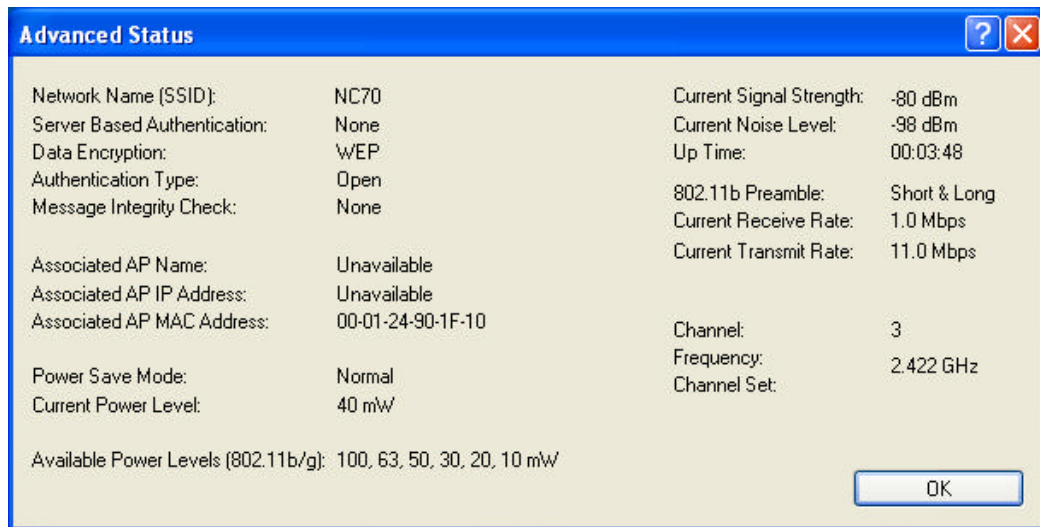
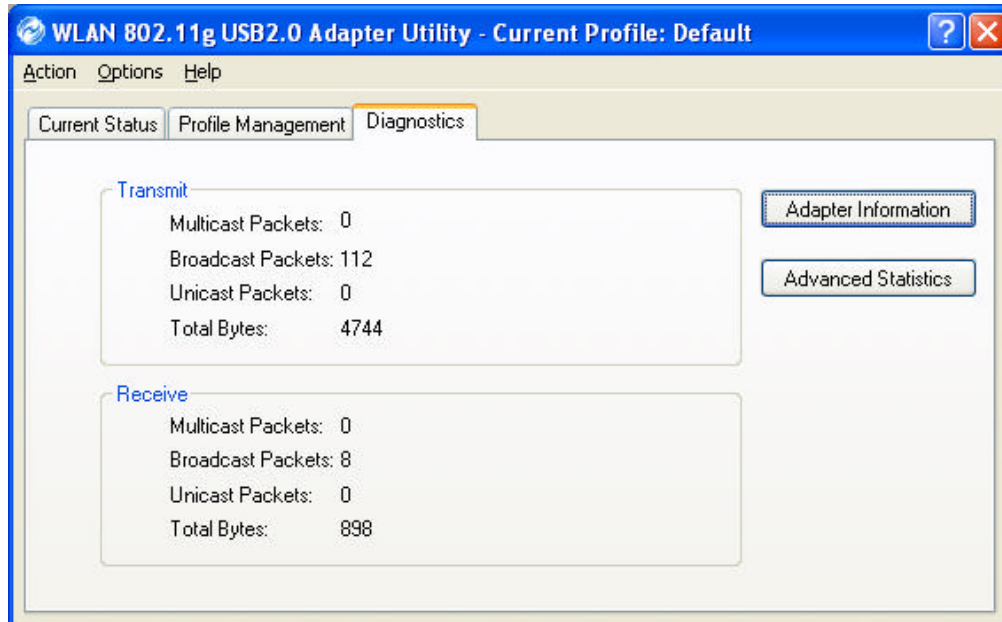


- **Advanced:** Click Advanced button to view related info of SSID, Encryption, Current Power Level or Channel etc.

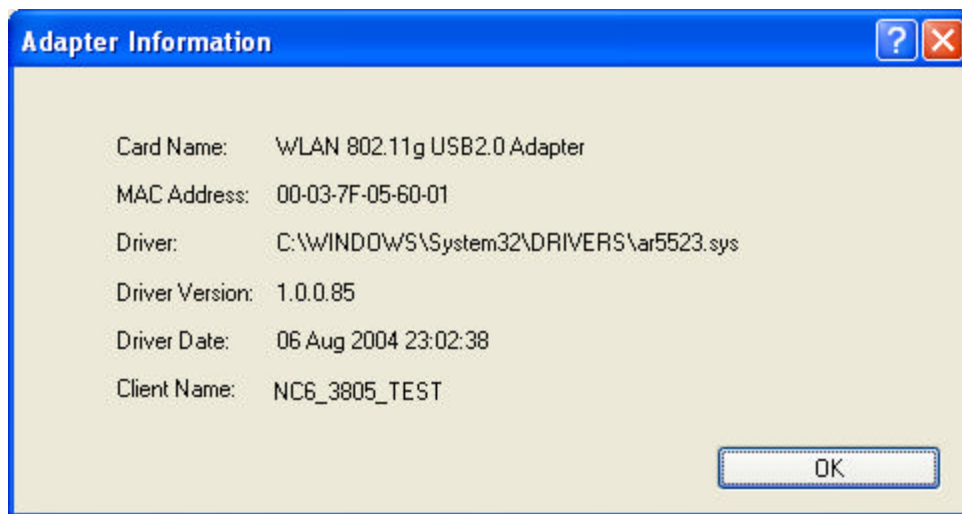


## 4.2 Diagnostics

In Diagnostics tab, you can check Transmit and Receive Data: Multicast Packets, Broadcast Packets, Unicast Packets and Total Bytes.

