Introduction

The EAZIX EZWFDI01 is a wireless LAN adapter with PCI interface for Desktop computers. It conforms to the IEEE 802.11g protocol and is backward-compatible with any installed 802.11b WLAN access point. It operates at 2.4 GHz and provides data rates of up to 54 Mbps for today's high-bandwidth applications. The EZWFDI01 Network Interface Card (NIC) is based on the Globespan Virata PRISM Lance chipset.

Features:

- IEEE 802.11b/g compliant
- PCI host interface
- Frequency range: 2412 MHz to 2484 MHz
- 64-, 128-bit WEP encryptions
- Data rates: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps
- Modulation techniques: OFDM with BPSK, QPSK, 16QAM, 64QAM; DBPSK, DQPSK, CCK
- Driver support for Microsoft Windows 98SE/ME/NT4/2000/XP

1 Installation Procedure

1.1 Installing the card into the host computer

1.1.1 Turn the host computer off, insert the WLAN card into the PCI slot, turn on the computer and start the Windows operating system (Windows XP preferred).

1.2 Installing the software drivers

1.2.1 When Windows detects new hardware and asks for drivers, point to the directory where the Globespan Virata (GSV) driver is located (*SingleSource_Windows_Driver_Package_2.1.15.0*) and look for the appropriate driver.

1.2.2 Run *setup.exe* within the *PRISM_Basic_Options_Package_1.0.9.83* folder to install the utility and settings window.

1.2.3 Restart Windows.

2 Using the Settings window

2.1 The device should appear in the Device Manager list (Figure 2.1) when the card is inserted

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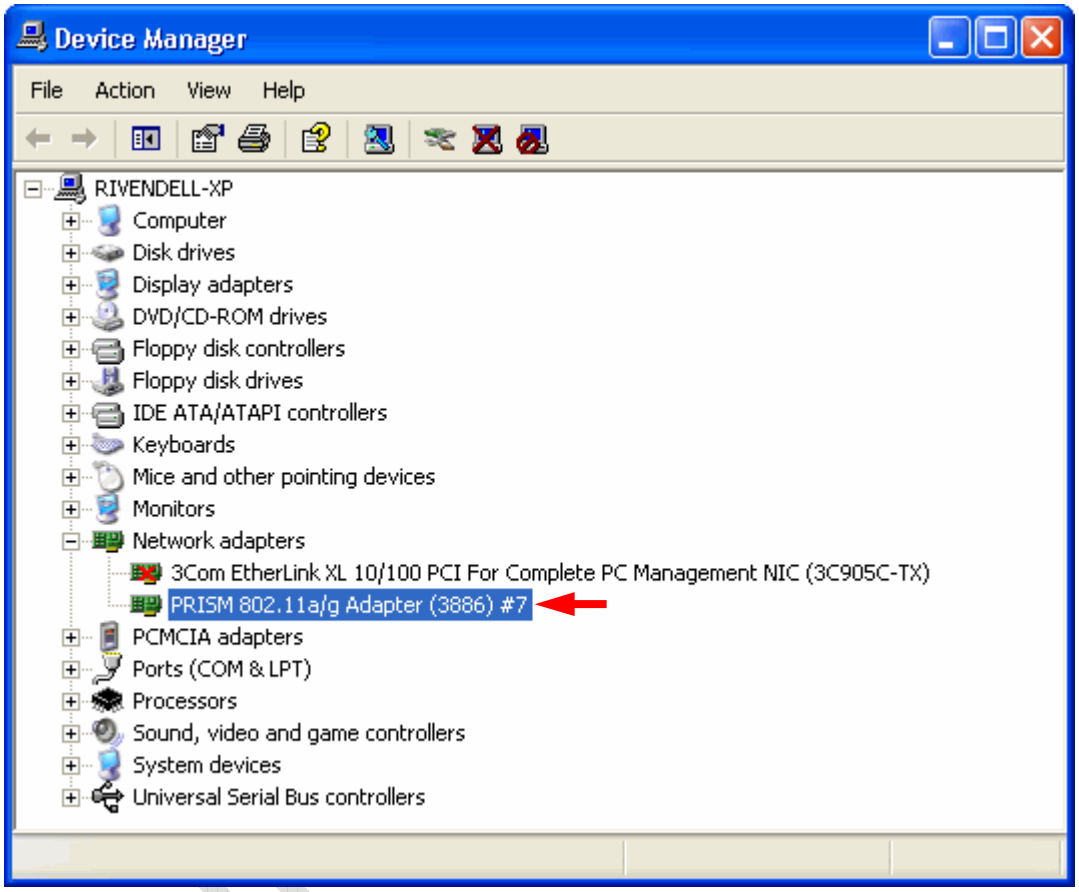

