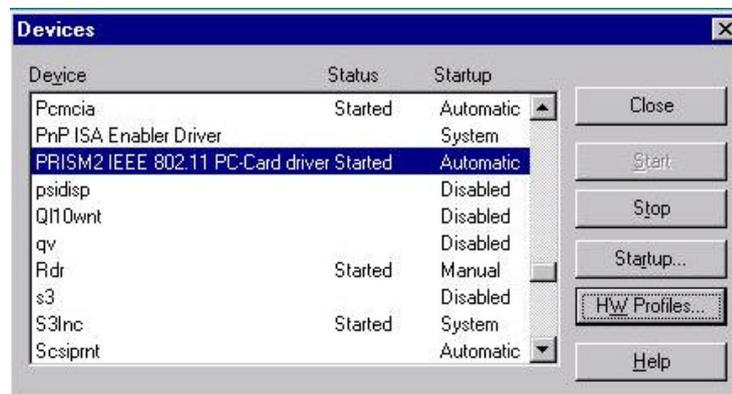


- You will be prompted to restart your computer, click yes to complete the installation



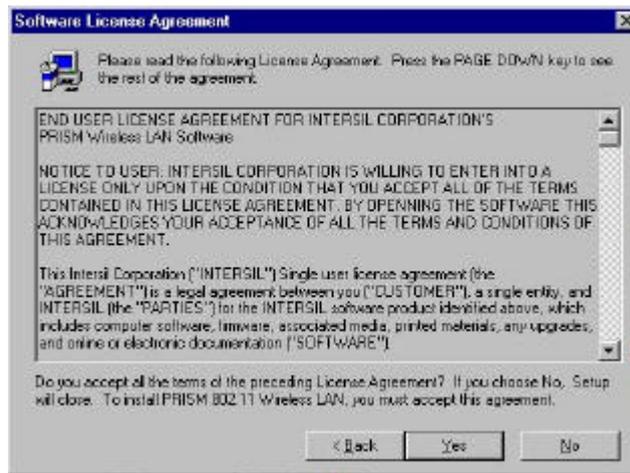
- Upon restart, open the "Devices" menu from the "Control Panel", to confirm that the driver installation was successful. Your adapters driver should now be listed in the "Devices" menu.



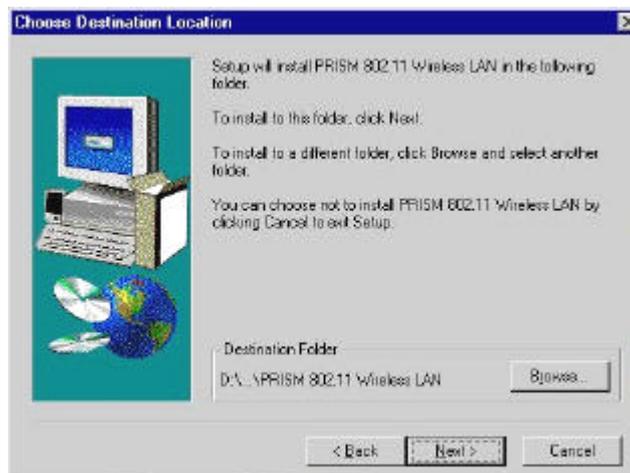
# Chapter 4 Installing & Navigating the PRISM Configuration Utility