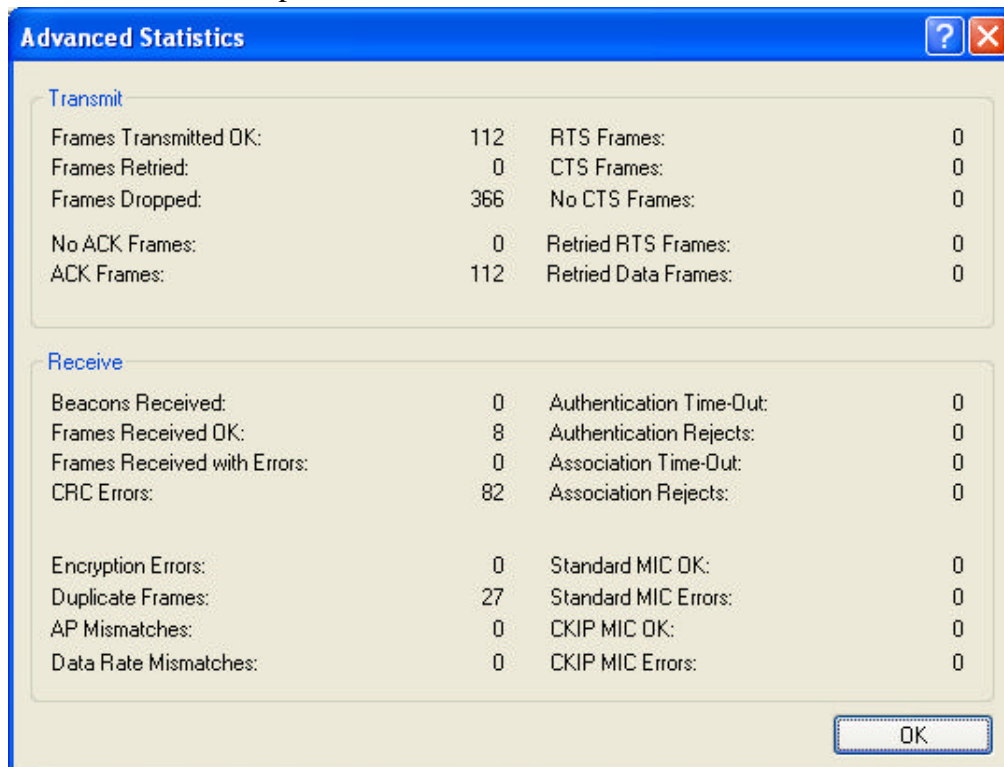


## Adapter Information



- **Card Name:** The name of the wireless network adapter.
- **MAC Address:** The MAC address of the wireless network adapter.
- **Driver:** The driver name and path of the wireless network adapter driver.
- **Driver Version:** The version of the wireless network adapter driver.
- **Driver Date:** The creation date of the wireless network adapter driver.
- **Client Name:** The name of the client computer.

**Advanced Statistics:** Shows receive and transmit statistical information for the following receive and transmit diagnostics for frames received by or transmitted to the wireless network adapter:



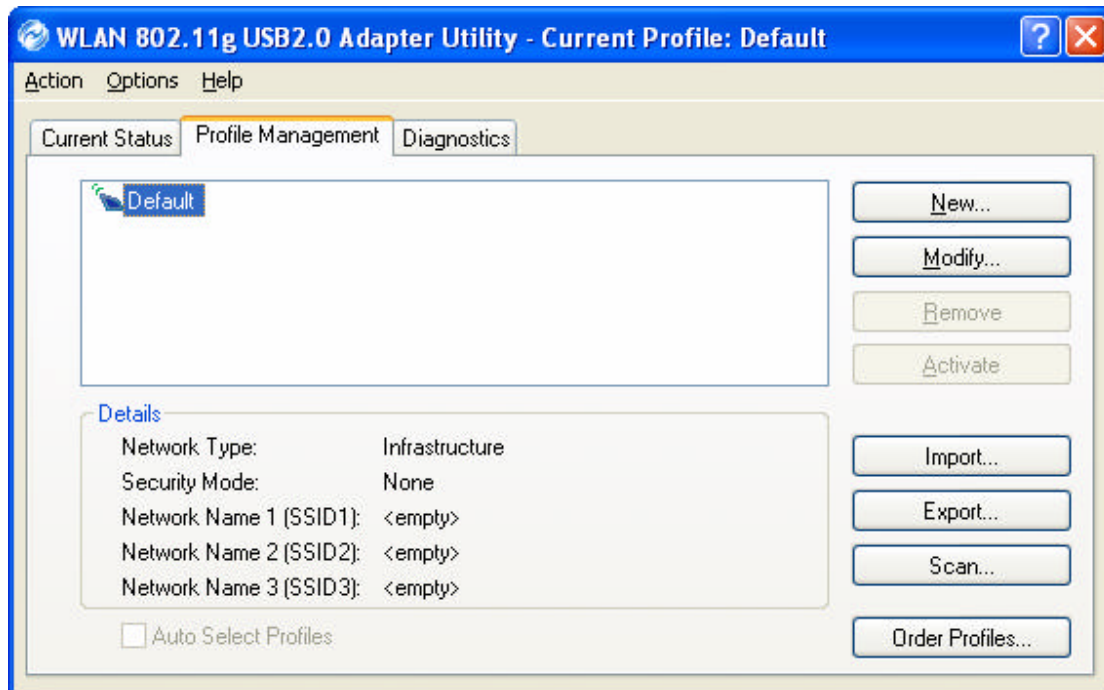
**Transmitted Frames:**

- Frames transmitted OK
- Frames retried
- Frames dropped
- No ACK frames
- ACK frames
- RTS Frames
- Clear-to-send (CTS) Frames
- No CTS frames
- Retried RTS frames
- Retried data frames


**Received Frames:**

- Frames received OK
- Beacons
- Frames with errors
- CRC errors
- Encryption errors
- Duplicate frames
- AP mismatches
- Data rate mismatches
- Authentication time-out
- Authentication rejects: the number of AP authentication failures received by the wireless network adapter
- Association time-out
- Association rejects: the number of access point authentication rejects received by the wireless network adapter
- Standard MIC OK
- Standard MIC errors
- CKIP MIC OK
- CKIP MIC errors

## 4.3 Profile Management



- **Network Type:** Indicates whether the current activated network type is Infrastructure or Ad Hoc mode.
- **Security Mode:** Indicates current connected network's security mode.
- **Network Name:** Indicates current connected network's name.
- **New:** To create new profile.
- **Modify:** To edit settings of chosen profile.
- **Remove:** To remove the chosen profile from the list.
- **Activate:** To activate the chosen profile.
- **Import:** To import a pre-set profile (pre-saved as a Config File \*.prf)
- **Export:** To export the chosen profile, so you can save the profile as a Config File

(\* .prf) for future use. 

- **Scan:** To scan all available network in vicinity.
- **Order Profiles:** To place the order of preferred profiles.

### 4.3.1 Creating or Modifying a Configuration Profile

1. To add a New configuration profile, click **New** on the Profile Management tab. To modify a configuration profile, select the configuration from the Profile list and click the **Modify** button.
2. The Profile Management dialog box displays the **General**, **Security** and **Advanced** tabs.

3. Edit the fields in the **General** tab to configure the configuration profile.

The screenshot shows the 'Profile Management' dialog box with the 'General' tab selected. The 'Profile Settings' section contains two text input fields: 'Profile Name' (empty) and 'Client Name' (containing '020\_NB'). The 'Network Names' section contains three text input fields: 'SSID1' (containing 'NC53'), 'SSID2' (empty), and 'SSID3' (empty). At the bottom right, there are 'OK' and 'Cancel' buttons.

- **Profile Name:** Identifies the configuration profile. This name should be *unique*. Profile names are not case sensitive.
- **Client Name:** Identifies the client machine.
- **Network Names (SSIDs):** The IEEE 802.11 wireless network name. This field has a maximum limit of 32 characters. Configure up to *three* SSIDs (SSID1, SSID2, SSID3).