Figure 2.1 Device Manager

2.2 The GSV WLAN icon will appear in the system tray at the bottom right of the screen (Figure 2.2)

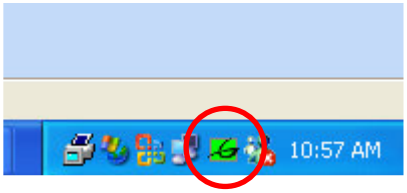

Figure 2.2 GSV icon

Notes:
The device name in the Device Manager list may not exactly appear as in Figure 2.1. The number after *PRISM 802.11a/g Adapter (3886) #* depends on the association of the driver with the device.

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The GSV icon may not immediately appear as in Figure 2.2. It may show up as colored red or with a red X over it, if the device and software are not yet properly configured.

Reminders:
The Network Connection icon will appear in the system tray at the bottom right of the screen if the "Show icon in notification area when connected" option is checked in the General tab of the Wireless Network Connection Properties window (Figure 2.3)

(Start -> Control Panel -> Network Connections -> Wireless Network Connection -> Properties -> General tab)

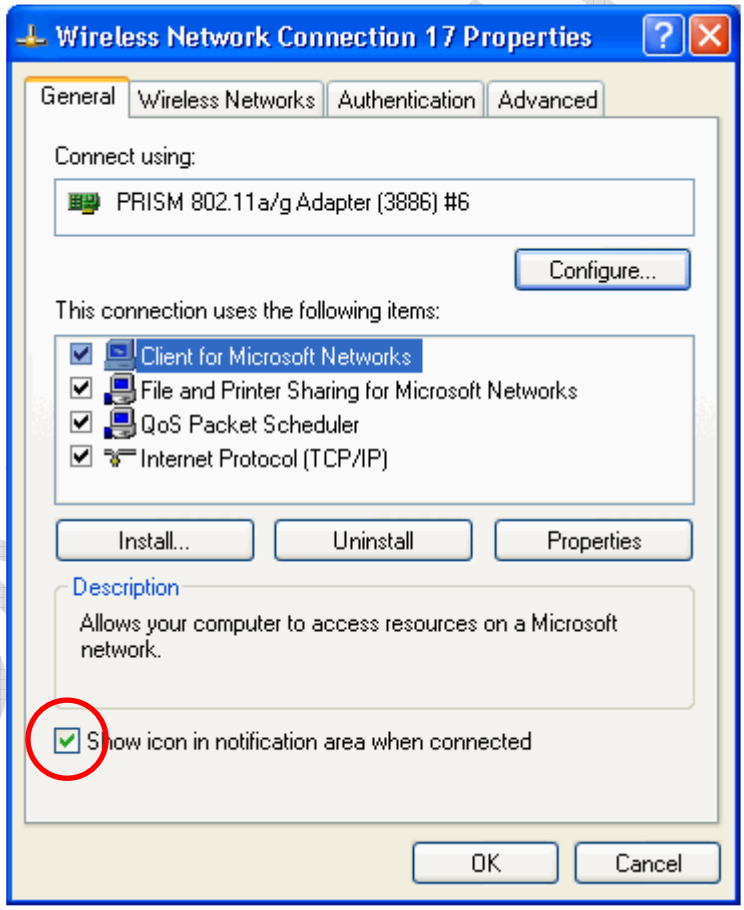

Figure 2.3

The complete tabs of the GSV WLAN settings window will be shown if the "Use Windows to configure my wireless network settings" option is unchecked in the Wireless Networks tab of the Wireless Network Connection Properties window (Figure 2.4)

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(Network Connection icon -> Properties -> Wireless Networks tab)