## 4-1 PRISM CONFIGURATION UTILITY - INSTALLATION

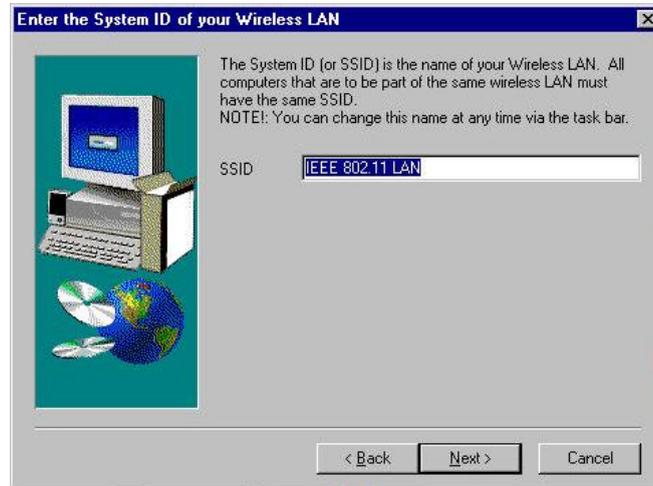
1. Insert the PRISM Network Configuration Utility disk into an available floppy disk drive. From the "Run" window type "A:\Utility\Setup.exe" (where "A" represents a floppy disk drive).
2. Click "Yes" to accept the License Agreement and continue with the installation.



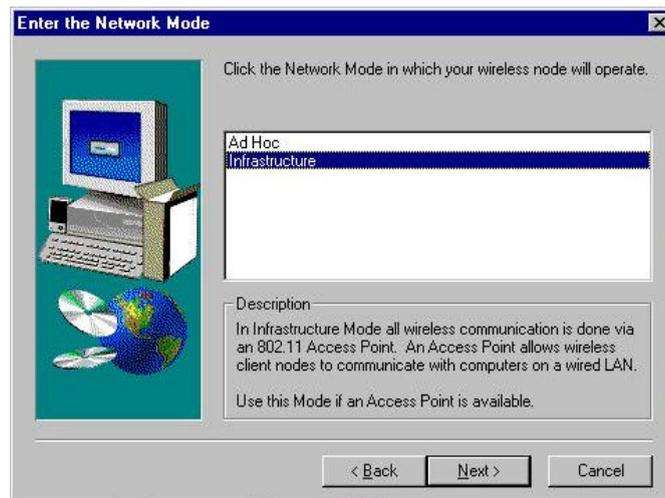
3. Click "Next".



4. Enter the System ID click "Next".



5. Choose the Network Mode, click "Next"



6. Browse to install the utility in another folder, or confirm the installation and click "Next".



7. You will be prompted to insert Disk 2. Insert the disk and click "Browse". Double-click the "Setup" folder; double-click again on the "setup" icon. When the path has been automatically entered in the "Setup Needs The Next Disk" dialog, click "OK".



8. After installation is complete, you will be prompted to restart your computer. Check "Yes" and click "Finish" to complete the installation and begin navigating the PRISM Configuration Utility.



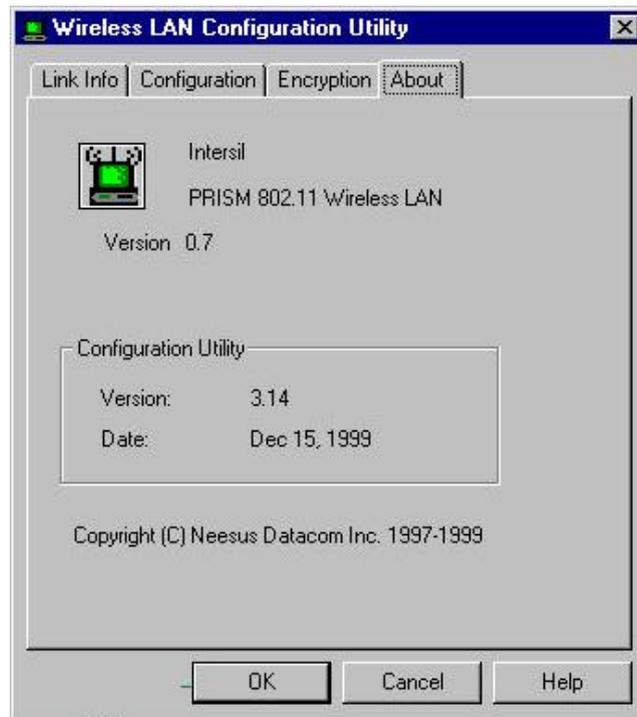
## 4-2 PRISM CONFIGURATION UTILITY- NAVIGATION