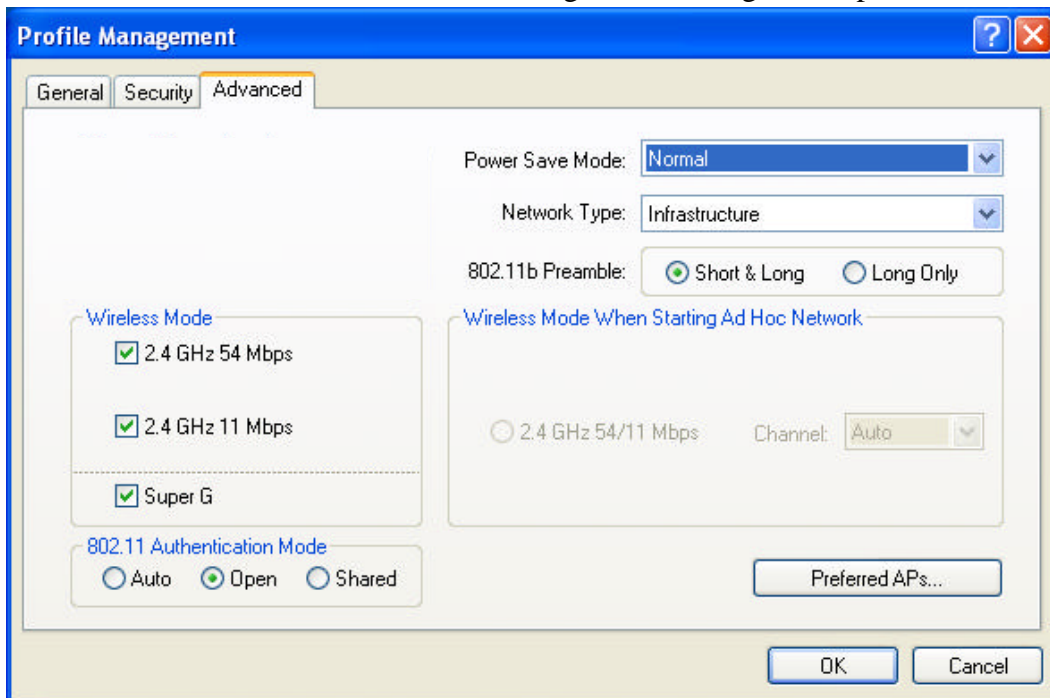
4. Edit the fields in the **Security** tab to configure the configuration profile.

The screenshot shows the 'Profile Management' dialog box with the 'Security' tab selected. The 'Set Security Options' section contains five radio button options: 'WPA/WPA2', 'WPA Passphrase' (selected), '802.1x', 'Pre-Shared Key (Static WEP)', and 'None'. To the right of the 'WPA/WPA2' and '802.1x' options are dropdown menus for 'WPA/WPA2 EAP Type' and '802.1x EAP Type', both set to 'LEAP'. Below the radio buttons is a 'Configure...' button. At the bottom right, there is an unchecked checkbox labeled 'Allow Association to Mixed Cells' and 'OK' and 'Cancel' buttons.

- **WPA/WPA2:** Enables the use of Wi-Fi Protected Access (WPA).

- **WPA Passphrase:** Enables WPA Passphrase security. Click on the **Configure** button and fill in the WPA Passphrase.
- **802.1x:** Enables 802.1x security. This option requires IT administration.
- **Pre-Shared Key (Static WEP):** Enables the use of pre-shared keys that are defined on both the access point and the station.
- **None:** No security (not recommended).

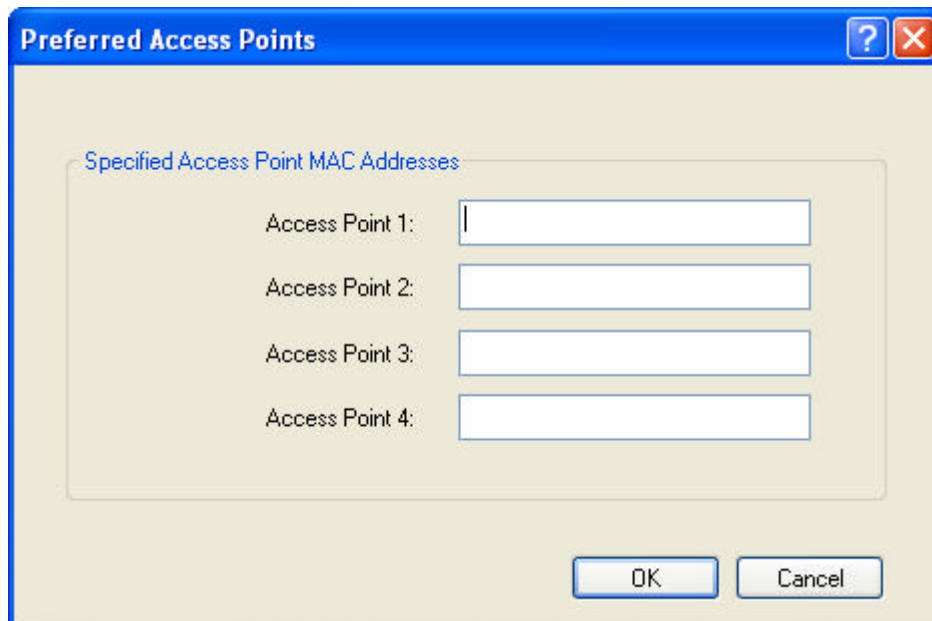
5. Edit the fields in the **Advanced** tab to configure the configuration profile.



- **Transmit Power Level:** Selects the transmit power level for 802.11b/g in mW. Actual transmit power may be limited by regulatory domain or hardware limitations.
- **Power Save Mode:** Specify:
  - ✓ **Maximum** mode: causes the access point to buffer incoming messages for the wireless adapter. The adapter up periodically polls the access point to see if any messages are waiting.
  - ✓ **Normal** mode: uses maxim when retrieving a large number of packets, then switches back to power save mode after retrieving the packets.
  - ✓ **Off:** turns power saving off, thus powering up the wireless adapter continuously for a short message response time.
- **Network Type:** Specifies the network as either Infrastructure or Ad Hoc.
- **802.11b Preamble:** Specifies the preamble setting in 802.11b. The default setting is **Short & Long** (access point mode), which allows both short and long headers in the 802.11b frames. The adapter can only use short radio headers if the access point supports and uses them. Set to **Long Only** to

override allowing short frames.

- **Wireless Mode:** Specifies 2.4GHz 54Mbps, 2.4GHz 11Mbps, or Super G operation in an access point network. The wireless adapter must match the wireless mode of the access point it associates to.
- **Wireless Mode when Starting Ad Hoc Network:** Specifies 2.4GHz 54/11Mbps, to start an Ad Hoc network if no matching network name is found after scanning all available modes. This mode also allows selection of the channel the wireless adapter uses. The channels available depend on the regulatory domain. If the adapter finds no other ad hoc adapters, this selection specifies which channel with the adapter starts the Ad Hoc network with. The wireless adapter must match the wireless mode of the access point it associates to.
- **802.11 Authentication Mode:** Select what mode the wireless adapter uses to authenticate to an access point:
  - ✓ **Auto:** causes the adapter to attempt authentication using shared, but switches it to open authentication if shared fails.
  - ✓ **Open:** enables an adapter to attempt authentication regardless of its WEP settings. It will only associate with the access point if the WEP keys on both the adapter and the access point match.
  - ✓ **Shared:** only allows the adapter to associate with access points that have the same WEP key.
- **Preferred APs:** User can set up to five preferred APs.

