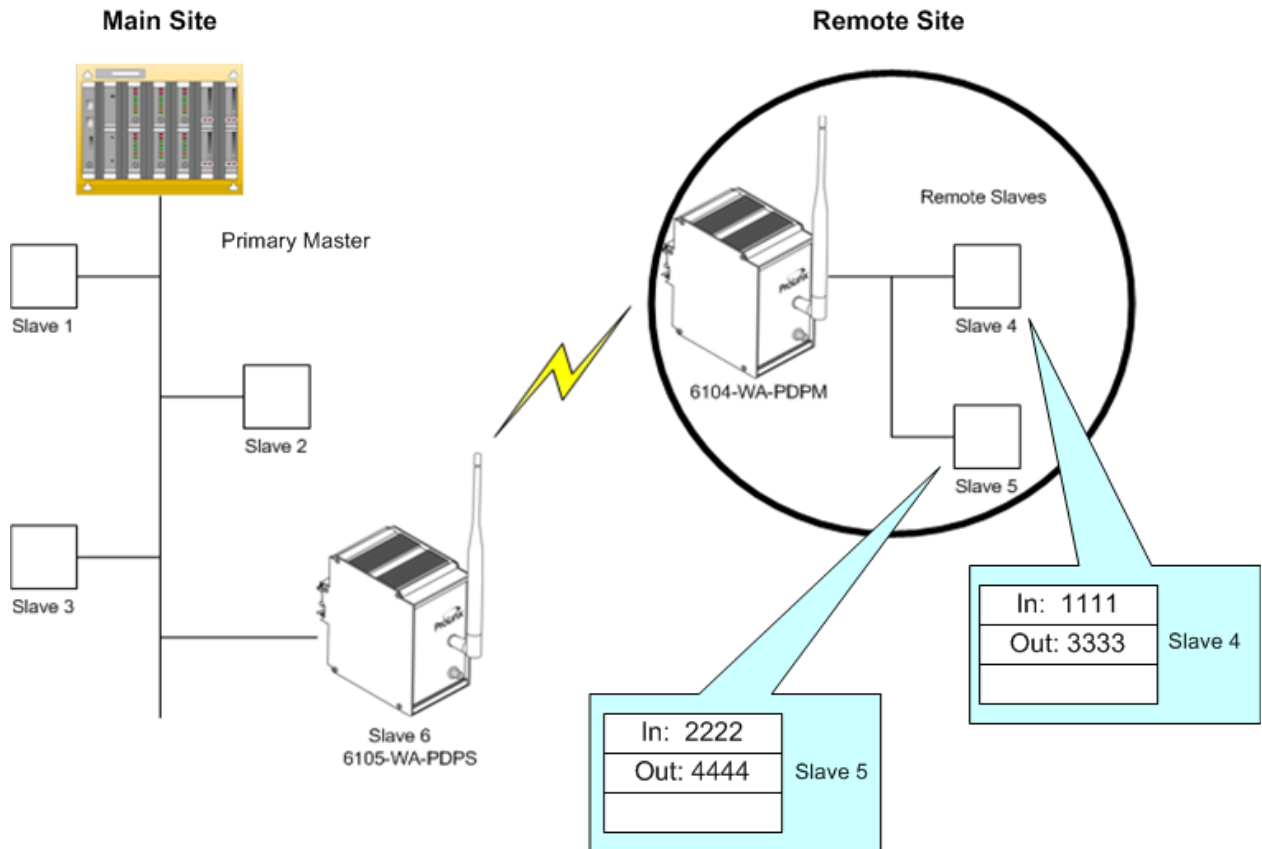
- (C) Enter “?” to display the Diagnostic menu.  
 (D) Press “D” to display the Database menu.  
 (E) Press “3” to show database registers beginning at 3000.  
 (F) Press the “S” key to refresh the database values. The circled values in the example should change each time you press the “S” key indicating the data is being exchanged. If these values do not change, contact ProSoft Technical Support for assistance.

The data shown here represents clock values originating from the 6104-WA-PDPM. The values are stored in 5 registers beginning with register 3000. The clock values are being passed wirelessly to the 6105-WA-PDPS. The PDPS is taking this data and passing it back to the PDPM and placing it into 5 registers beginning at register 3005.



## 4. Review the 6104-WA-PDPM Module Sample Application

The 6104-WA-PDPM module is pre-configured to communicate wirelessly with the 6105-WA-PDPS. It is also configured to read and write data to/from two of the remote slaves (Slave 4 and Slave 5). Each of the slaves are configured to pass 1 word IN and 1 word OUT.