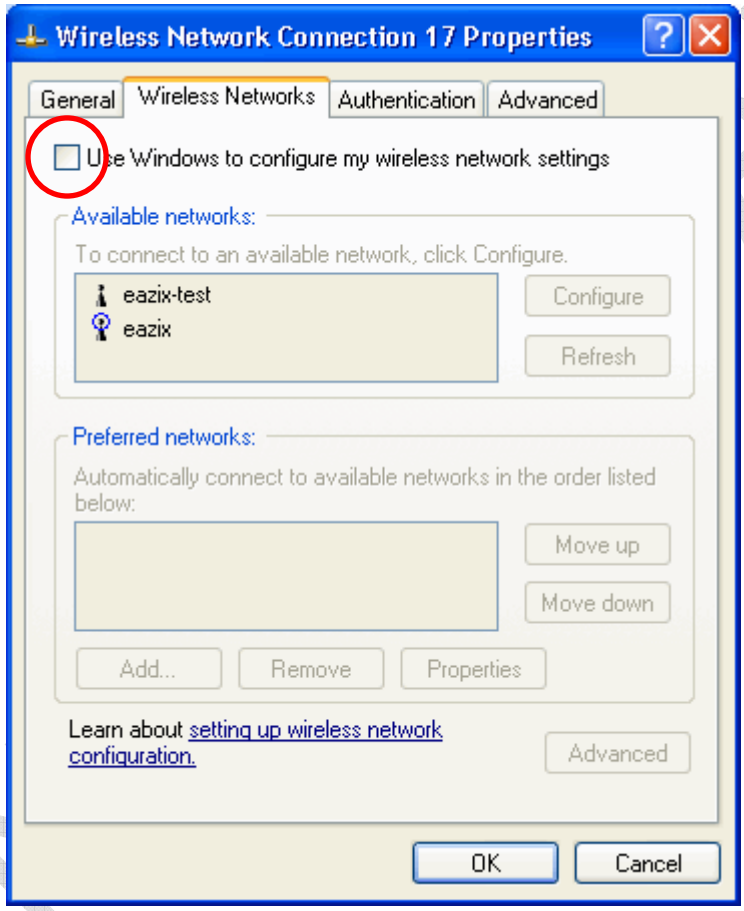

Figure 2.4

2.3 Double-click the GSV icon to open the WLAN settings window (Figure 2.5)

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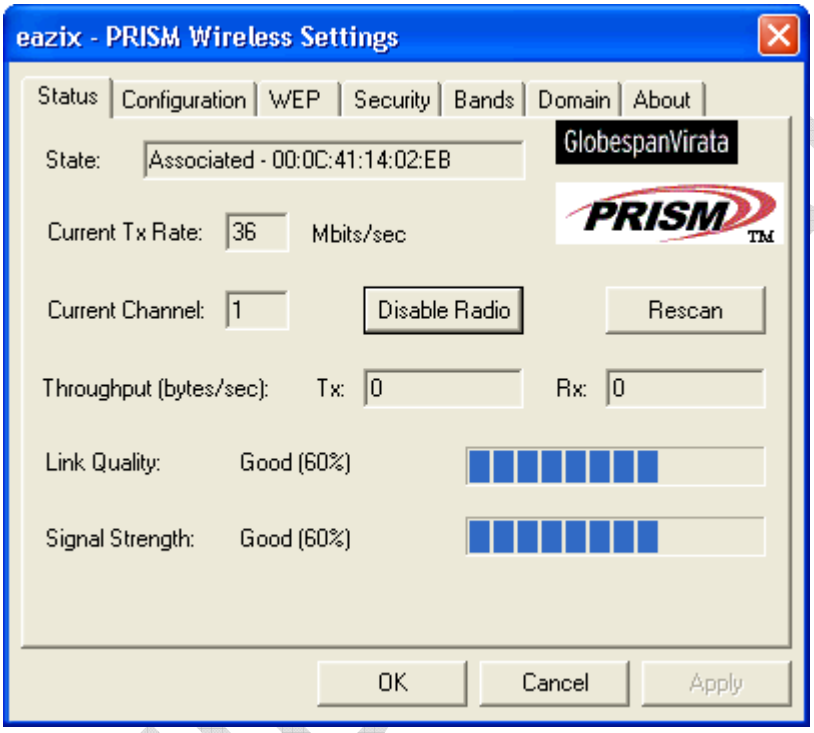

Figure 2.5 WLAN Settings window

2.4 Click on the Status tab to display the connection status: State, Current Tx Rate, Current Channel, Tx and Rx Throughput, Link Quality and Signal Strength (Figure 2.5)

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2.5 Click on the Configuration tab and place the required settings (Figure 2.6)