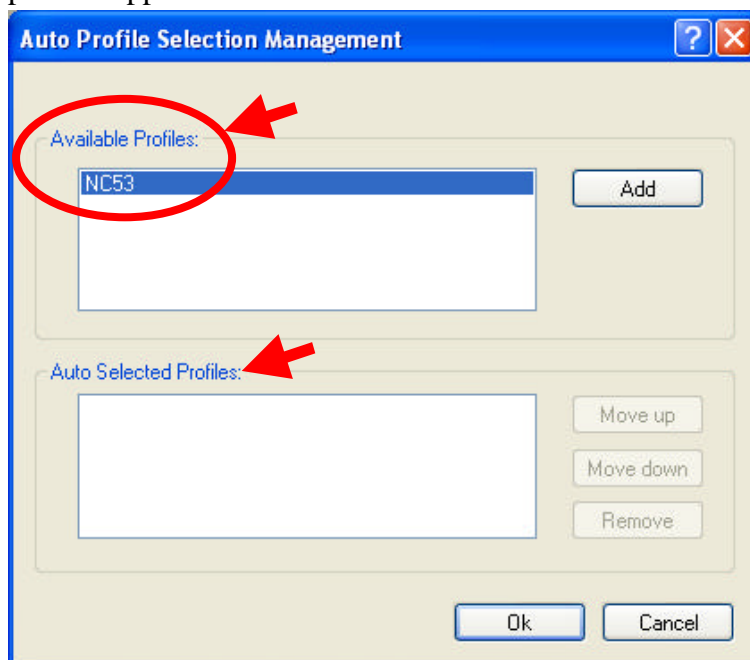


## 4.3.2 Removing a Profile

1. Go to the **Profile Management** tab.
2. Select the profile to remove from the list of configuration profiles.
3. Click **Remove**.

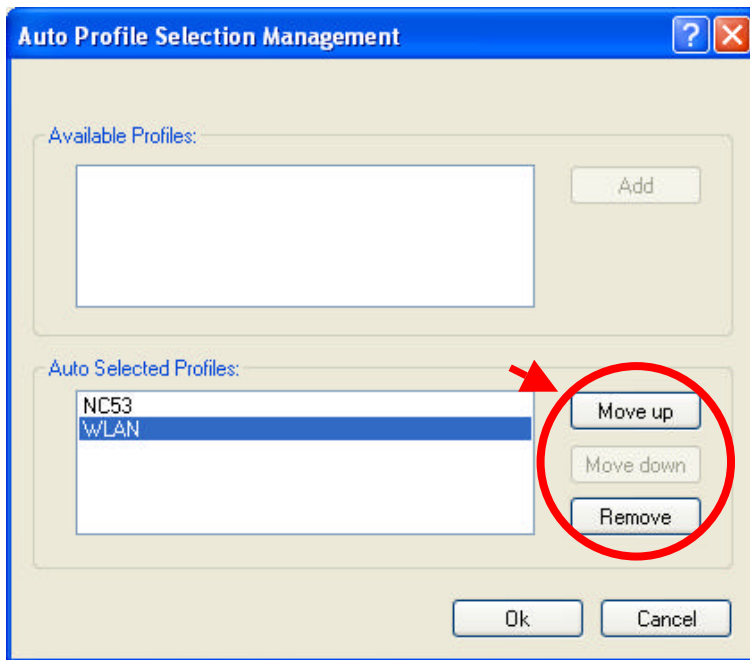
## 4.3.3 Profile Auto Selection

- Including a profile in the auto selection feature allows the wireless adapter to automatically select that profile from the list of profiles and use it to connect to the network.
- Including a profile in auto profile selection:
  1. On the **Profile Management** tab, click **Order Profiles**.
  2. The **Auto Profile Selection Management** window pops up, with a list of all created profiles in the **Available Profile** box.
  3. Highlight the profiles to add to Auto Profile selection, and then click **Add**. The profiles appear in the **Auto Selected Profiles** box.



- Ordering the auto selected profiles:
  1. On the **Profile Management** tab, click **Order Profiles**.
  2. Highlight a profile in the **Auto Selected Profiles** box.
  3. Click **Move up** or **Move down** as appropriate.





4. Click **OK**.
5. Check the **Auto Selected Profiles** box.
6. Save the modified configuration file.
7. With Auto Profile Selection enabled, the wireless adapter scans for available networks. The highest priority profile with the same SSID as a found network is used to connect to the network. On a failed connection, the client adapter tries with the next highest priority profile.

**NOTE!** When **Auto Profile Selection** is enabled by checking **Auto Select Profiles** on the **Profile Management** tab, the client adapter scans for an available network. The profile with the highest priority and the same SSID as one of the found networks is the one that is used to connect to the network. If the connection fails, the client adapter tries the next highest priority profile that matches the SSID, and so on.

### 4.3.4 Switching Profiles

1. To switch to a different profile, go to the **Profile Management** tab.
2. Click on the Profile Name in the **Profile List**.
3. Click **Activate**.
4. The Profile List provides icons that specify the Operational State for that profile. The list also provides icons that specify the Signal Strength for that profile.

## 4.4 Security

### 4.4.1 Using EAP-TLS Security

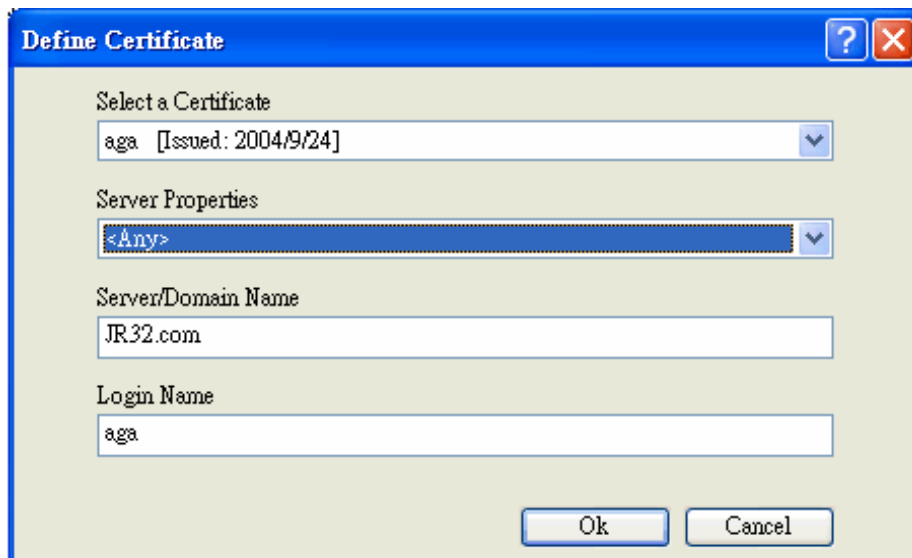
To use **EAP-TLS** security in the Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA/WPA2** or **802.1x**.
2. Select **EAP-TLS** from the drop-down menu.

### 4.4.2 Enabling EAP-TLS Security

To use EAP-TLS security, the machine must already have the EAP-TLS certificates downloaded onto it. Check with the IT manager.

1. Click **Configure**.
2. Select the appropriate certificate authority. Select Server Properties. The Server/Domain Name and the Login Name are filled in automatically from the certificate information.



