

\*\*\* USER'S MANUAL \*\*\*

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**FCC ID : TWAWL0401C**

## **The Federal Communication Commission Statement**

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures: -

- Reorient or relocate the receiving antenna.**
- Increase the separation between the equipment and receiver.**
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- Consult the dealer or an experienced Radio/TV technician for help.**

Use only shielded cables to connect I/O devices to this equipment. You are cautioned that change or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

1. This device may not cause harmful interference and
2. This device must accept any interference received, including interference that may cause undesired operation.

# Table of Contents

<b>Chapter 1</b>	<b>Introduction</b>	<b>2</b>
1-1	Product kit.....	2
1-2	System requirements.....	2
1-3	Features.....	2
<b>Chapter 2</b>	<b>Installation of Wireless LAN USB Adaptor</b>	<b>3</b>
2-1	Installation Overview (For Windows XP).....	3
<b>Chapter 3</b>	<b>Using the Wireless Network Client</b>	<b>7</b>
3-1	The Wireless Network Client (WNC) Layout.....	7
3-2	Compact Mode.....	7
3-3	Advanced Mode.....	8
3-4	The Add New Profile Wizard.....	12
<b>Chapter 4</b>	<b>Specification</b>	<b>16</b>

# Chapter 1. Introduction

Thank you for purchasing the Wireless Local Area Network (WLAN) USB adaptor/Flash drive. This product incorporates USB flash drive and 802.11b WLAN. This USB adaptor is designed to comply with IEEE 802.11b Wireless LAN standard and easy to carry with the compact size. It can be easily used with any Laptop or Desktop computers. It supports windows OS Plug & Play installation and USB Hot Swap, Allowing you plug in or remove it without reboot your computer. It is ideally suitable for being integrated into the personal Mobile and Handheld Platform.

## 1-1 Product Kit

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Before installation, make sure that you have the following items:

- WLAN USB adaptor/Flash drive
- Software CD containing User manual and driver
- Quick installation guide

Please contact you local distributor or authorized reseller immediately for any missing or damaged components

## 1-2 System Requirements

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Before using your WLAN USB adaptor, please check that you have the following required items:

- Desktop/Notebook with USB port and CD-ROM drive
- Microsoft Windows 98SE/ME/2000/XP operating system.

## 1-3 Features

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- Flash Memory: 64/128/256/512M Bytes(Optional)
- Complies with the IEEE 802.11b
- Radio Technology: Direct Sequence Spread Spectrum (DSSS)
- Data Rate: up to 11Mbps
- Build in Chip Antenna
- Host Interface: USB 2.0 Compatible
- Frequency: 2.4 GHz
- Portable and compact size design

# Chapter 2. Installation of Wireless LAN USB Adaptor

## 2-1 Installation overview (For Windows XP)

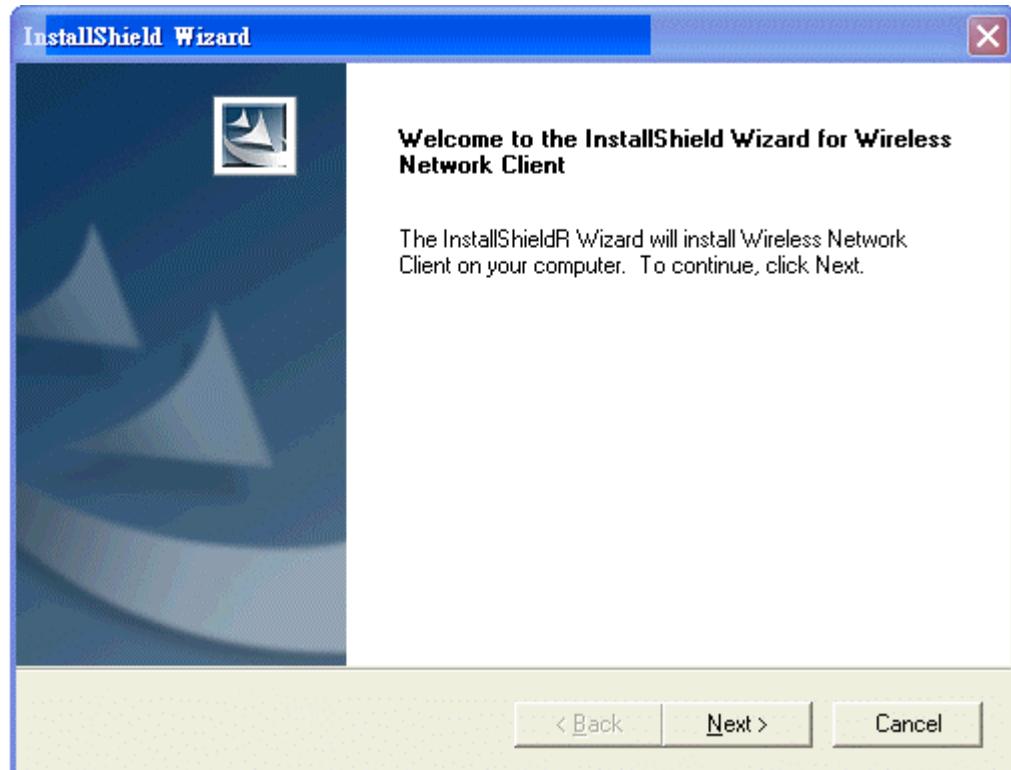
This is a quick step by step guide on how to install your WLAN USB Adaptor. Please follow the steps described below and refer to the appropriate sections for further details:

- **Power on the computer.**
- **Please make sure that you don't insert your Wireless LAN USB Adaptor yet.**
  - **Insert the given installation CD into your CR-ROM drive.**
  - **Locate the executive file “Setup.exe” and double click it.**