2.5.1 Type the Network Name

2.5.2 Select the Network Type: Access Point or Peer-to-Peer

2.5.3 Save the Profile for later use

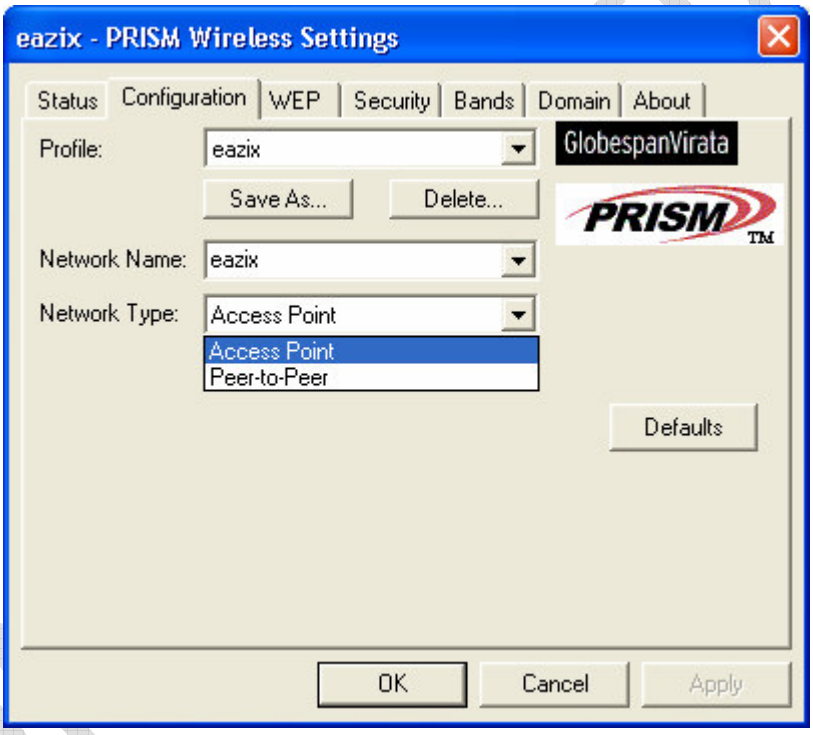

Figure 2.6 Configuration tab

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2.6 Click on the WEP tab and fill out with the necessary settings (Figure 2.7)

2.6.1 Select the required Encryption (WEP security) type: Disabled, 64 bit, 128 bit

2.6.2 Create encryption Keys, if needed

2.6.3 Select which WEP Key to use when trying to connect

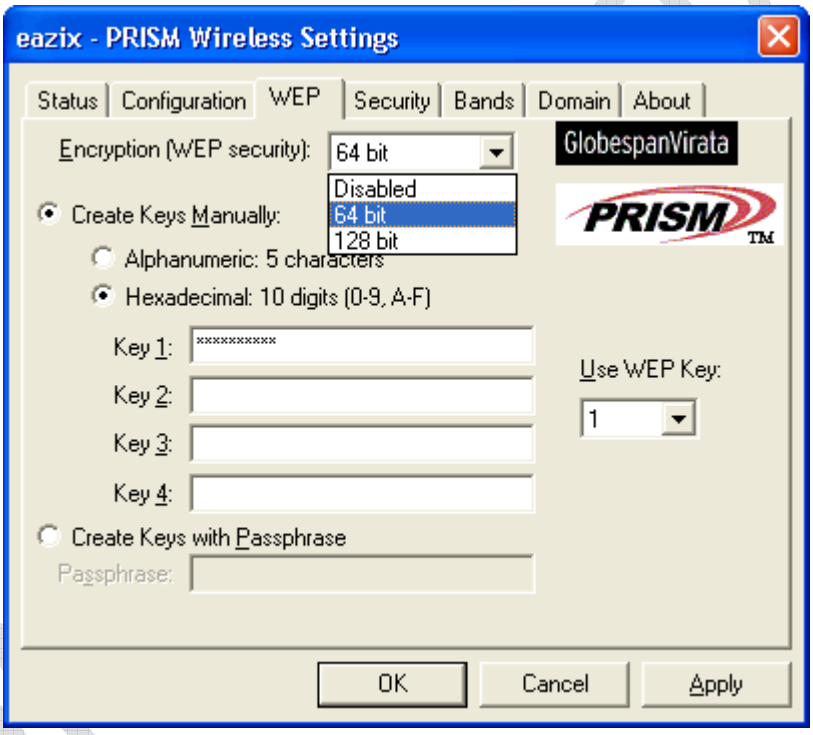

Figure 2.7 WEP tab

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2.7 Click on the Security tab (Figure 2.8)