3. Click **OK** again.
4. Activate the profile.

### 4.4.3 Using EAP-TTLS Security

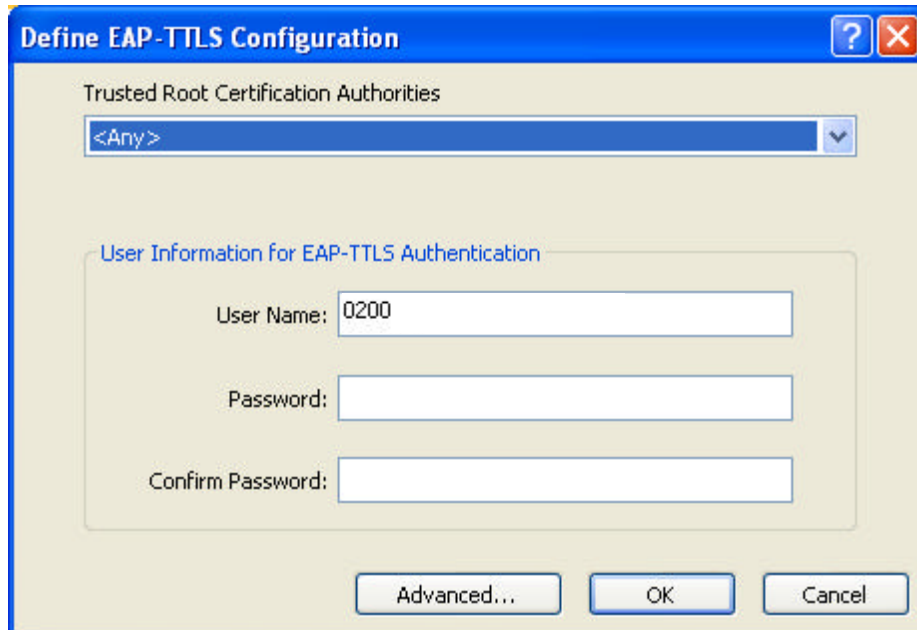
To use **EAP-TTLS** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA/WPA2** or **802.1x**.
2. Select **EAP-TTLS** from the drop-down menu.

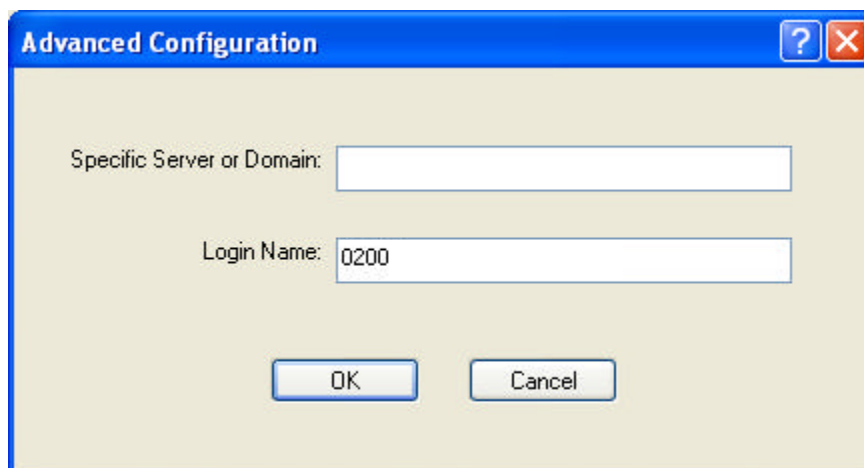
## 4.4.4 Enabling EAP-TTLS Security

To use EAP-TTLS security, the machine must already have the EAP-TTLS certificates downloaded onto it. Check with the IT manager.

1. Click **Configure**.
2. Select the appropriate certificate from the drop-down list and click **OK**.



3. Specify a user name for EAP authentication:
  - ✓ Enter an EAP user name in the User Name field to use a separate user name and password and start the EAP authentication process.
4. Click **Advanced** and:



- ✓ Enter the Specific Server or Domain name of the server from which the client will accept a certificate.
  - ✓ Change the login name if needed.
5. Click **OK**.
  6. Enable the profile.

## 4.4.5 Using PEAP(EAP-GTC) Security

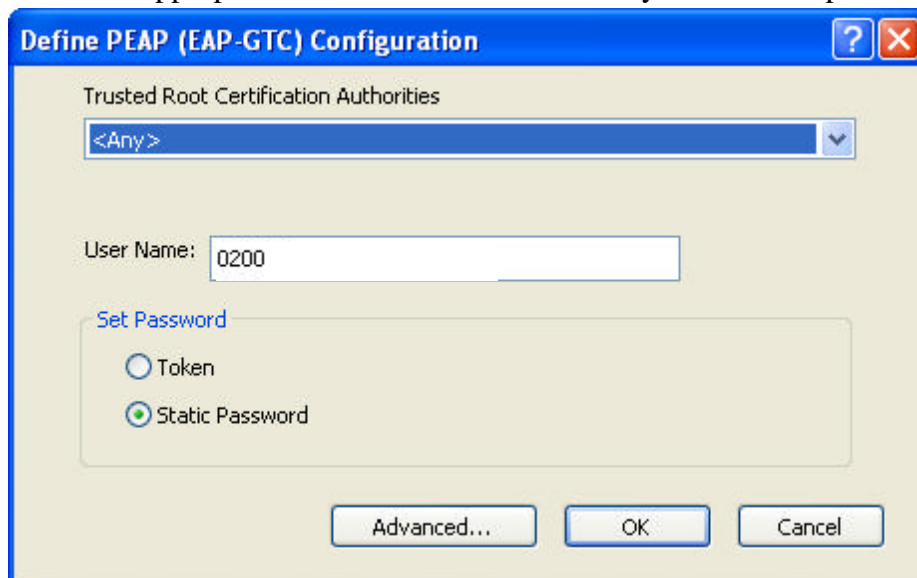
To use **PEAP-GTC** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA/WPA2** or **802.1x**.
2. Select **PEAP(EAP-GTC)** from the drop-down menu.

## 4.4.6 Enabling PEAP(EAP-GTC) Security

To use PEAP-GTC security, the server must have the PEAP-GTC certificates, and the server properties must already be set. Check with the IT manager.

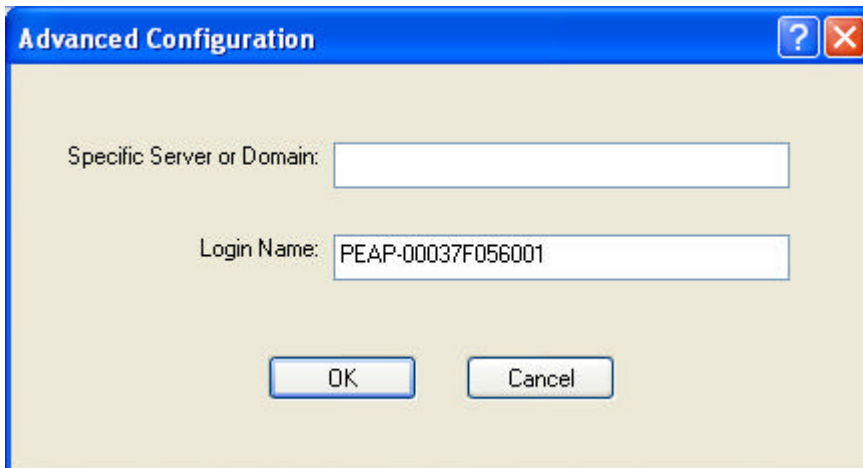
1. Click **Configure**.
2. Select the appropriate network certificate authority from the drop-down list.



3. Specify a user name for inner PEAP tunnel authentication:
  - ✓ Enter a PEAP user name in the User Name field to use a separate user name and start the PEAP authentication process.
4. Select **Token** or **Static Password**, depending on the user database.

