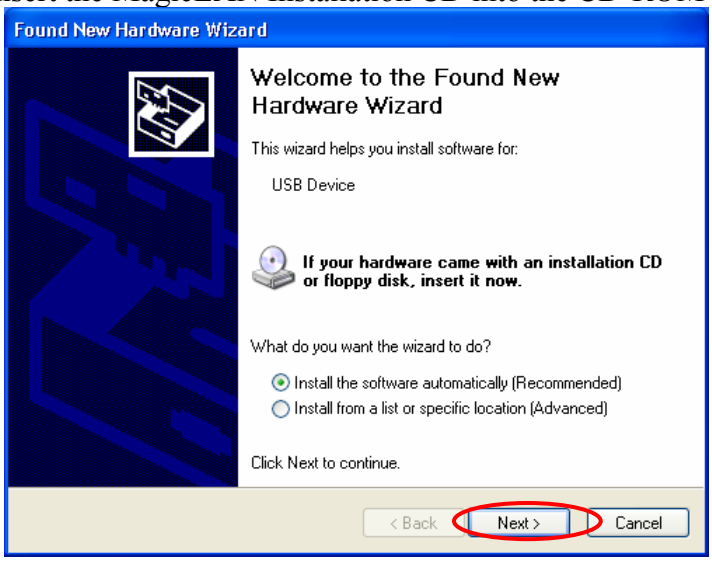
3.6 Installation Procedure of Windows XP

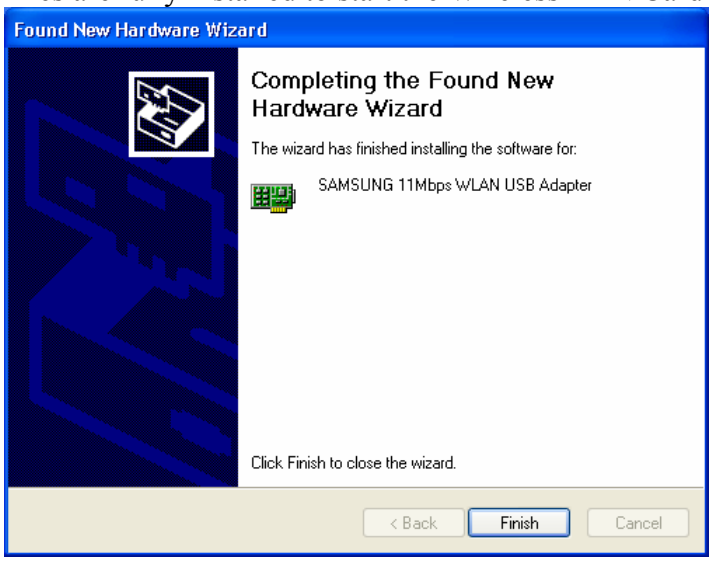
Please follow the following steps one by one in order to install the USB Adapter successfully.

< Method 1 - Inserting card first >

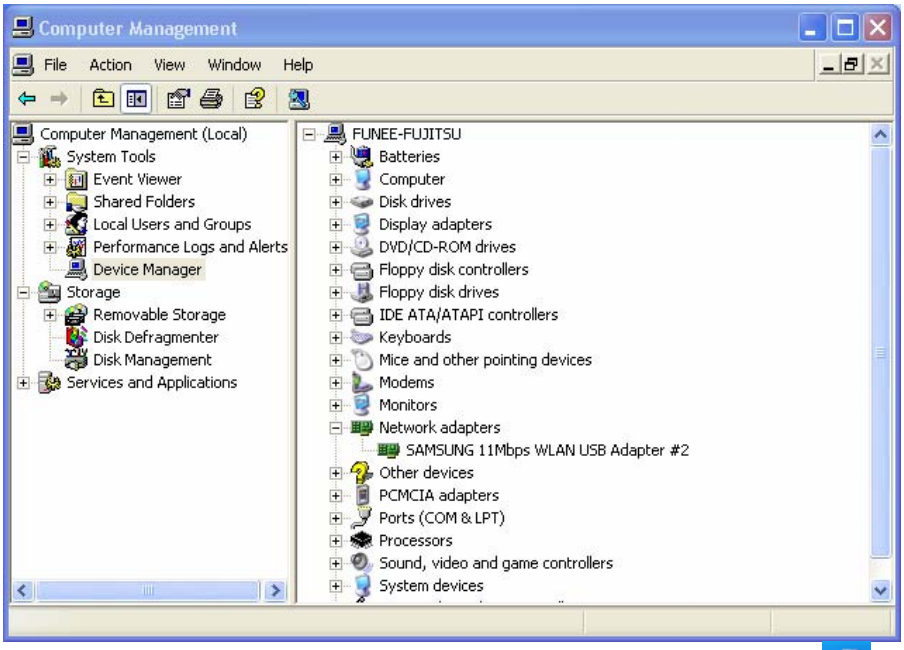
1. Insert the USB Adapter into USB slot of your computer.
2. **"Found New Hardware Wizard"** appeared and the system looks for "USB Device". Insert the MagicLAN Installation CD into the CD-ROM Drive.