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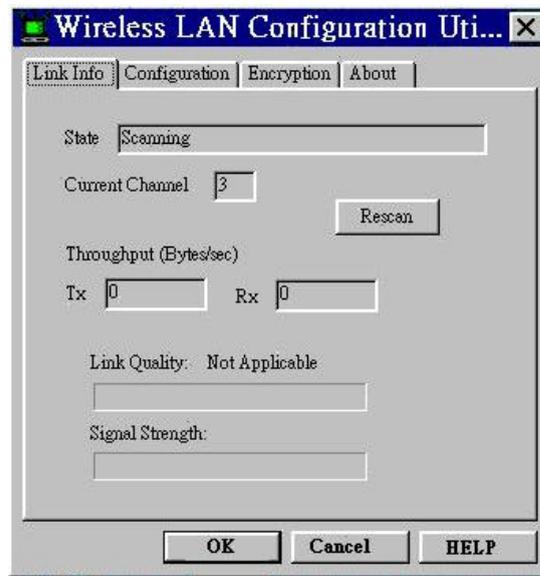
The following section describes and defines the various functions of the PRISM Network Configuration Utility. This utility provides quick access to all adapter settings.

**PRISM Quick-Launch Icon:** After installation is complete, a PRISM utility icon will appear in the "Quick-Launch" menu in the lower right hand corner of the screen, near the clock.

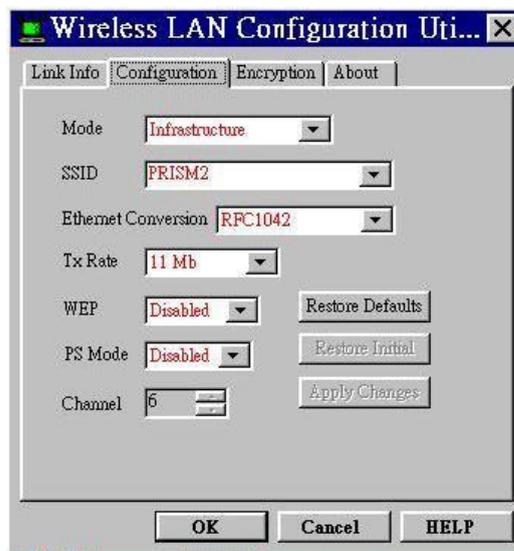
**The PRISM Configuration Utility:** Double clicking the PRISM icon in the Quick Launch bar will open the PRISM Configuration Utility main menu, providing quick access to all adapter settings. The following image shows the PRISM Configuration Utility with the "About" tab selected, here you will find Version, Copyright and Manufacturer information.



**Link Info:** The Link Info menu provides information about the current link between the adapter and the base station.



**Configuration:** Selecting this tab opens the “Configuration” menu. Here you will find options for configuring your adapter.



### Description of Settings

Following is an explanation of each adapter setting presented by the “Configuration” menu.

**Mode:** The Mode setting determines the architecture of your wireless LAN. Choose Ad-Hoc or Infrastructure Mode depending on your network type. A brief explanation of each mode follows:

- **Ad-Hoc:** This mode is used for a simple peer-to-peer network. This type of network allows the sharing of local resources only between wireless clients without a wireless Access Point (AP).

- **Infrastructure:** This mode allows a wireless LAN to be integrated into an existing wired network through an AP. Infrastructure type networks also permit roaming between Access Points while maintaining connection to all network resources. Infrastructure mode provides additional features, such as WEP security, power saving and extended range.

**SSID:** An acronym for Service Set Identifier, SSID is the unique name shared among all clients and Access Points in a wireless network. The SSID must be identical for all clients or Access Points participating in the same network. The SSID is case sensitive and must not exceed 30 characters.