2.7.1 Select the Authentication Type

2.7.2 Select the Authentication Mode: Open, Shared, AutoSwitch

2.7.3 Tick Allow Mixed Cells, as needed

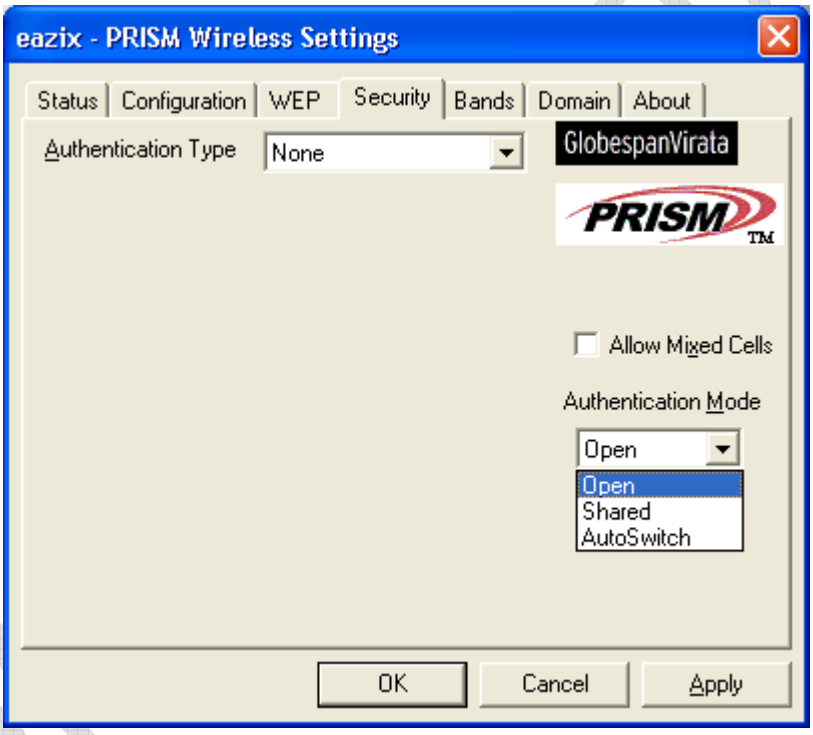

Figure 2.8 Security tab

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2.8 Click on the Bands tab (Figure 2.9)

2.8.1 Select the Band: Any, 2.4 GHz only, 5 GHz only

2.8.2 Select the Band Preference: Any, 2.4 GHz over 5, 5 GHz over 2.4

2.8.3 Select the IBSS Channel: Channels 1-11 (2.4 GHz), 36-165 (5 GHz)

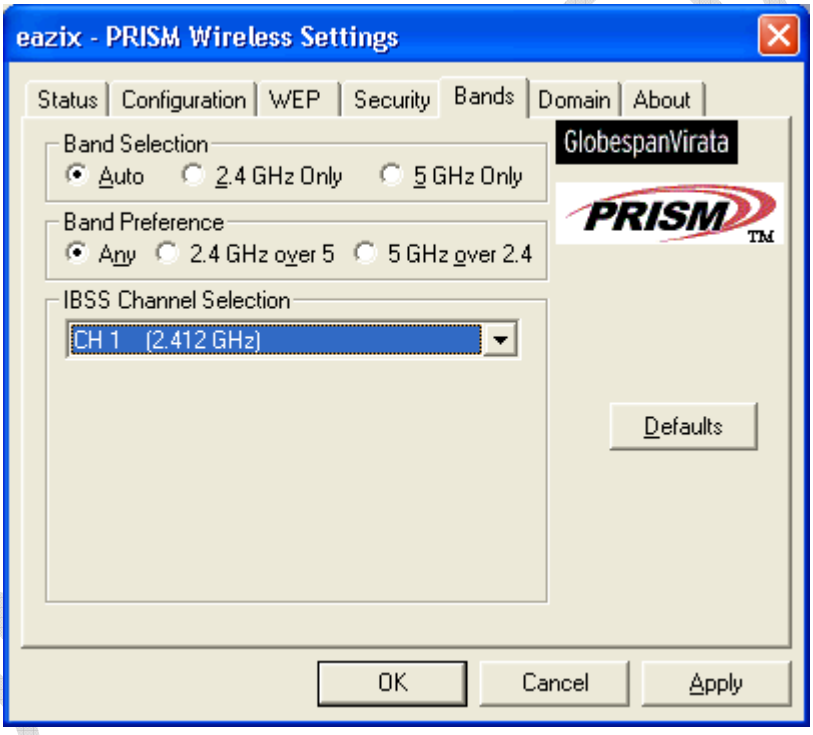

Figure 2.9 Bands tab

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2.9 Click on the Domain tab (Figure 2.10)