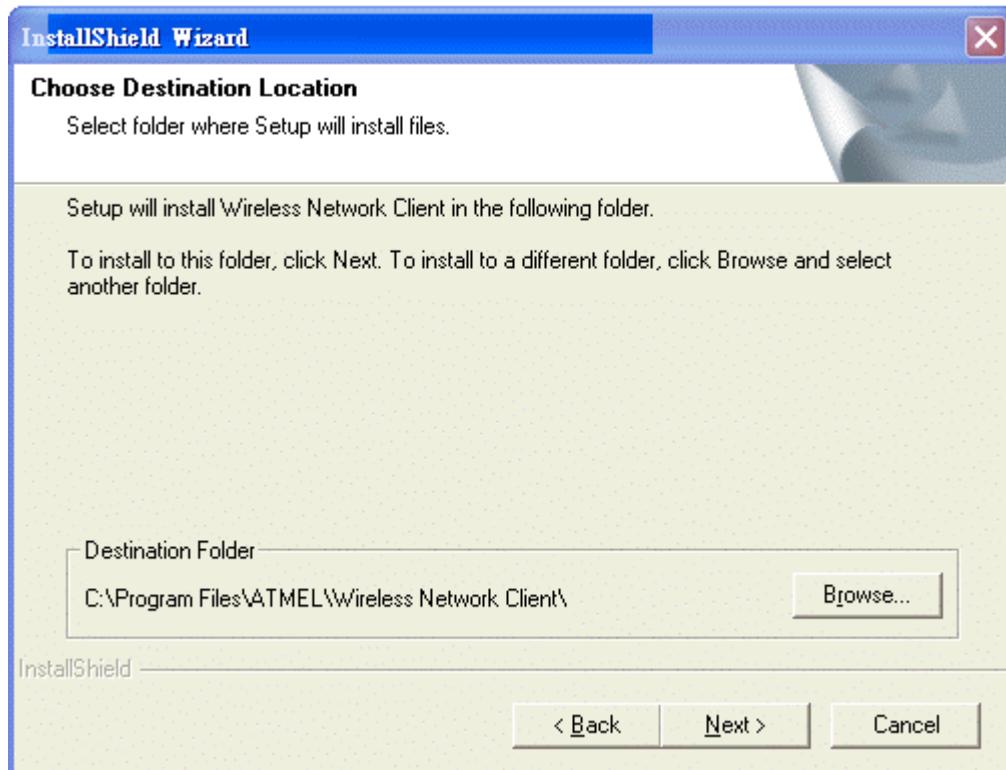


Setup.exe

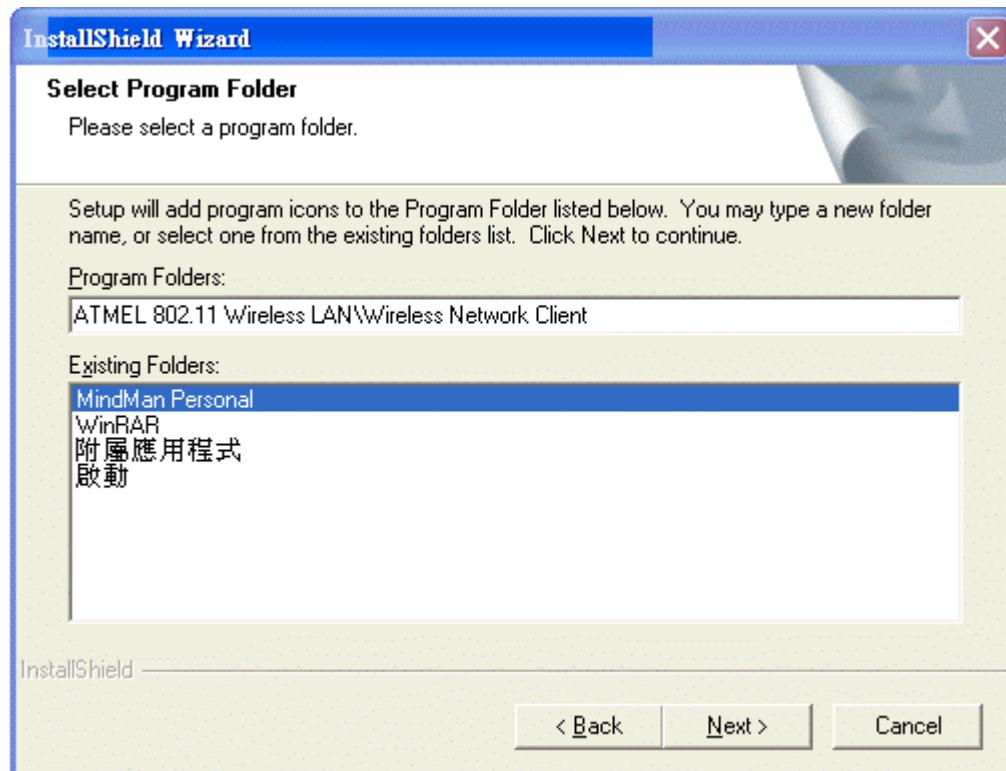
- **Follow the installation instructions from the InstallShield Wizard by pressing the “Next” button.**



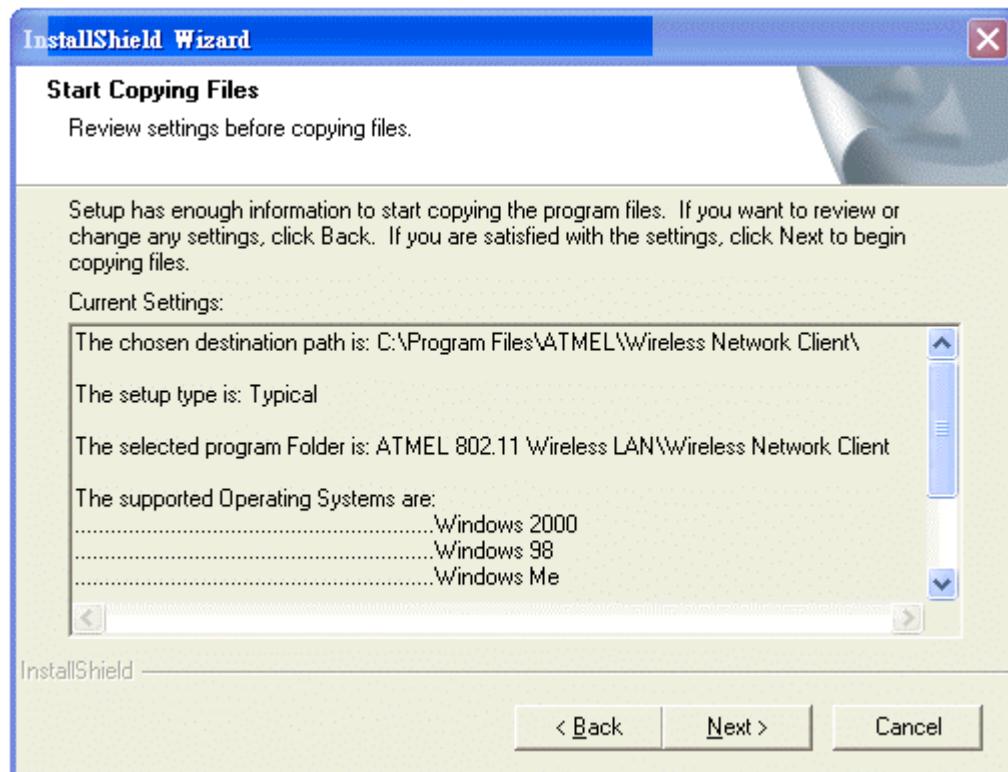
- Give the destination path of where the application will be installed. To set up the path of your choice select Browse and then Next.