**NOTE!** *Token uses a hardware token device or the Secure Computing SofToken program (version 1.3 or later) to obtain and enter a one-time password during authentication.*

5. Click **Advanced** and Advanced Configuration window appears.



- ✓ Enter the Specific Server or Domain name of the server from which the client will accept a certificate.
  - ✓ The login name used for PEAP tunnel authentication fills in automatically as PEAP-XXXXXXXXXX, where XXXXXXXXXXXX is the computer's MAC address. Change the login name if needed.
6. Click **OK**.
  7. Enable the profile.

#### 4.4.7 Using PEAP-MSCHAP V2 Security

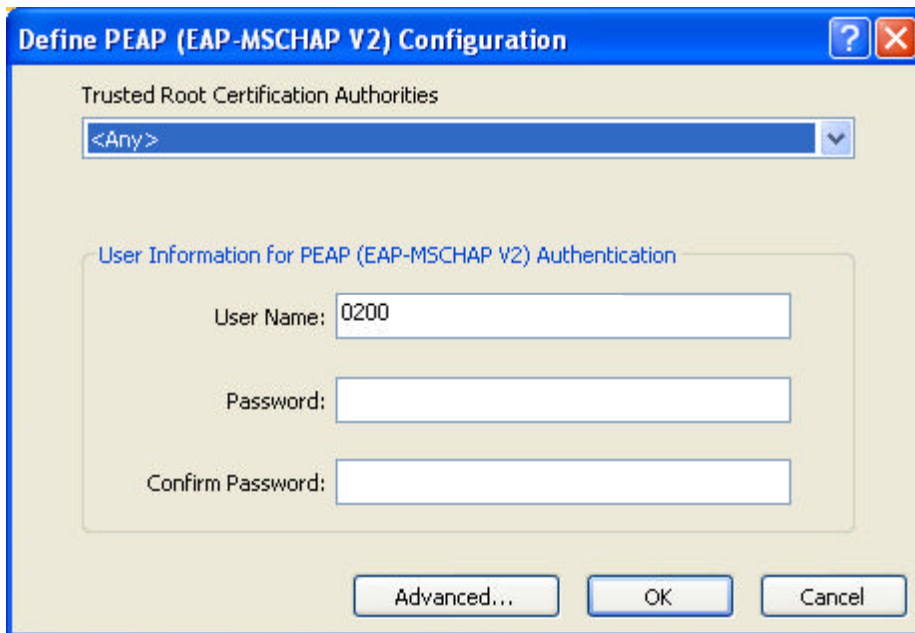
To use **PEAP-MSCHAP V2** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA/WPA2** or **802.1x**.
2. Select **PEAP- MSCHAP V2** from the drop-down menu.

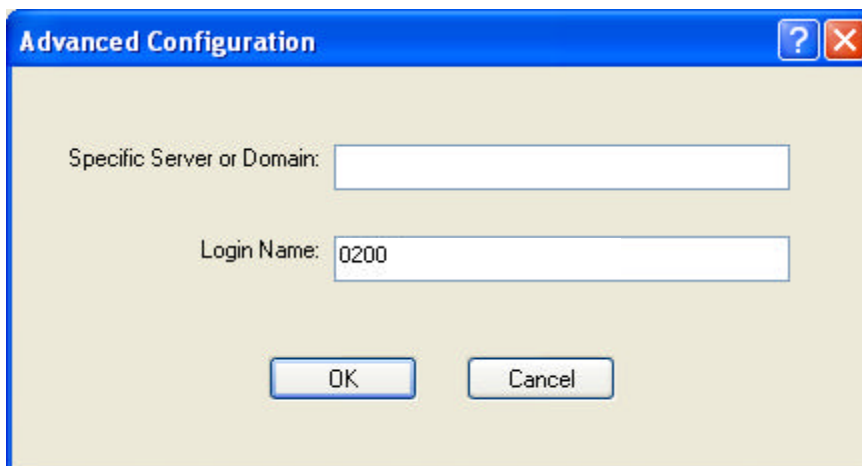
#### 4.4.8 Enabling PEAP- MSCHAP V2 Security

To use PEAP-MSCHAP V2 security, the server must have the PEAP-MSCHAP V2 certificates, and the server properties must already be set. Check with the IT manager.

1. Click **Configure**.
2. Select the appropriate network certificate authority from the drop-down list.



3. Specify a user name for inner PEAP tunnel authentication:
  - ✓ Enter a PEAP user name in the User Name field to use a separate user name and start the PEAP authentication process.
4. Click **Advanced** and:



- ✓ Enter the Specific Server or Domain name of the server from which the client will accept a certificate.
  - ✓ Change the login name if needed.
5. Click **OK**.
  6. Enable the profile.

## 4.4.9 Using LEAP Security

To use **LEAP** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA/WPA2** or **802.1x**.

2. Select **LEAP** from the drop-down menu.

## 4.4.10 Configuring LEAP

1. Click **Configure**.
2. Specify a user name and password:

**Option 1:** Select to **Use Temporary User Name and Password** by choosing the radio button:

- (1) **Manually Prompt for Leap User Name and Password** is checked automatically.

**Option 2:** Select to **Use Saved User Name and Password** by choosing the radio button:

- (1) Enter the user name and password.
- (2) Confirm the password.
- (3) Enter a specific domain name.

LEAP Settings

LEAP username and password settings

Use Temporary User Name and Password

Manually Prompt for LEAP User Name and Password

Use Saved User Name and Password:

User Name:

Password:

Confirm Password:

Domain:

Include Windows Logon Domain with User Name

No Network Connection Unless User Is Logged In

LEAP Authentication Timeout Value (in seconds)

OK Cancel

3. Check the **Include Windows Logon Domain with User Name** setting to pass the Windows login domain and user name to the RADIUS server (default).
4. Check **No Network Connection Unless User Is Logged In** to force the wireless adapter to disassociate after logging off (default).
5. Enter the LEAP authentication timeout time (between 30 and 500 seconds) to specify how long LEAP should wait before declaring authentication failed, and sending an error message. The default is 90 seconds.
6. Click **OK**.
7. Enable the profile.

### 4.4.11 Using WPA Passphrase Security

To use **WEAP Passphrase** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

1. On the Security tab, click **WPA Passphrase**.
2. Click **Configure**.
3. Fill in the WPA Passphrase.



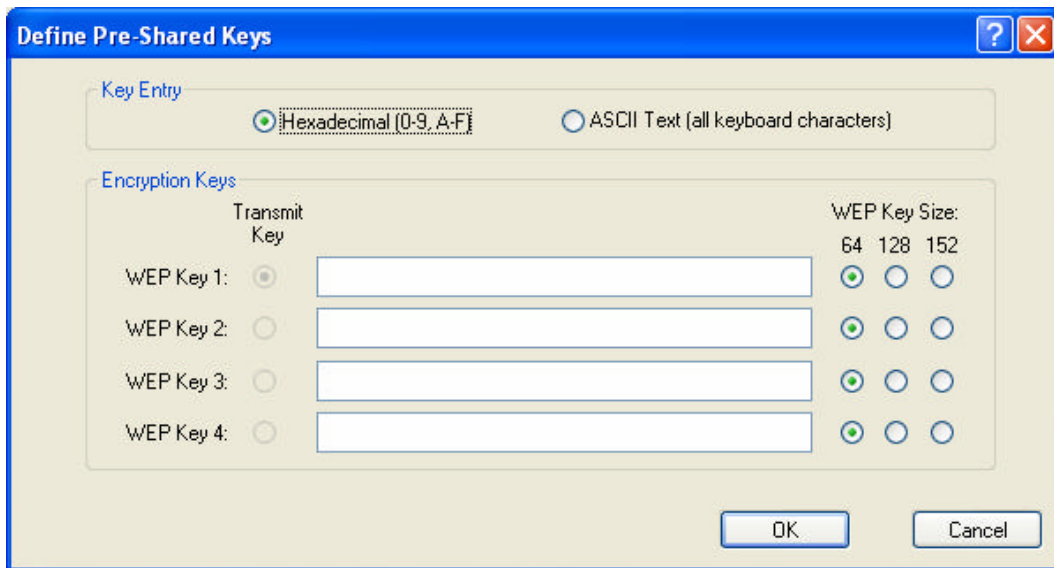
4. Click **OK**.