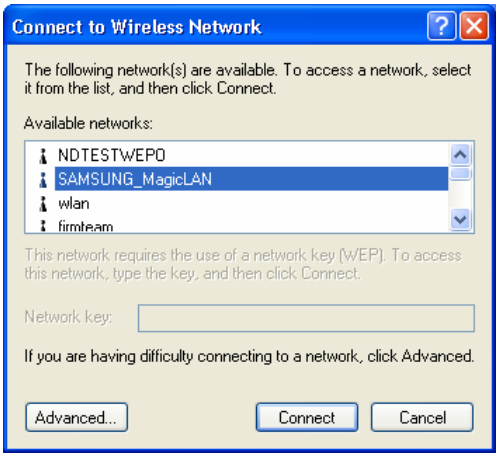
3. You can find the "SAMSUNG WLAN USB Adapter(SWL-2300)" and system will copy driver files. You can click **Continue Anyway** in the 'Hardware Installation' Message box.
4. Now driver files are fully installed to start the Wireless LAN Card's operation.



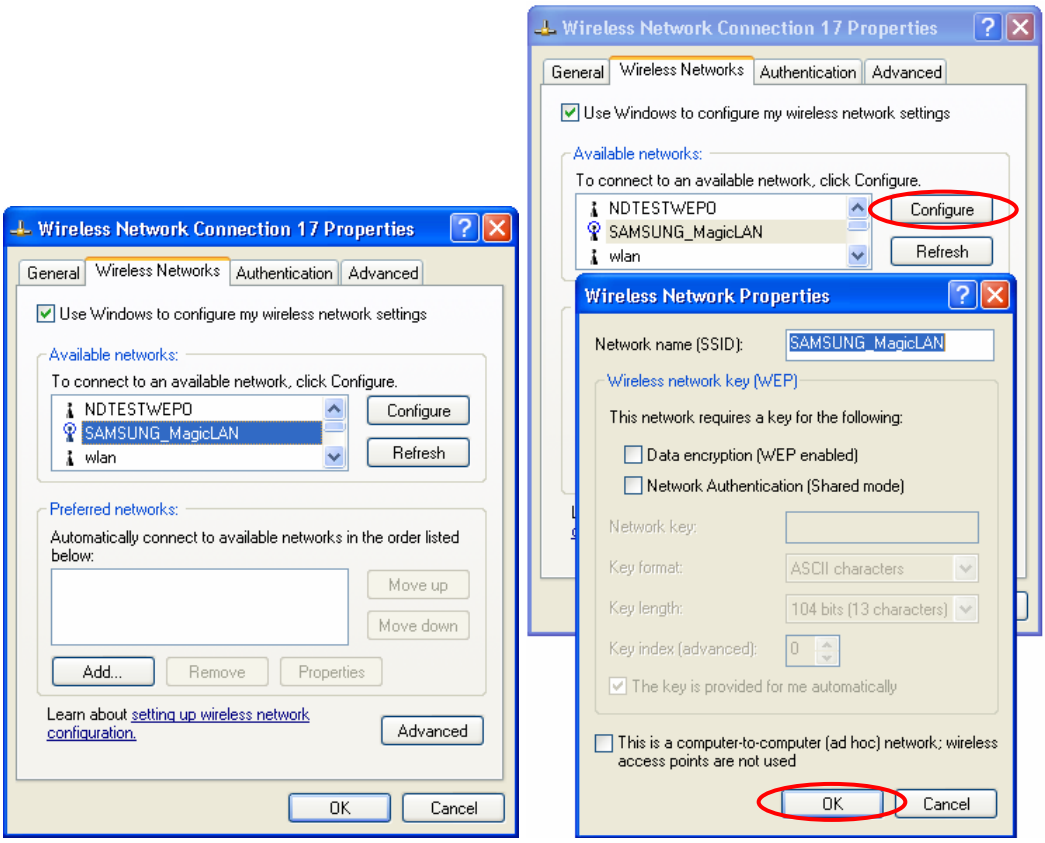
5. Check for the SAMSUNG WLAN USB Adapter(SWL-2300) on **Computer Management** in the **Administrative Tools** of the **Control Panel**. If you find the **Yellow** sign on the adapter, it shows the installation is not successful. In this case, select the adapter and click on **Remove**. Restart your computer after uninstalling the driver to make the changes effective. *(See the Adapter Removal in section 3.7)*