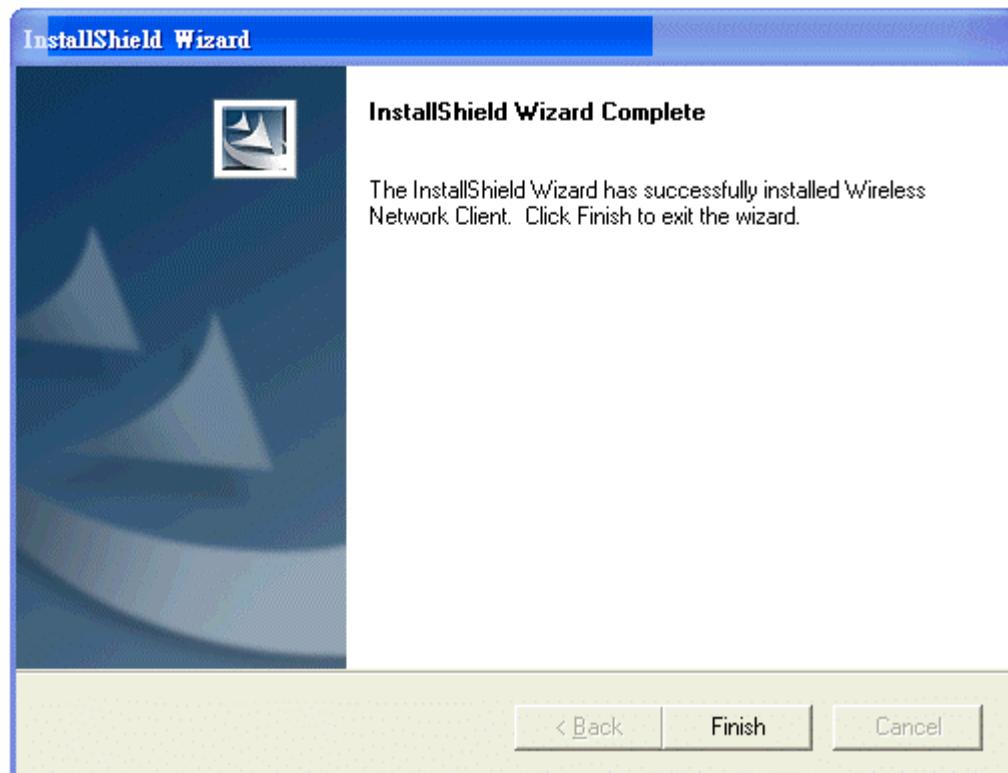
- Type a new folder name or select one from the existing folders list. Setup will add program icon to it. Click Next to continue.



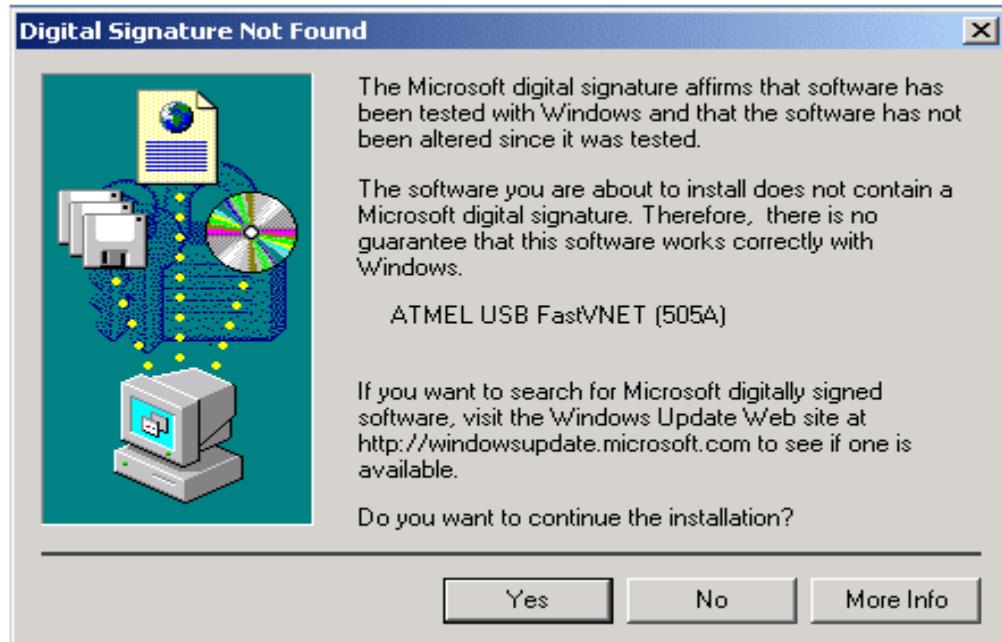
■ Start copying files by clicking the Next button.



■ Finish the installation.



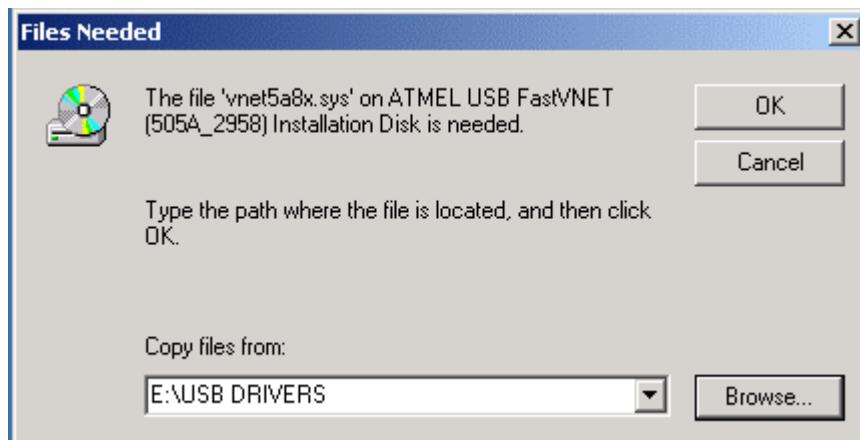
- Please plug in your WLAN USB Adaptor.
- Press Yes to continue the installation