**Ethernet Conversion:** The RFC1042 mode is the 802.11 standard conversion method and is selected by default. If compatibility with older wireless LAN systems is necessary select another conversion implementation from the **Ethernet Conversion drop** down list.

**TX Rate:** The transmit rate or TX Rate selects the allowable transfer rates of the wireless client. To optimize performance and range, the TX Rate should be set to Fully Automatic, which will automatically adjust the transfer speed for best performance and longest range.

*Note: the AP must support The TX rate setting. If the AP does not support the TX rate, undesired results may occur.*

**WEP:** An acronym for Wired Equivalent Privacy, WEP is an encryption scheme used to protect your wireless data communications. WEP uses a combination of 40-bit keys to provide access control to your network and encryption security for every data transmission. To decode a data transmission, each wireless client on the network must use an identical 40-bit key.

**NOTE:** This feature is only available in Infrastructure Mode and must also be enabled on the Access Point. Select the WEP tab to enable or disable this feature.

**PS Mode:** Power Saving Mode enables or disables the power saving features of your wireless adapter. When enabled on a laptop, the power saving mode can reduce power consumption by the wireless card and extend the battery life of your laptop. This setting is only implemented in a network operating in Infrastructure mode.

- **Changing the PS mode:** The PS Mode on your adapter is set to "Disabled" by default. To change the setting, select "Enabled" from the drop-down list, click "OK" and wait a few seconds. The screen will then be updated and show the current Connection Status, Link Quality and Signal Strength.

**Channel:** This setting specifies the default 802.11 channels used by the Wireless LAN communication. In an Infrastructure type network without an Access Point active on the default channel, clients will scan through all available channels searching for a network with matching SSID.

- **Changing the Channel:** Changing the channel is only effective in Ad-Hoc networks. Networks operating in Infrastructure mode automatically scan for a channel. The following table presents the operational channel frequency for several countries.

## Regulatory Channel Frequency

Channel	Frequency (MHZ)	FCC	Canada	ETSI	France	Spain	Japan
1	2412	▼	▼	▼			▼
2	2417	▼	▼	▼			▼
3	2422	▼	▼	▼			▼
4	2427	▼	▼	▼			▼
5	2432	▼	▼	▼			▼
6	2437	▼	▼	▼			▼
7	2442	▼	▼	▼			▼
8	2447	▼	▼	▼			▼
9	2452	▼	▼	▼			▼
10	2457	▼	▼	▼	▼	▼	▼
11	2462	▼	▼	▼	▼	▼	▼
12	2467			▼		▼	▼
13	2472			▼		▼	▼
14	2484						▼

**Encryption:** Selecting the Encryption tab allows you to create new WEP keys.



The 40-bit WEP keys can be generated from a user-defined pass phrase (any text string with a maximum of 32 characters). To generate encryption keys for each client communicating in the wireless network, complete the following steps:

1. Type the exact same case sensitive text in the Pass phrase entry field for each client.
2. Click, "Generate" to create the encryption keys. The Pass phrase generates four (4) unique keys.
3. Select the same Default Key in the drop-down box for each client. This is the key the clients will use to encrypt data.
4. You must click "Write" to store the information in the registry.
5. Select the "Configuration" tab and enable WEP by choosing "Mandatory".
6. Click "Apply Changes".
7. Click "OK" to close the dialog.