2.9.1 Select the 802.11d support: None, Strict, Flexible

2.9.2 Choose the Countries/Domains

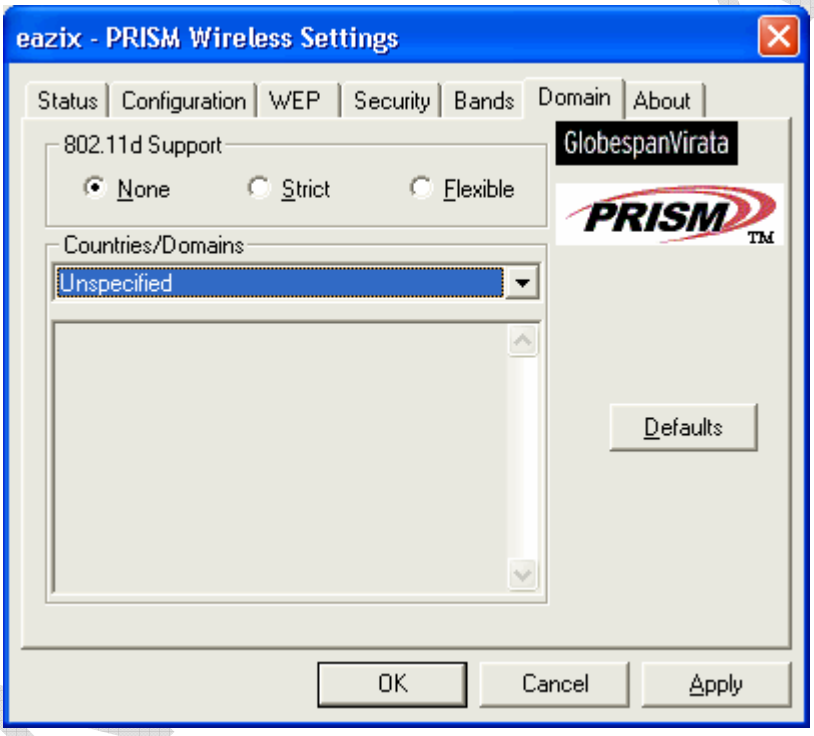

Figure 2.10 Domain tab

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2.10 Click on the About tab to display the details of the Network Driver, Configuration Utility and NIC Firmware (Figure 2.11)

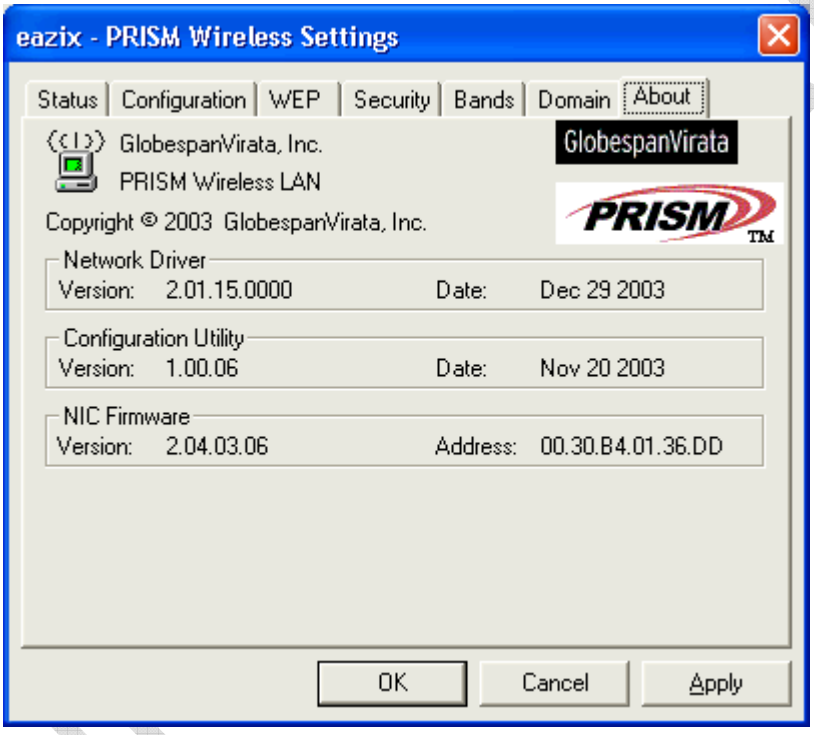

Figure 2.11 About tab

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3 Connecting the WLAN Card to the Access Point