- Please insert the Compact Disc into CD-ROM drive



- Type the Path where the file is located and then click OK



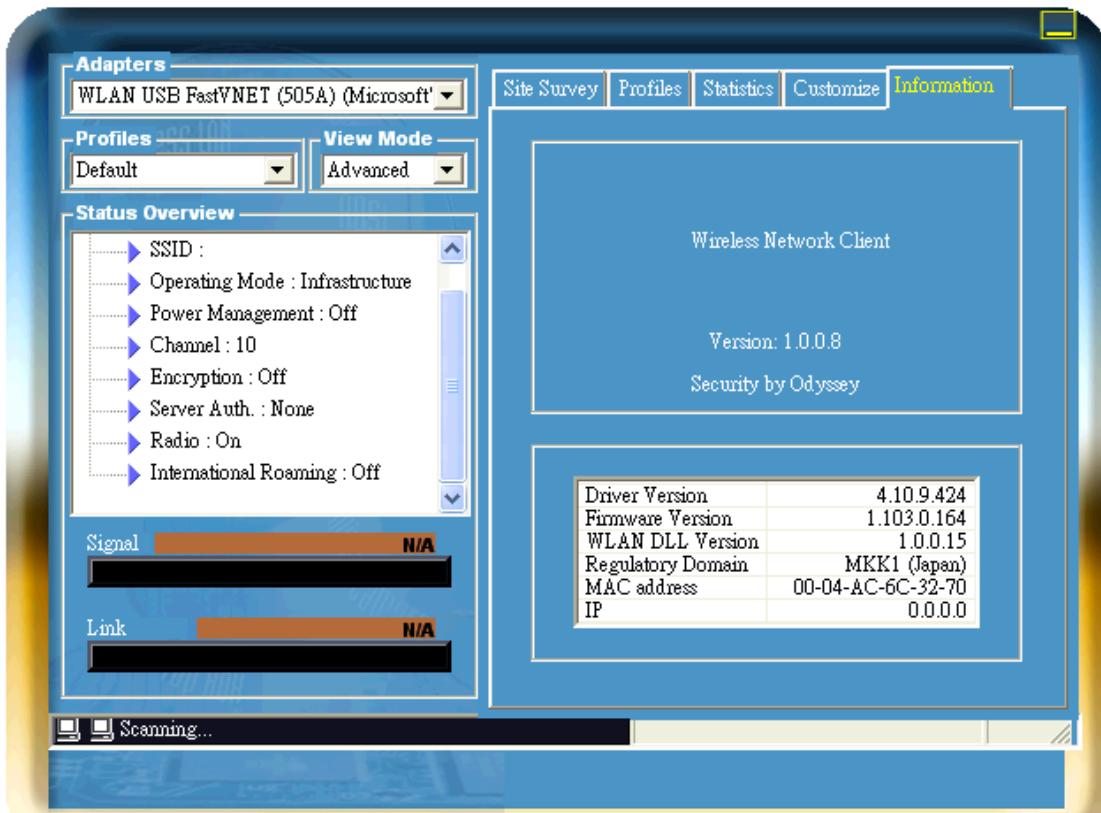
- The installation is finished.

# Chapter. 3 Using the Wireless Network Client

## 3.1 The Wireless Network Client (WNC) Layout

The WNC is divided into two sections, the left side and the right. The left side has information regarding the available adapters, the profiles, the status of the currently used adapter and its signal strength and link quality. At the right side there is a tab section that you can use and configure the select wireless adapter.

Figure 3-1. The Wireless Network Client



Also the WNC has two View Modes, the Advanced that is showing the left and right side and the compact that is only the left side of the utility.

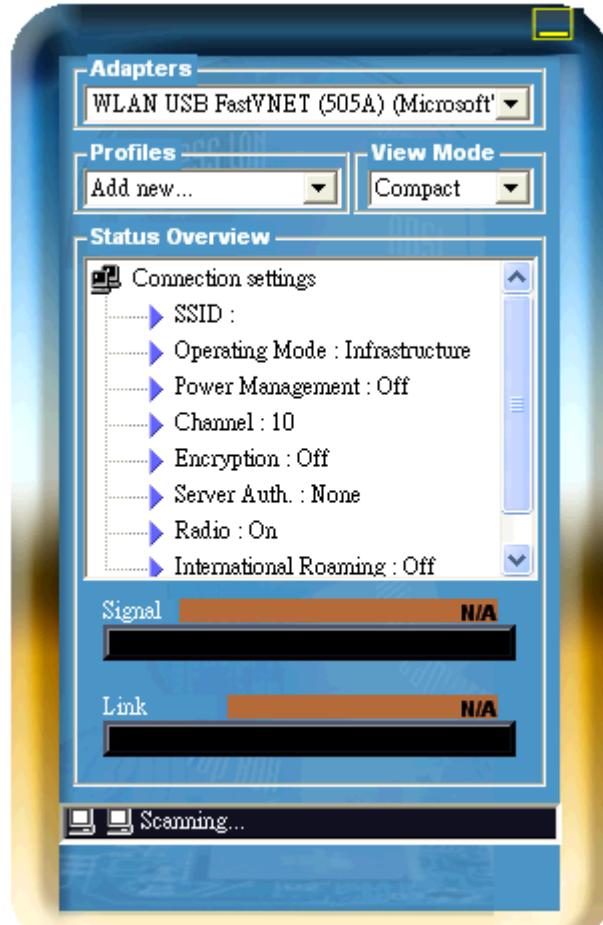
## 3.2 Compact Mode

The compact mode is the left side of Figure 3-1 and it has the following information:

- **Adapters:** From this field you can select the one of the supported adapters to use and configure.
- **Profile:** Here you can select the one of the available profiles that you already have configured. By selecting it the adapter that you have selected it will be configured accordingly. If you select the “Add new...” you will be automatically shown to the add new profile wizard.

- **View Mode:** WNC has two view modes that are selected from this field. The Compact view that is shown to Figure 3-2 and the Advanced view that is shown to Figure 3-1.
- **Status Overview:** In this list you can see several information regarding the selected adapter that you can configure from the customize tab.

Figure 3-2.



### 3.3 Advanced Mode

You can see the Advanced mode at Figure 3-3 and as you can see it is including the left and right part of the utility. To the right part you can see the available tabs for the configuration of your wireless adapter. Below you will find a description of each tab and the available options in each one.

#### 3.3.1 Site Survey Tab

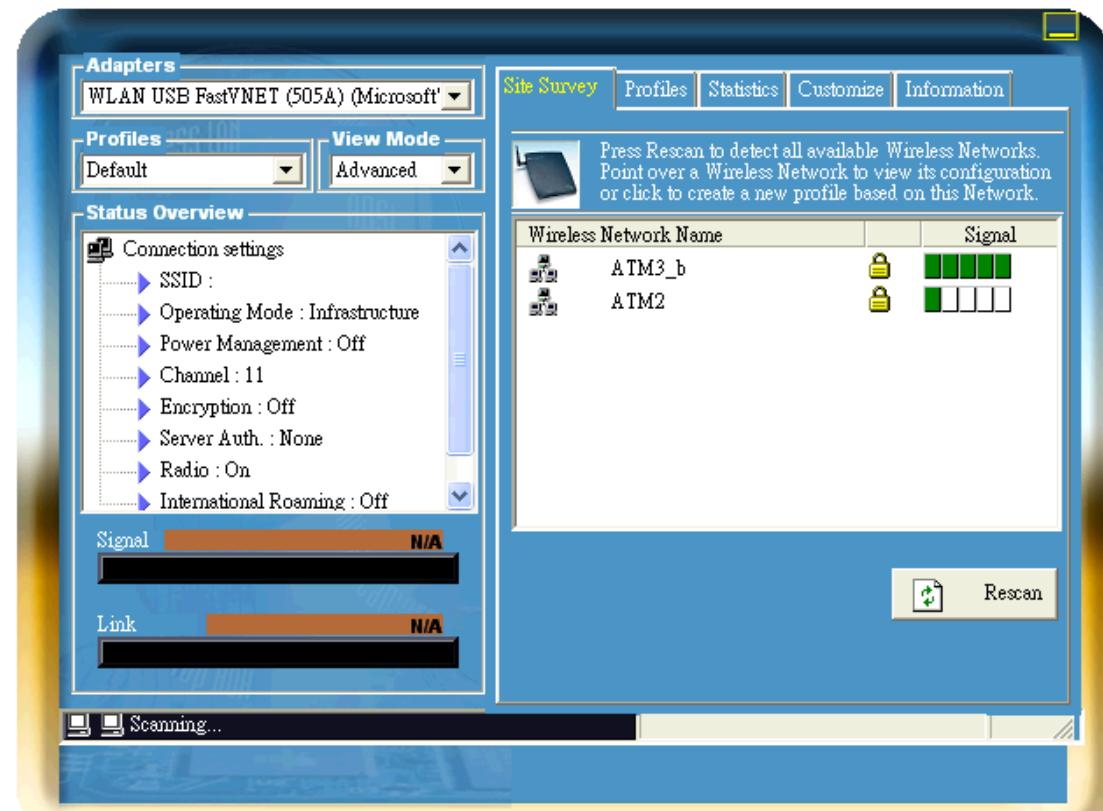
To this tab you can perform a Site Survey so you can see the available wireless network in range of your adapter and connect to one of them. Also if you double-click to one of the available networks then the “Add New Profile wizard” is shown, If the BSSID of the selected network is already existing to a profile with the same Encryption settings then this profile will be automatically selected and **applied, else**