## Appendix A Troubleshooting

### Problem Solving

*My computer does not recognize the WN3301.*

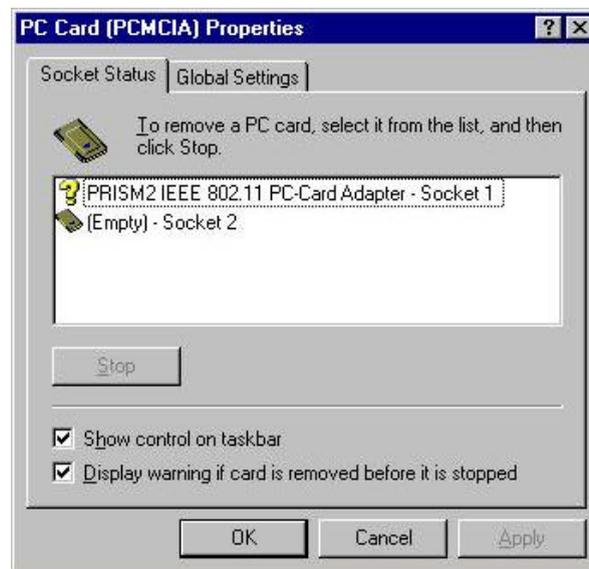
Probable Solution:

- The WN3301 is not properly inserted into the PCMCIA slot.
- Ensure that the WN3301 has been inserted into an available PCMCIA slot.

*The WN3301 does not work properly.*

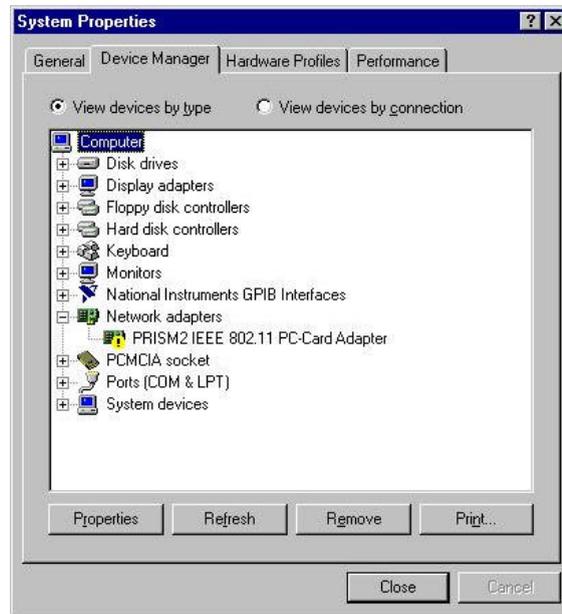
Probable Solution:

- Insert the PCMCIA adapter into Notebook s slot again. A beep should be heard if the adapter is properly inserted.
- Check the I/O cable that connects the RF module and the PCMCIA adapter. The power LED indicator will be active if the cable is properly connected.
- For non-Windows 95/98 environments, ensure that a PCMCIA card service driver is installed in your computer.
- 1) Click on the Control Panel and then on PC-Card. Check whether it has PCMCIA card in one of the sockets or not. If you find PRISM2 IEEE 802.11 PC-Card Adapter in one of the sockets, it means the card is detected properly. If you see the yellow sign of Question-mark (?), the resources are conflicting.



- 2) Right click on " My Computer" and the select Properties. Select the device Manager and click on the Network Adapter. You will find PRISM2 IEEE 802.11 PC-Card Adapter if it is installed successfully. If you see the Yellow sign the resources are conflicting. Click

on PCMCIA card and then on PCMCIA Card service, you can see the status of PCMCIA card. If there are yellow sign either on adapter or PCMCIA card, please check followings.



- 2-1) Check if your Notebook supports 3.3V card.
- 2-2) Check if your Notebook has a free IRQ
- 2-3) Check that you have inserted the right card and have installed the proper driver.

If the WN3301 does not function after attempting the above steps, remove the PCMCIA adapter, and do the following:

- From the run window enter, c:\windows\system, locate and delete the cw10.sys file
- Open the "Control Panel" double-click "System" and delete PRISM2 IEEE 802.11 PC-card Adapter.
- Restart the PC and repeat the hardware and software installation steps outlined in Chapters 3 and 4.