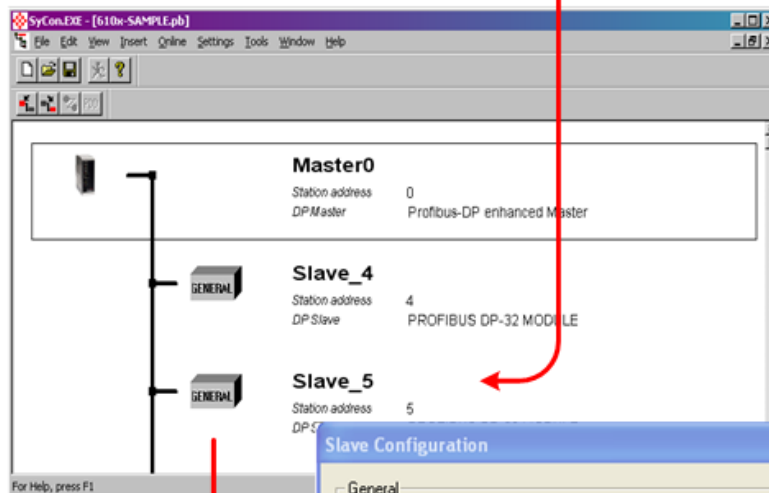


## 4. Review the 6104-WA-PDPM Module Sample Application (cont.)

### Sample Sycon Application and Configuration for Slave 5 (This example is identical for Slave 4)

#### Start SyCon

- (A) Choose Start → Programs → SyCon System Configurator → SyCon.
- (B) Choose File → Open.
- (C) Navigate to the location where you stored the sample file and choose 610x-SAMPLE.pb.
- (D) Double-click on Slave 5.



**Note:** Your application will use other slave modules. This sample shows an example of I/O data movement for presentation purposes. Please refer to the *6104-WA-PDPM 6105-WA-PDPS Setup Guide* for more information on how to set up your slave units.

This example identifies Slave 4 and 5 input words as 1111 and 2222 and output words 3333 and 4444. This is illustrated to show how the data is mapped to the Primary Master.

1 Word Output → 2222 →  
1 Word Input → 4444 →

**Slave Configuration**

General  
 Device: PROFIBUS DP-32 MODULE      Station address: 5  
 Description: Slave\_5  
 Activate device in actual configuration  
 Enable watchdog control      GSD file: PRLX\_1007.GSD

Max. length of in-/output data: 4 Byte  
 Max. length of input data: 2 Byte  
 Max. length of output data: 2 Byte  
 Max. number of modules: 1

Module	Inputs	Outputs	In/Out	Identifier

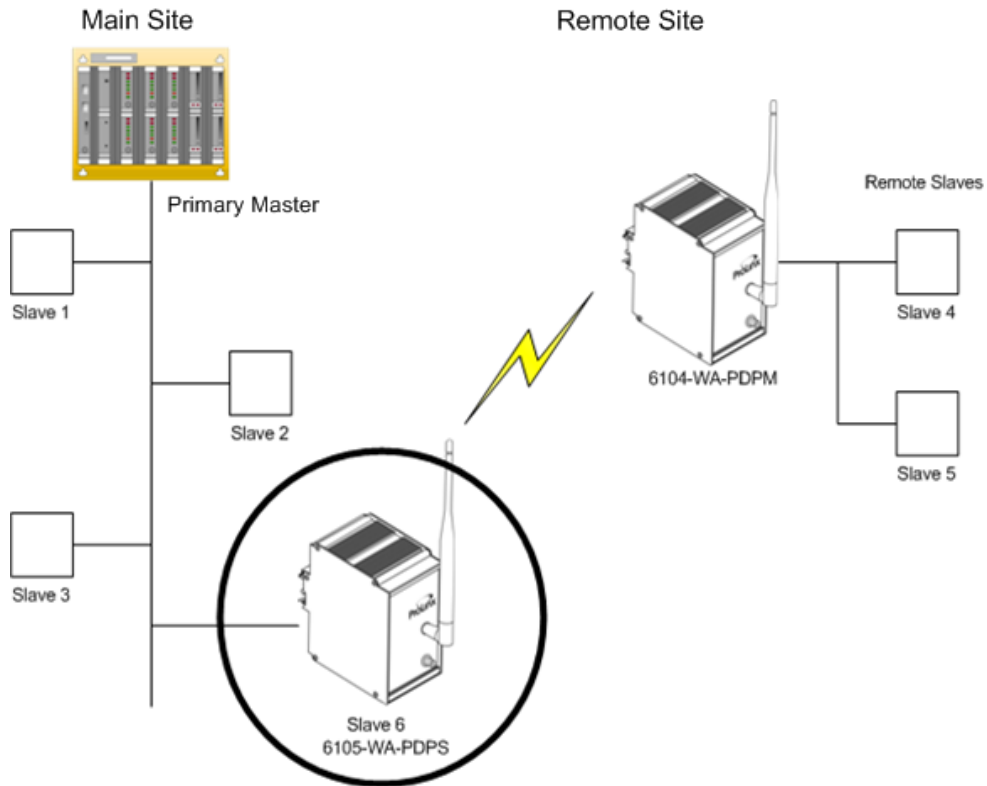
Assigned master: Station address 0  
 Master0  
 0 / Profibus-DP enhanced I