the “Add New Profile” will be shown.

- **Rescan:** Clicking this button it will initiate a Site Survey to the selected adapter.

**Note:** Switching from the Site Survey tab to one other and back it will clear the list of the available networks.

**Figure 3-3 Site Survey Tab**



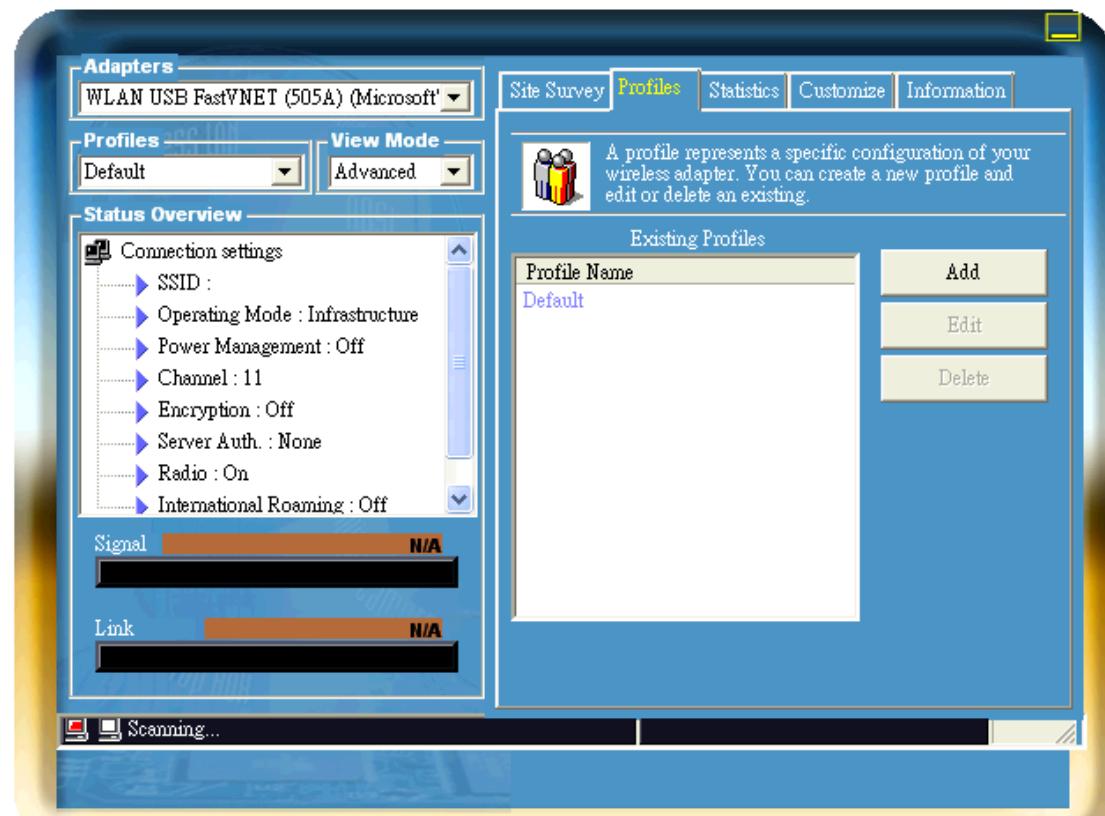
### 3.3.2 Profile Tab

From this tab you can create, edit or delete a profile, this is possible with the help of the tree buttons to the right of the list with the available profiles.

- **Add:** this button will start the “add new profile wizard”, first you should select the profile name, by default the WNC is adding the as the name of the profile the BSSID of the network. Clicking to the next button to the bottom of the window you can see/edit the rest of the necessary settings for the profile.
- **Edit:** This button will show you the “add new profile” wizard for edition the selected profile. The only thing that you cannot edit is the profile name.
- **Delete:** Clicking on this button you will be asked if you want to delete the selected profile from the list with the available profiles. If you have not selected any profile then you shall be asked to select one first.

**Note:** The default profile can not be edited or deleted.

Figure 3-4. Profile Tab.



### 3.3.3 Statistics Tab

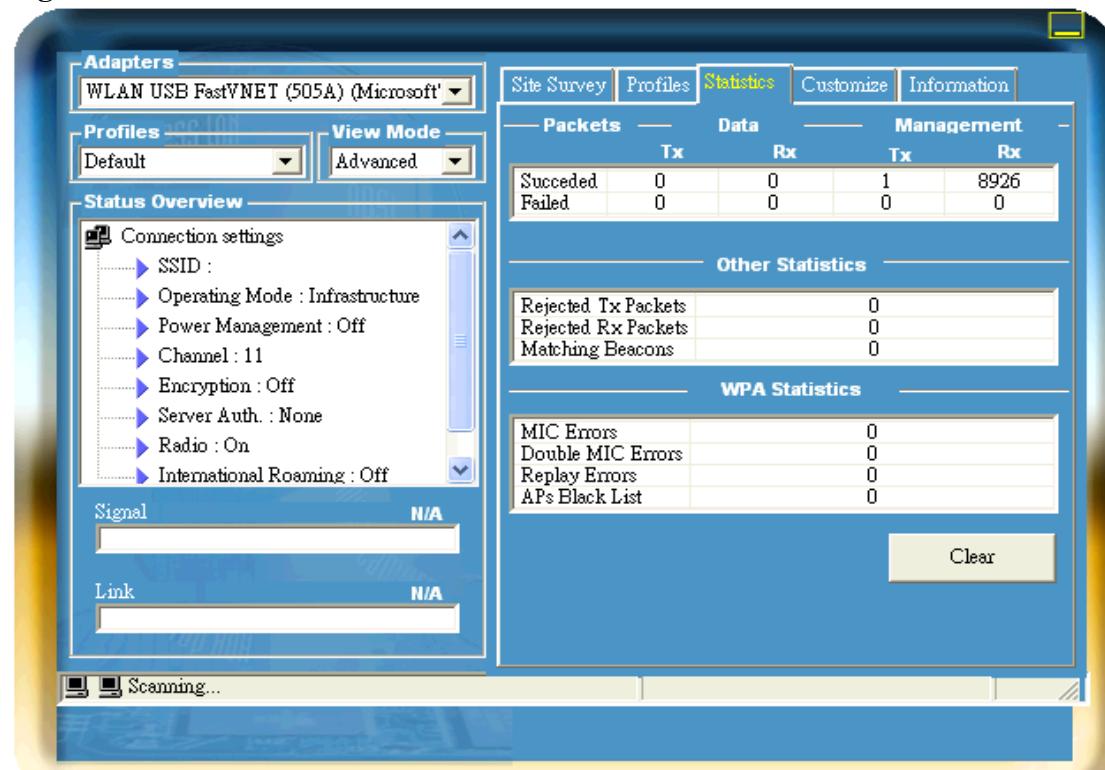
In this tab there are the statistics information from the driver for the selected adapter. The available information as you can see at Figure 3-5 are:

- Successful Data Rx/Tx Frames
- Successful Management Rx/Tx Frame
- Rejected Rx/Tx Frames
- Match Beacons

Also, there is some WPA related information:

- MIC error
- Double MIC error
- Replay Errors
- APs Black List

Figure 3-5. Statistics Tab

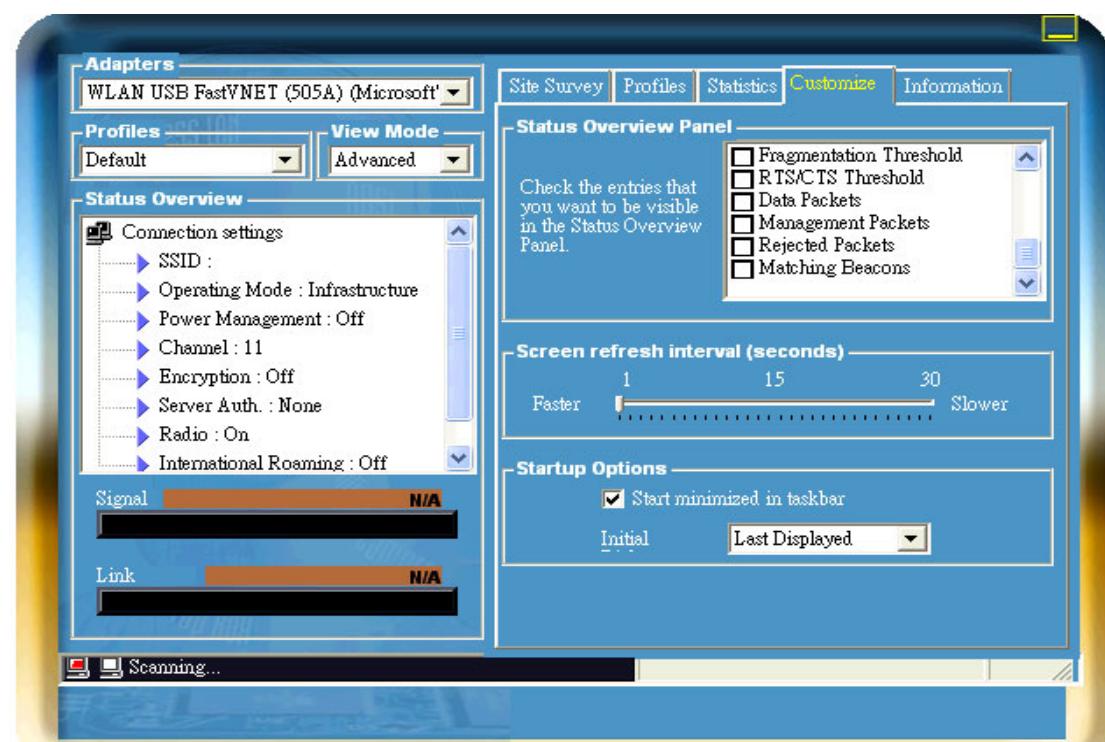


### 3.3.4 Customize Tab

WNC has the ability to change many of the displayed information; this can be configured in this tab.

- **Minimized to the Taskbar:** If this option is selected then the WNC will start minimized to the Taskbar.

Figure 3-6. Customize Tab

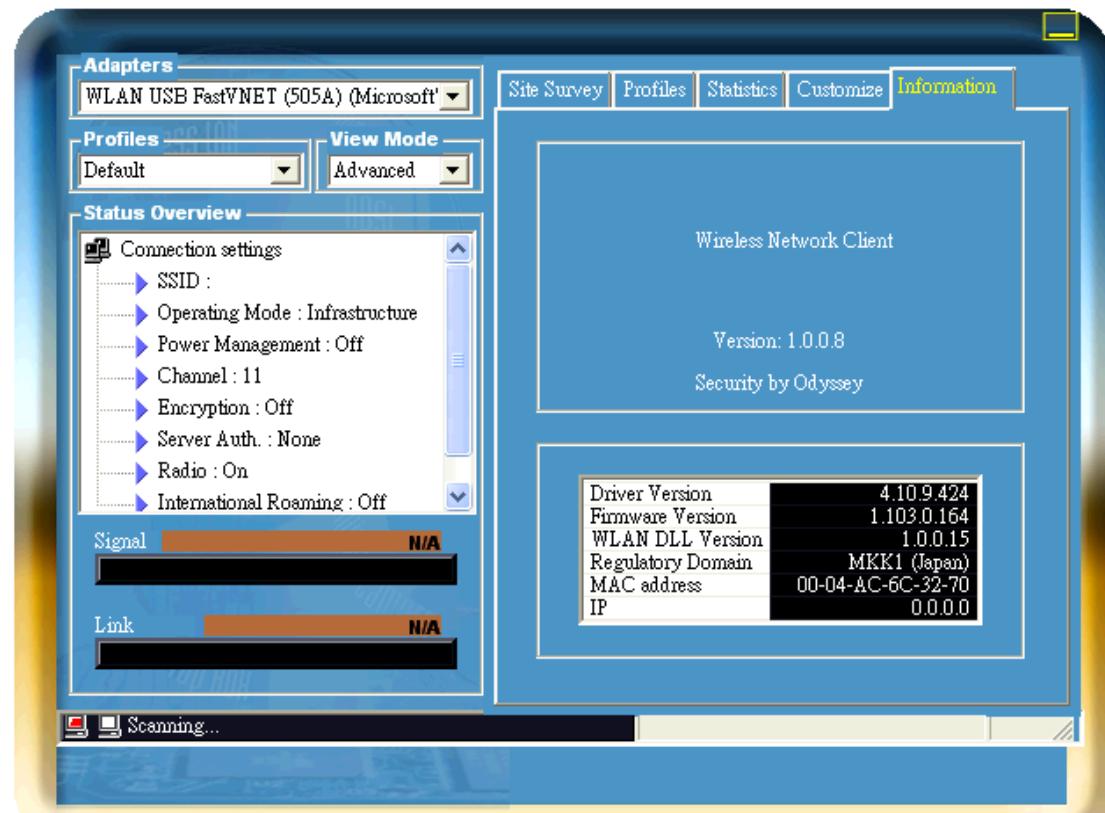


### 3.3.5 Information Tab

In the information tab you can see several version information. The available information that you can find from this page is:

- Driver/Firmware Version
- WLAN DLL Version
- Regulatory Domain that the card is configured
- MAC address
- IP address

**Figure 3-7. Information Tab**



### 3.4 The Add New Profile Wizard

WNC is using a wizard for creating/edition a new profile. Below are the steps of this wizard and some helpful information about each page.

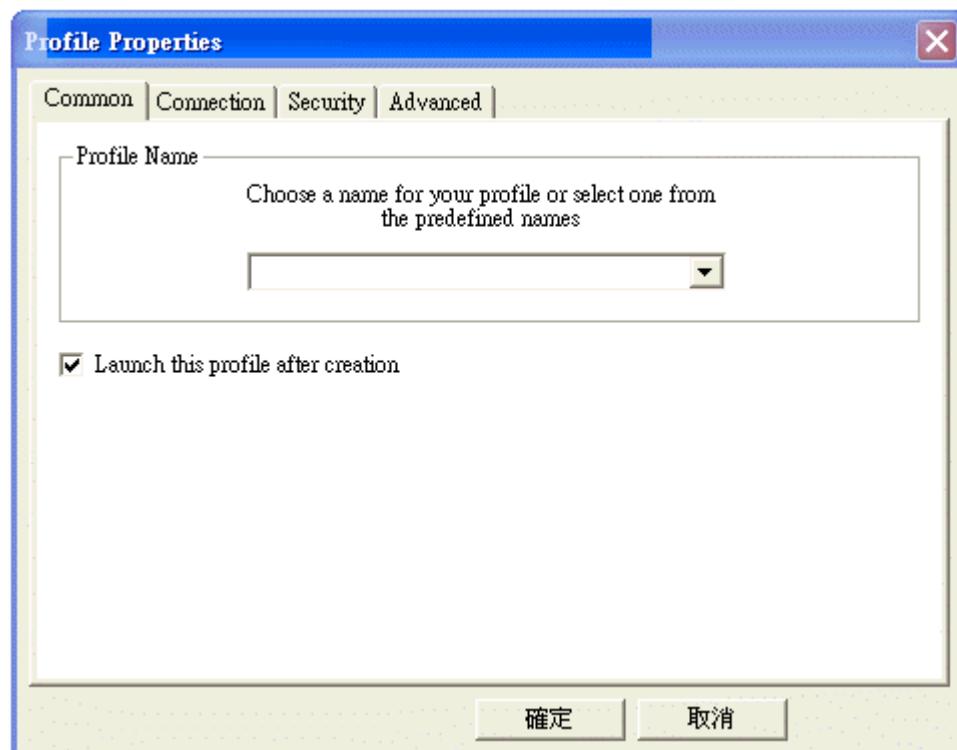
The “Add New Profile” wizard can be initiated by the Site Survey tab when you double click to an available network that there is no existing profile or from the Profiles tab by clicking the “Add” button.

Clicking the “Add” button it will initiate the wizard and the first page will appear.

### 3.4.1 Common Page

The first thing that you will have to fill is the name of the Profile, The name it can be a general description about the AP or the network that you are about to connect to or the BSSID of the AP. By default the WNC is filling as name the BSSID of the AP that you have selected.

Figure 3-8. Add New Profile-Common



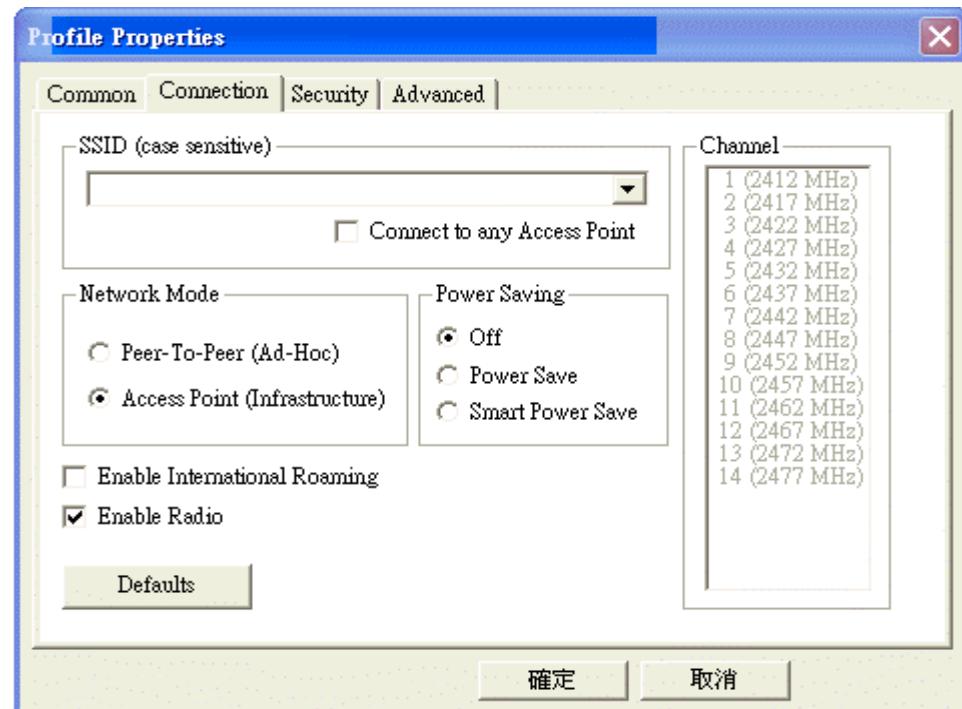
Also there are several predefined names that you can choose from the drop down list. Here you should also choose if you want this profile to be used automatically when you finished it or just to be added to the list with the available profiles.

### 3.4.2 Connection Page

The next page is the Connection page where you can in order to change the SSID of the AP that the wireless adapter will try to find and connect to. Also here you can configure if the wireless adapter will connect with an AP or with an other wireless adapter and at which channel, if the International Roaming will be enabled or not, if a Power Saving mode will be used.