3.1 GSV Utility

3.1.1 Click on the Network Connection icon in the system tray at the bottom right of the screen (Figure 3.1)

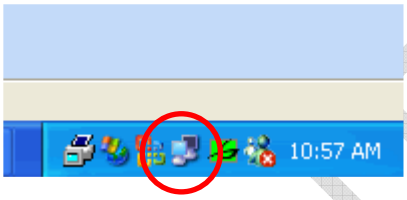

Figure 3.1 Network Connection icon

3.1.2 Click on the Properties button

3.1.3 Click on the Wireless Networks tab

3.1.4 Uncheck the “Use Windows to configure my wireless network settings” option (Figure 3.2)

3.1.5 Click OK

3.1.6 Double-click on the GSV icon in the system tray

3.1.7 Click on the Configuration tab

3.1.8 Fill out the Network Name

3.1.9 Select Access Point on the Network Type

3.1.10 Click on the WEP tab if the network requires authentication. Select the Encryption type. Type in the WEP key(s). Choose which key to use.

3.1.11 Click Apply or OK

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Notes:
The GSV icon is colored green if there is a proper wireless connection between the card and the Access Point.

If the GSV icon is colored green with a red X over it (Figure 3.3), then a connection exists but there is a problem in authentication (wrong WEP key, if it is required).

Figure 3.3

If the GSV icon is colored red (Figure 3.4), then a link cannot be established between the WLAN card and the Access Point.

Figure 3.4

3.2 Windows Utility

3.2.1 Click on the Network Connection icon in the system tray

3.2.2 Click on the Properties button.

3.2.3 Click on the the Wireless Networks tab

3.2.4 Check the “Use Windows to configure my wireless network settings” option

3.2.5 Click on the Advanced button.

3.2.6 Choose the “Any available network (access point preferred)” or the “Access Point (infrastructure) networks only” option (Figure 3.5).

3.2.7 Press Close

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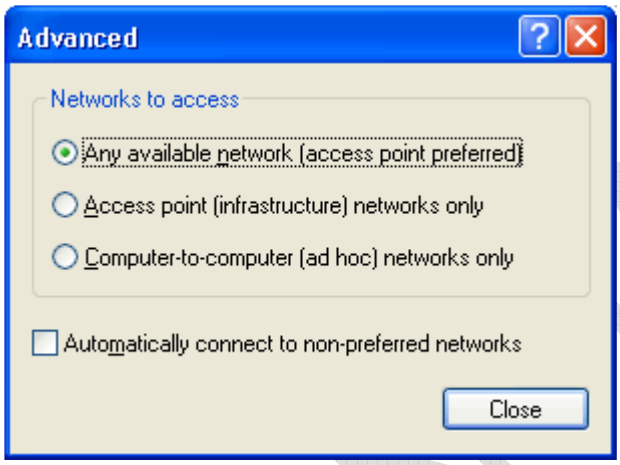

Figure 3.5 Advanced options

3.2.8 Add an Access Point to the Preferred networks. Select from the Available Networks list

3.2.9 Fill out the Network Name (SSID) and check the appropriate options (Figure 3.6). Type the Network Key, if required

3.2.10 Click OK

3.2.11 Add as many Access Points as applicable

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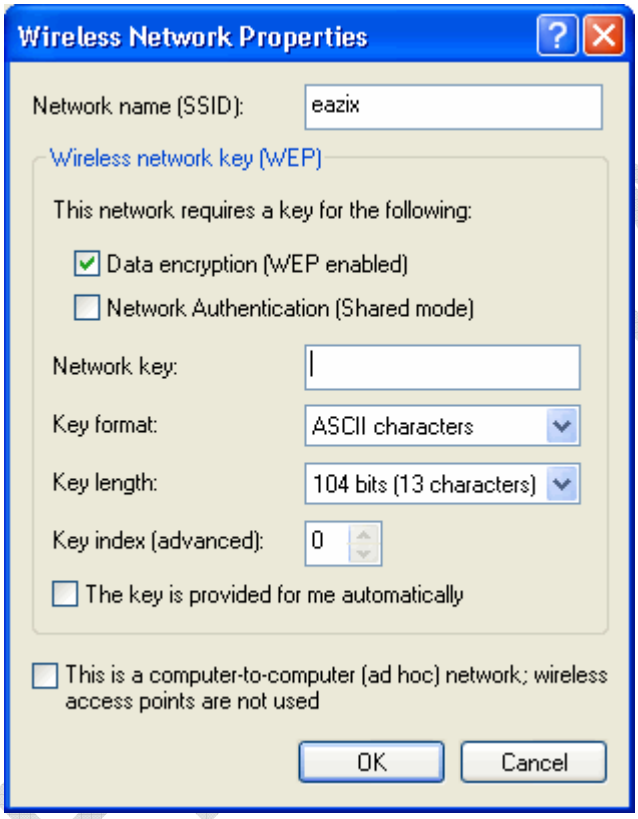

Figure 3.6 Wireless Network Properties

3.2.12 Move the items in the Preferred Networks list up or down. Automatic connection will be made in top-to-bottom order

3.2.13 Click OK

3.2.14 Right-click on the Network Connection icon in the system tray. Select the "View Available Networks" option

3.2.15 Choose an Access Point from the Available Networks list (Figure 3.7)

3.2.16 Type the Network Key, if necessary

3.2.17 Press Connect

Note: Click on the Advanced button to go to the Wireless Networks tab directly.