Actual slave: Station address 5  
 Slave\_5  
 5 / PROFIBUS DP-32 MOD

Slot	Idx	Module	Symbol	Type	I Addr.	I Len.	Type	O Addr.	O Len.
1	1	AB-PDP-3 Module1					QB	1	2
1	2	AB-PDP-3 Module1		IB	1	2			

Buttons: OK, Cancel, Parameter Data..., DPV1 Settings..., Append Module, Remove Module, Insert Module, Predefined Modules, Symbolic Names

## 5. Set Up the 6105-WA-PDPS Module

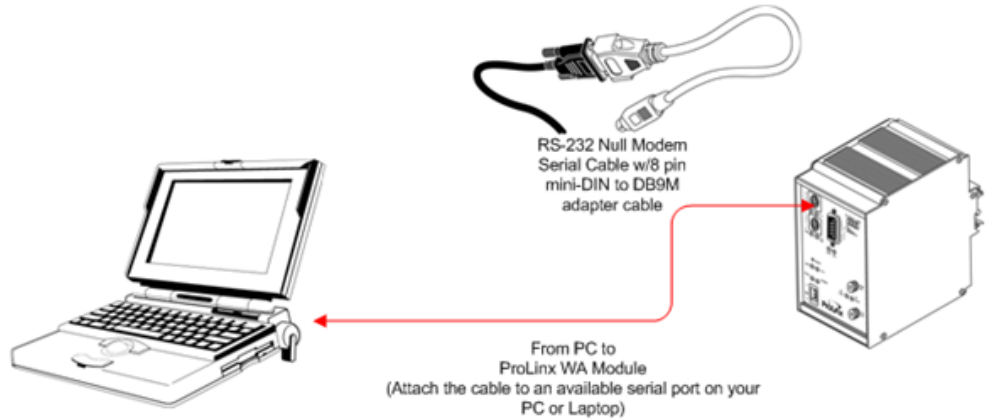


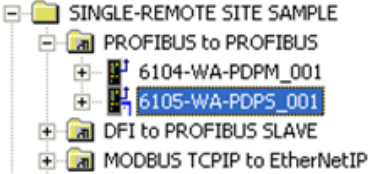
The 6105-WA-PDPS is pre-configured to communicate with the 6104-WA-PDPM. The only configuration requirement is that you set the Slave Address value to a value that does not conflict with other devices on the network. All 6105-WA-PDPS modules are set with a Slave Address value of 126. For this sample configuration, the value must be changed to 6 since it represents Slave #6 on this network.

## 5. Set Up the 6105-WA-PDPS Module (cont.)

### Change the Slave Address of the PDPS Module

- (A) Connect your Laptop or PC to the PDPS module's Debug port as shown. Make sure power is still applied to the module.