### 4.4.12 Using Pre-Shared Key (Static WEP) Security

To use **Pre-Shared Key (Static Web)** security in the WLAN 802.11g Utility, access the **Security** tab in the **Profile Management** window.

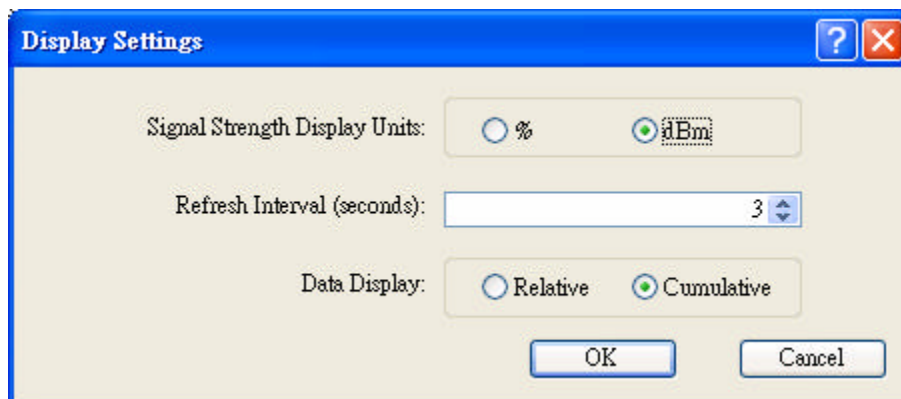
1. On the Security tab, click **Pre-Shared Key (Static WEP)**.
2. Click **Configure**.
3. Choose **Hexadecimal** or **ASCII Text** and then fill in the value of each **WEP Key**.





## 4.5 Display Settings

To change the display settings, choose Options → Display Settings from the menu. The Display Settings dialog box contains tools to set the Signal Strength Display Units, Refresh Interval and Data Display.



- **Signal Strength Display Units:** Sets the units used when displaying signal strength: percentage (%) or dBm.
- **Refresh Interval:** Use the up/down arrows to set the display refresh interval in seconds.
- **Data Display:** Sets the display to cumulative or relative. Relative displays the change in statistical data since the last update. Cumulative displays statistical data collected since opening the profile.

## 4.6 Actions Tools

Click **Action** from the menu to access the tools.

- **Enable/Disable Radio:** Enable or disable the RF Signal.
- **Enable/Disable Tray Icon:** Enable or disable the tray icon.

### Enabled:



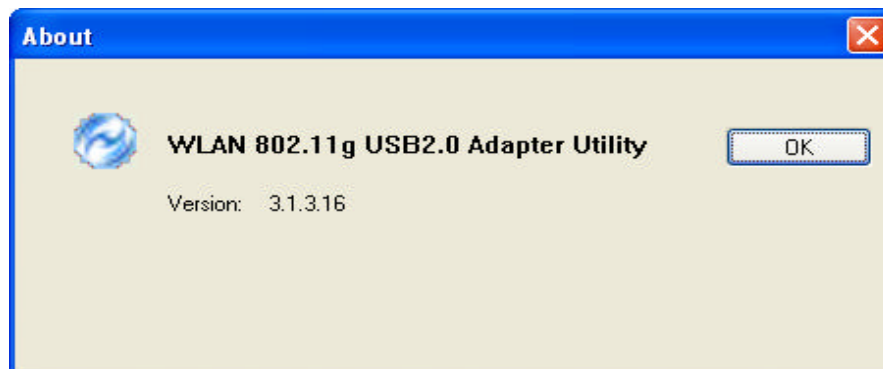
### Disabled:



- **Manual LEAP Login:** Log in to LEAP manually, if LEAP is set to manually prompt for user name and password on each login. See Chapter 4 Security for enabling LEAP.
- **Reauthenticate:** Reauthenticate to a LEAP-configured access point.
- **Exit:** Exit the Utility application.

## 4.7 About Utility Version

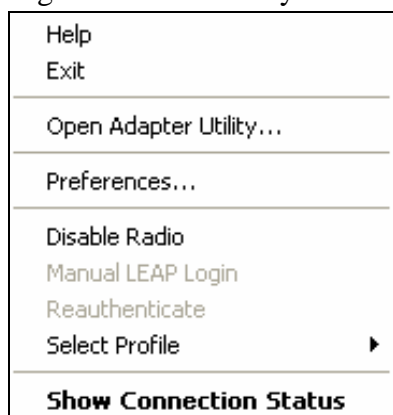
Click Help → About WLAN 802.11g USB2.0 Adapter Utility to check Utility version.



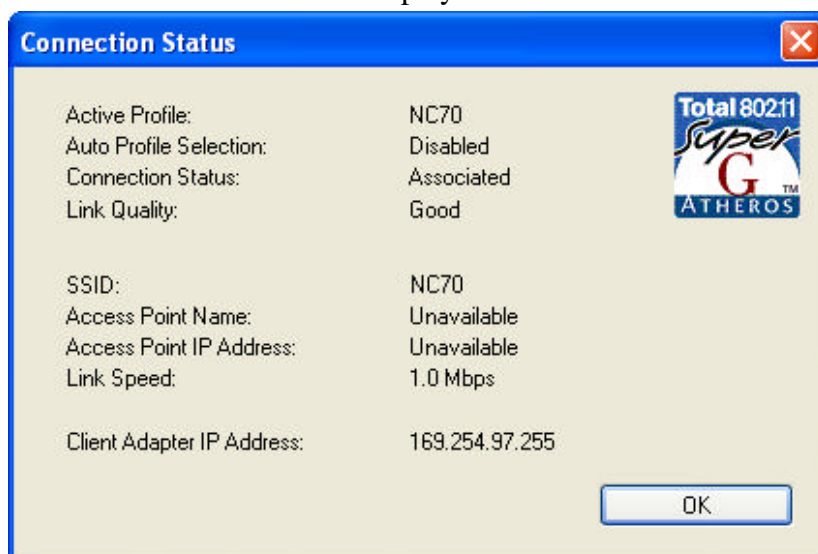
## 5. Right clicking the tray icon

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Right-click on the tray icon to access the following options:



- **Help:** Open the online help.
- **Exit:** Exit the Utility application.
- **Open Adapter Utility:** Launch the Utility.
- **Preferences:** Set the startup options and menu options for the Utility. Check whether the program should start automatically when Windows starts, and check the menu items that should appear on the popup menu.
- **Enable/Disable Radio:** Enable or disable the RF Signal.
- **Manual LEAP Login:** Log in to LEAP manually, if LEAP is set to manually prompt for user name and password on each login. See Chapter 4 Security for enabling LEAP.
- **Reauthenticate:** Reauthenticate to a LEAP-configured access point.
- **Select Profile:** Click a configuration profile name to switch to it. If no configuration profile exists for a connection, see Chapter 3 Profile Management to add a profile first.
- **Show Connection Status:** Display the Connection Status window.