***The WN3301 station cannot communicate with other computers linked via Ethernet in the Infrastructure configuration.***

Probable Solution:

- Ensure that the WN3301 with which the station is associated is powered on.
- Confirm the station is configured with the same operating radio channel as the WN3301. If the IDs are different, change the WN3301 and all the stations within the BSS to another radio channel.
- Ensure that the station is configured with the same security options as the WN3301, and can be turned off and on with the same security key.
- Confirm that the BSS ID is the same as the WN3301 for a roaming disabled station. Alternately confirm that the ESS ID is the same as the WN3301 for a roaming enabled station.

## Appendix B Glossary

**Access Point** - An internetworking device that seamlessly connects wired and wireless networks together.

**Ad-Hoc** - An Ad-Hoc wireless LAN is a group of computers each with wireless adapters, connected as an independent wireless LAN.

**Backbone** - The core infrastructure of a network, the portion of the network that transports information from one central location to another central location. The information is then off-loaded onto a local system.

**Base Station** - In mobile telecommunication, a base station is the central radio transmitter/ receiver that maintains communication with the mobile radiotelephone sets within range. In cellular and personal communications applications, each cell or micro cell has its own base station; each base station in turn is interconnected with other cells' base.

**BSS** - Stands for "Basic Service Set." An Access Point associated with several wireless stations.

**ESS** - Stands for "Extended Service Set." More than one BSS can be configured as an Extended Service Set. An ESS is basically a roaming domain.

**Ethernet** - A popular local area data communications network, originally developed by Xerox Corp., which accepts transmission from computers and terminals. Ethernet operates on 10 Mbps base band transmission over shielded coaxial cable or over shielded twisted pair telephone wire.

**Infrastructure** - An integrated wireless and wired LAN is called an Infrastructure configuration.

**PCMCIA** - Personal Computer Memory Card International Association, which develops standards for PC cards, formerly known as PCMCIA cards, are available in three "types" which are about the same length and width as credit cards, but range in thickness from 3.3 mm (Type I) to 5.0 mm (Type II) to 10.5 mm (Type III). These cards can be used for many functions, including memory storage, as landline modems and as wireless LAN.

**Roaming** - A function that allows one to travel with a mobile end system (wireless LAN mobile station, for example) through the territory of a domain (an ESS, for example) while continuously connecting to the infrastructure.

**RTS Threshold** - Transmitters contending for the medium may not hear each other. RTS/CTS mechanism can solve this "Hidden Node Problem".

**Product Specifications for WN3301F :**

<b>Radio:</b>	<b>Complies with IEEE 802.11</b>
<b>Frequency Band:</b>	<b>2400 ~ 2483.5MHz ( for US, Canada, and ETSI 2400 ~ 2497MHz (for Japan)</b>
<b>Modulation TYPE:</b>	<b>CCK,BPSK,QPSK</b>
<b>Operating Channels:</b>	<b>IEEE 802.11 compliant 11 channels (US, Canada) 13 channels (ETSI) 14 channels (Japan)</b>
<b>Radio Technology:</b>	<b>Direct Sequence Spread Spectrum</b>
<b>Data Rate:</b>	<b>1 / 2 / 5.5 / 11 Mbps</b>
<b>Output Power:</b>	<b>&gt; +15dBm</b>
<b>Receive sensitivity:</b>	<b>-80dBm for 11Mbps, 8%@BER 10E-5 -83dBm for 5.5Mbps, 8%@BER 10E-5 -88dBm for 2Mbps, 8%@BER 10E-5 -90dBm for 1Mbps, 8%@BER 10E-5</b>
<b>Antenna Type:</b>	<b>De-attached PCB patch diversity antenna or MMCX connector for external antenna</b>
<b>Current</b>	
<b>Consumption :</b>	<b>3.3 V , Tx mode 450 m A (Max.) ; Rx mode 320 m A (Max.);</b>
<b>Package :</b>	<b>PCMCIA Type II</b>
<b>Certification:</b>	<b>FCC Part 15 ETSI 300.328 ARIB STD33 &amp; T66</b>
<b>Driver :</b>	<b>Windows 95/98/98SE/Me Windows NT/2000</b>