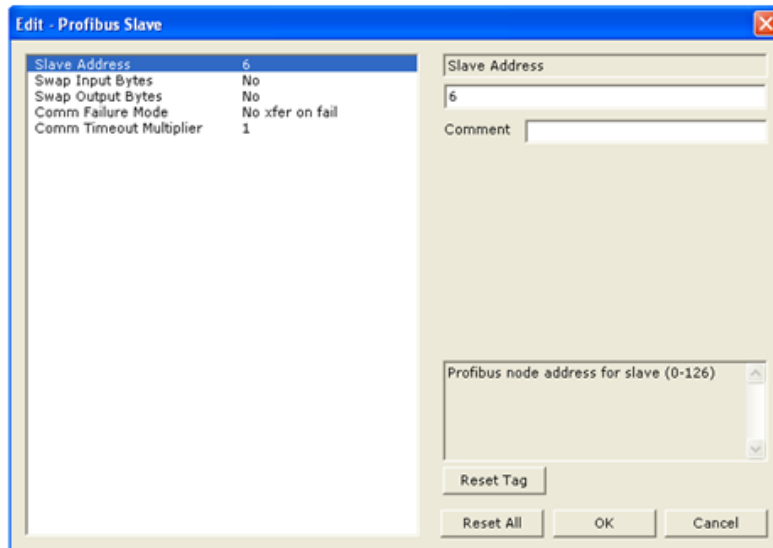


- (B) 

Expand the 6105-WA-PDPS selection.

- (C) 

Navigate to the Profibus Slave icon and double-click to open the Edit window.



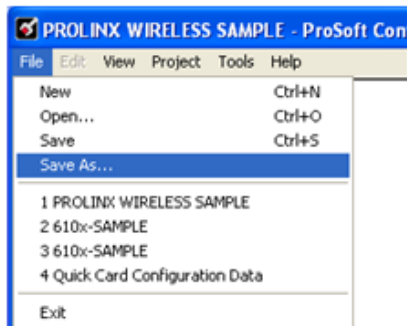
- (D) Select the Slave Address Parameter and enter the value of 6. Click OK.

**Note:** The module is shipped with the value 126 in order to prevent conflict with other nodes already on the network. For this sample application, we used address 6 since there were 5 slaves already on the network.

## 5. Set Up the 6105-WA-PDPS Module (cont.)

Save and download the files to the PDPS Module

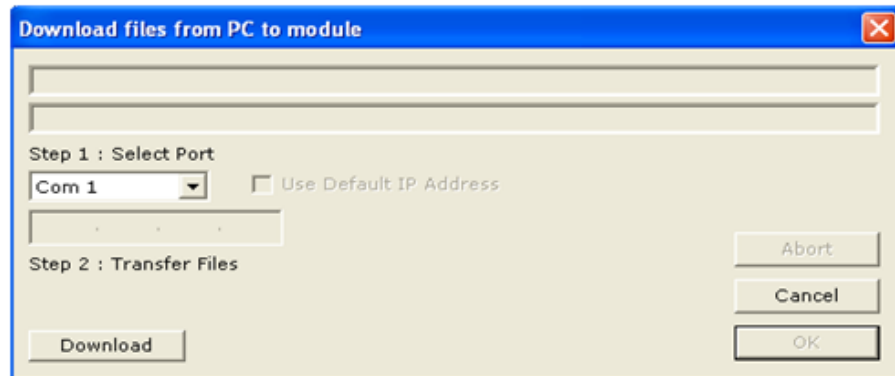
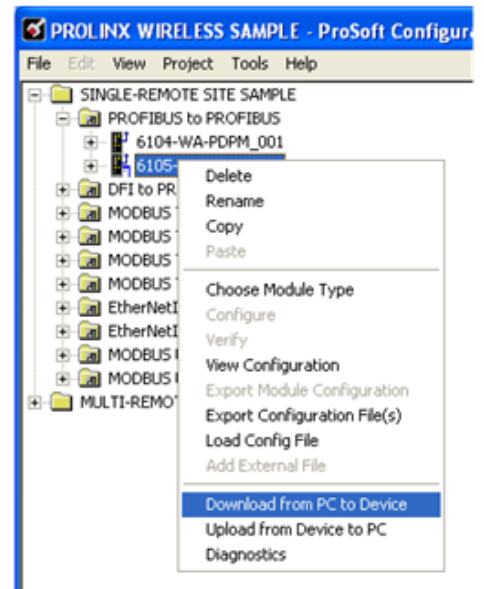
(A)



Choose File → Save As and save the file to a location on your hard drive.

(B)

Right-click on 6105-WA-PDPS and select Download from PC to Device.