## 6. Network Application

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This section consists of the network applications of 802.11g USB 2.0 Adapter, including:

1. To survey the network neighborhood
2. To share your folder with your network member(s)
3. To share your printer with your network member(s)
4. To access the shared folder(s)/file(s) of your network members(s)
5. To use the shared printer(s) of your network member(s)

In fact, the network applications of WLAN 802.11g USB 2.0 Adapter are the same as they are in a wired network environment. You may refer to the following 3 examples of Surveying the Network Neighborhood, File Sharing and Using the Shared Folder.

### 6.1 Surveying the Network Neighborhood

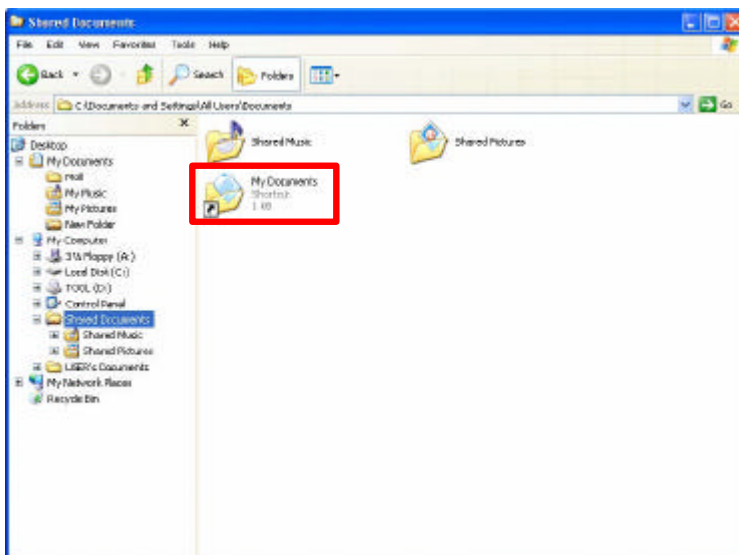
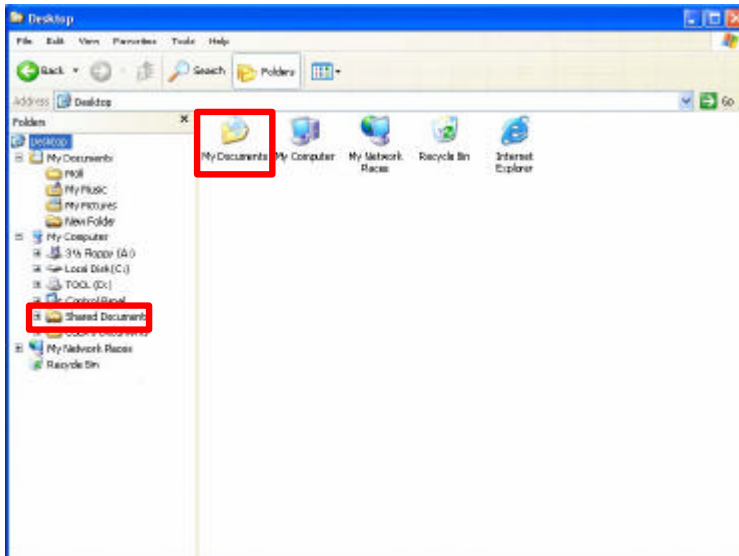
When multiple base stations are up and running in your wireless network, you can use the procedure described below to display the other computers:

1. **Double-click My Network Places** to display all stations in your Microsoft Windows Network Group.
2. To display other workgroups in the network environment, **double-click Entire Network**.
3. If there is a **second network operating system** running in your network environment (for example a Novell NetWare network), the “Entire Network” window will also display available servers running under the second network operating system. If you click on these servers, you may be asked to **enter your user name and password** that applies to the other network operating system. If you cannot find it, verify whether the other wireless computers are:
  - Powered up and logged on to the network.
  - Configured to operate with identical Microsoft Network settings concerning:
    - ✓ Networking Protocol.
    - ✓ Wireless Network Name.

To enable the sharing of **Internet access**, you should set your WLAN mode as “**Infrastructure**” and connect to the access point.

## 6.2 File Sharing

802.11g USB 2.0 Adapter allows the sharing of files between computers that are logged onto the same wireless network. If you want to share your folder “My Documents” with other computers of the wireless network, please **highlight the folder “My Documents”** and drag it to **Shared Documents** folder.



Sharing files in the IEEE802.11g wireless network will be like sharing files on a wired LAN.

## 6.3 Using the Shared Folder

If you would like to access a shared folder stored in other stations of same network, please follow the process below:

1. Double-click the “My Network Places” icon, and then double-click the computer where the shared folder is located.
2. Double-click the folder you want to connect to.
3. Now you may open the needed file(s).

***NOTE!** If a password is required, the Windows will prompt a password column to you. Then you need to enter the password that had been assigned to this shared folder.*

## 6. Product Specifications

Frequency range	USA and Taiwan: 2400 – 2483.5MHz, Europe: 2400 – 2483.5MHz, Japan: 2400 – 2483.5MHz,
Modulation technique	<b>802.11b/g</b> DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Host interface	USB 2.0 Compatible with USB specification revision 2.0 A true "Plug & Play" connection supports hot swapping function. Get power directly from USB port No external power or batteries required
Channels support	<b>802.11b/g</b> US/Canada/Taiwan: 11 (1 ~ 11) Major European country: 13 (1 ~ 13) France: 4 (10 ~ 13) Japan: 11b: 14 (1~13 or 14 <sup>th</sup> ), 11g: 13 (1 ~ 13) China: 13 (1 ~ 13)
Operation voltage	5.0V +/- 10%
Power consumption	Max. 500mA
Output Power	Max. 17dBm
Operation distance	<b>802.11b</b> Outdoor: 250m@11Mbps, 300m@1Mbps Indoor: 30m@11Mbps, 50m@1Mbps <b>802.11g</b> Outdoor: 80m@54Mbps, 250m@6Mbps Indoor: 15m@54Mbps, 35m@6Mbps
Operation System supported	Windows® 98SE, ME, 2K, XP
Dimension	94mm (L) x 32.2mm (W) x 7.3 mm (H)
Security	64-bit, 128-bit, 152-bit WEP Encryption 802.1x Authentication AES-CCM & TKIP Encryption
Operation mode	Infrastructure & Ad-hoc mode
Transfer data rate	<b>802.11b/g</b>

	11, 5.5, 2, 1 Mbps, auto-fallback, up to 54 Mbps 802.11g (Super mode) up to 108 Mbps
Operation temperature	0 °C ~ 70°C
Storage temperature	-20°C ~ 80°C
Wi-Fi® Alliance	WECA Compliant
WHQL	Microsoft®2K, XP Compliant
USB 2.0 IF	USB 2.0 IF Compliant
EMC certificate	FCC part 15 (USA) LP0002(Taiwan) IC RSS210 (Canada) Telec (Japan) ETSI, EN301893, EN60950 (Europe)
Media access protocol	CSMA/CA with ACK architecture 32-bit MAC
Advance Function	Super G™ Extended Range
Antenna type and gain	Printed Antenna,-0.17dBi