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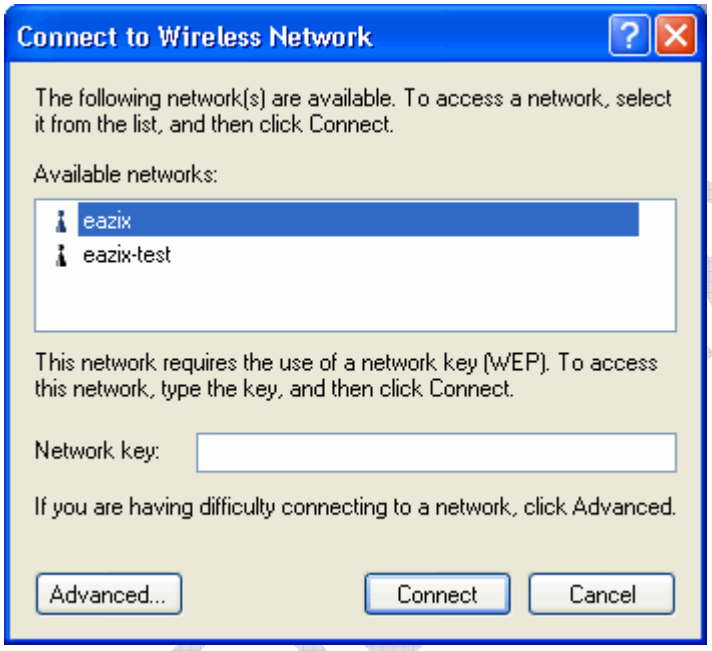

Figure 3.7 List of available networks

Notes:
The Network Connection icon is blinking (flashing, Figure 3.8) if there is a proper wireless connection between the card and the Access Point.

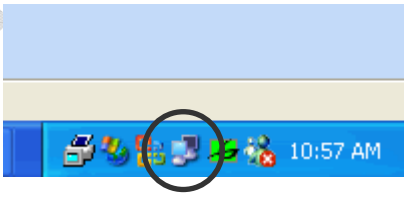

Figure 3.8

If the Network Connection icon is not blinking (Figure 3.9), then a connection exists but there is a problem in authentication (wrong WEP key, if it is required).

Figure 3.9

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If the Network Connection icon has a red X beside it (Figure 3.10), then a link cannot be established between the WLAN card and the Access Point.

Figure 3.10

4 Technical Specifications

Radio Technology	IEEE 802.11g Turbo (DSSS and OFDM)
Operating Frequency	2412 – 2484 MHz (under ISM band)
Modulation Schemes	DSSS: DQPSK, DBPSK, CCK OFDM: 16QAM, 64QAM
RF Channel Availability	United States: 11 channels (2412 MHz to 2462 MHz) Europe: 13 channels (2412 MHz to 2472 MHz) Japan: 13 channels (2412 MHz to 2472 MHz); channel 14 (2484 MHz) only available in DSSS mode (11 Mbps max)
Data Rate	OFDM: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps CCK: 11 and 5.5 Mbps QPSK: 2 Mbps BPSK: 1 Mbps
Media Access Protocol	CSMA/CA with ACK
Transmitter RF Output Power	< 20.0 dBm EIRP (typical) including antenna gain
Antenna Type	1 dBi rated gain
Operating Voltage	3.3 Vdc (PCI slot of host computer)
Interface	PCI-32
Device Driver Support	Microsoft Windows 98SE/ME/NT4/2000/XP

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If the Network Connection icon has a red X beside it (Figure 3.10), then a link cannot be established between the WLAN card and the Access Point.

FCC RF EXPOSURE INFORMATION

WARNING! Read this information before using your phone

In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of this phone complies with the FCC guidelines and these international standards.

⚠ CAUTION

Operating Requirements

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antennas or transmitters. Please maintain 20 cm separation distance from the antenna to meet FCC RF exposure compliance requirements.

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