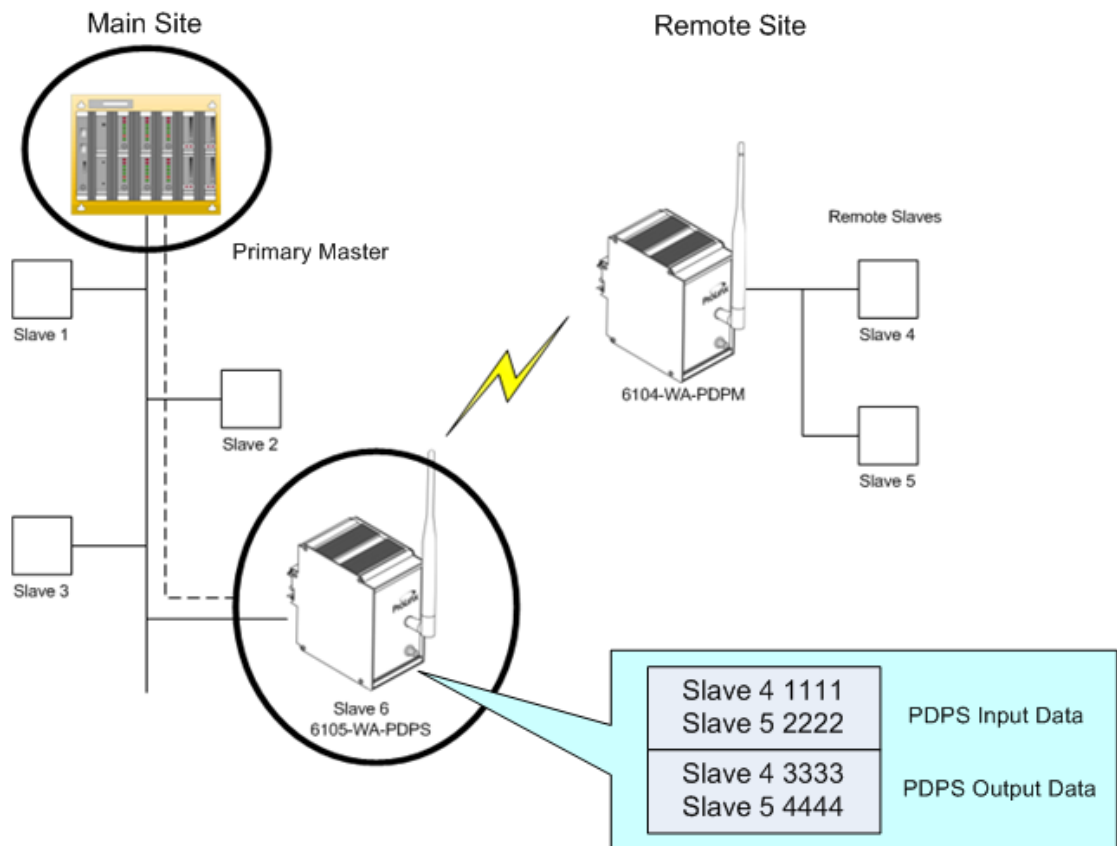


(C) Select the appropriate COM port and click the Download button.

**Note:** It may take a minute or two to download the file to the module.

(D) When the download completes, click the OK button.

## 6. Configure the PDPS in the Primary Master



The Primary Master will require communication with the 6105-WA-PDPS module. The PDPS configuration shown establishes an input of two words and an output of two words (one in/one out for Slave 4 and Slave 5).

In order for the Primary Master to communicate with remote slaves (Slaves 4 and 5), the PDPS must be configured using the Primary Master configuration software.

You must now use your Primary Master configuration software to set up the PDPS module. The following sample provides a preview of how to set up the PDPS input/output words using configuration software designed for that purpose.



## 6. Configure the PDPS in the Primary Master (cont.)

Slave: (6) ProLinx Profibus Slav..	Device path: PROFIBUS DP\Gateway\ProLinx Comm Gateways Inc.\ProLin	Slot	CFG data	Order number/ designation	Input address	Output
		0	0x51	2 Words Input	0..3	
		1	0x61	2 Words Output		0..3
		2				
		3				
		4				
		5				
		6				
		7				
		<				>

2 Words Input = Slave 4 (1111) and Slave 5 (2222)  
2 Words Output = Slave 4 (3333) and Slave 5 (4444)

### Success!

At this point, you have...

- Verified that the 6104-WA-PDPM and the 6105-WA-PDPS are communicating and exchanging data
- Installed the software and copied all files you'll need
- Added the 6105-WA-PDPS as a PROFIBUS network node
- Configured the 6105-WA-PDPS for a 3rd Party Primary Master

The Quick Start provided you with a pre-configured sample PROFIBUS wireless network out of the box. You can now use this same sample application and modify it to meet the needs of your application. The 6104-WA-PDPM/6105-WA-PDPS Setup Guide provides step-by-step information on how the sample configuration was built and how you can modify it.