The WNC is automatically selecting the right fields depending to the capabilities that the AP is sending to it's beacon

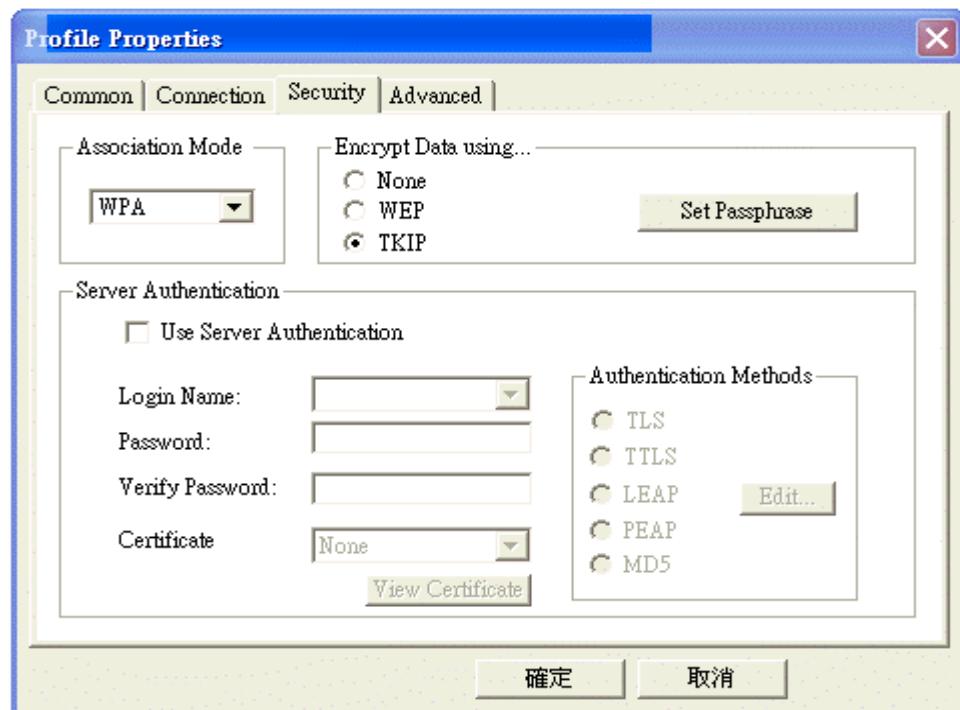
**Figure 3-9. Add New Profile-Connection**



### 3.4.3 Security Page

Following the connection page there is the Security page from which all the security features can be configured. Here you can select the Authentication Mode used by the AP, next the encryption settings if any and the type of the encryption, WEP, TKIP, AES. Also from this page you can make the configuration in case that you will use Server Authentication. Again the WNC will automatically will have make the selections according to the information that the AP is broadcasting. This does not mean that the WNC will know and fill the WEP keys or the pass phrase for the WPA, those should be filled by you.

**Figure 3-10. Add New Profile- Security**

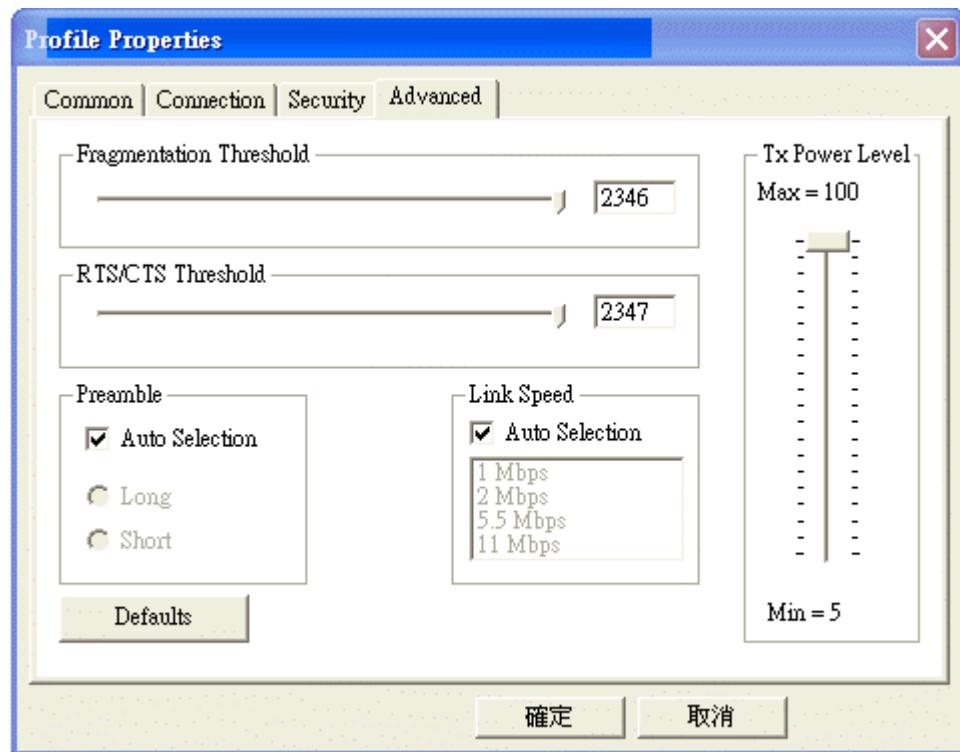


#### 3.4.4 Advanced Page

Finally there is the advanced page that you can make the final adjustments for your profile.

Here things like the Fragmentation threshold or the RTS/CTS threshold can be configured. Also, the output power of the wireless adapter, the Preamble type or the TX rate can be setup.

**Figure 3-11. Add New Profile-Advanced**



## Chapter 4. Specification

Description	2.4GHz Direct Sequence Spread Spectrum 802.11b 11Mbps Wireless USB adaptor with <b>64/128/256/512M Flash drive(Optional)</b>
Model Name	WLAN USB Adaptor
Standard	IEEE 802.11b
Host Interface	USB 2.0 compatible
Physical Dimension	87 x 22x 11.5 mm (L x W x H)
Data Rate	11/5.5/2.1Mbps, Auto Rate
Operation Voltage	5 VDC± 5%
Frequency Range	2.4-2.4838 GHz, Direct Sequence Spread Spectrum(DSSS)
Interoperability	Interoperable with Wi-Fi Certified products
Host OS	Windows 98SE/ME/NT/2000/XP
Data Security	64/128-bit WEP(Wired Equivalent Privacy) Encryption
Operating Channels	<ul style="list-style-type: none"> <li>● 1-11 United States (FCC)</li> <li>● 1-11 Canada(DOC)</li> <li>● 14 Japan (MKK)</li> <li>● 1-13 Europe(ETSI)</li> </ul>
Modulation Technique	11Mbps(CCK)/5.5Mbps(CCK)/2Mbps(DQPSK0/1Mbps(DBPSK)
Transmit Power	Normal Temp. Range: 17dBm Extended Temp Range:13dBm
Receive Sensitivity	11Mbps < -81dBm 5.5Mbps< -86dBm 2Mbps< -87dBm 1Mbps< -89dBm
Range Coverage	Open Space:100-400m Indoors: 30-100m