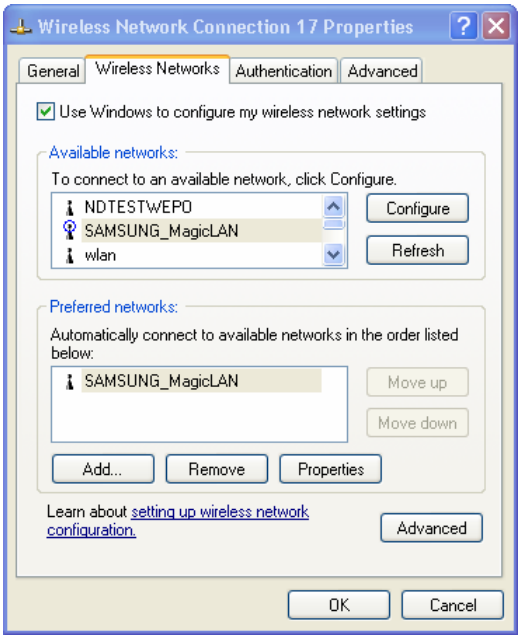


6. Of the icons displayed on the right bottom of desktop, click on icon stated **Wireless Network Connection**.

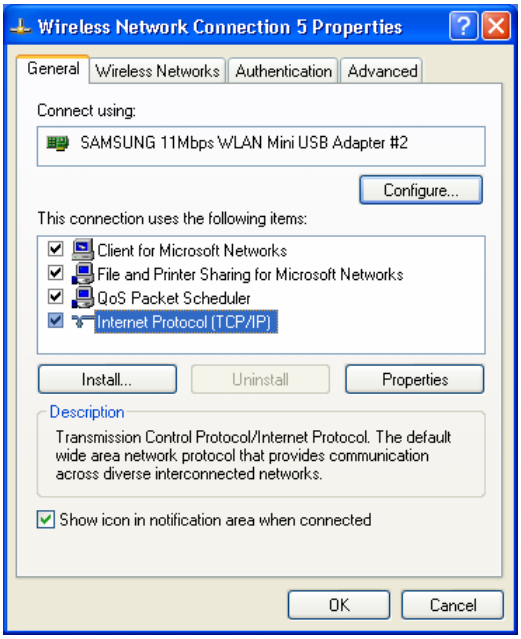


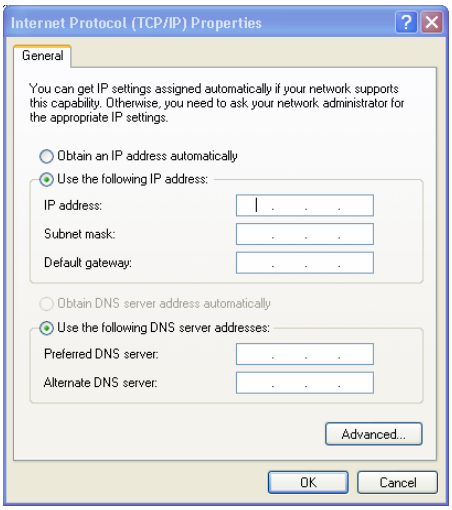
7. When you are using DHCP, just select the AP that you want to connect in the **Connect to Wireless Network** above.
8. To manually set your IP address, WEP and some other configuration, click on **Advanced** of the above picutre and then click **Configure** Available networks on the **Wireless Networks** Tab . Set the SSID and parameters to be needed to modify and then clicking on **OK.** The AP that you selected will be displayed on the Preferred Networks.





9. Next, move to the **General** Tab. After the double click the "**Internet Protocol(TCP/IP)**", set the IP value, Gateway value and DNS value and click on OK. All will be done by clicking on **OK** once more.





< Method 2 – Installing software first >

1. If you insert the MagicLAN Installation CD into the CD-ROM drive, software will launch automatically. Then, click on the '**Install MagicLAN Driver'**.

2. You can see the pictures of Wireless LAN Cards by model name.(SWL-2300U USB Adapter). Click on the model name to install it's driver.

3. Click on Operating System in the right screen in which you want to install driver.

4.After installing driver, insert Wireless LAN card. You can click **Continue Anyway** in the "'Hardware Installation' Message box.

5.The system recognize the Wireless LAN Card. If **Found New Hardware Wizard** appears, just click **Next** to install the driver files.

6.The other procedures are same to 5~9 of **< Method 1 - Inserting card first >** .

Cf.) ***The third method*** **:**

You can combine '**Method 1**' with '**Method 2**'. In other words, **after inserting card** into the computer, you can install driver and utility by **using the installshield** instead, not by the inf file. In case of Windows 2000 and Windows XP, system will recognize the card automatically during installation .

Notice that if you install a card after removing it in a Device Manager, you have to mark the check box("Do you want to scan for hardware changes?"). The function is same to the "Refresh" in ther Device Manager.

[Use of Our company's Utility in Windows XP]

You can also set up the Wireless LAN by the our company's utility program instead of Windows XP' utility program.

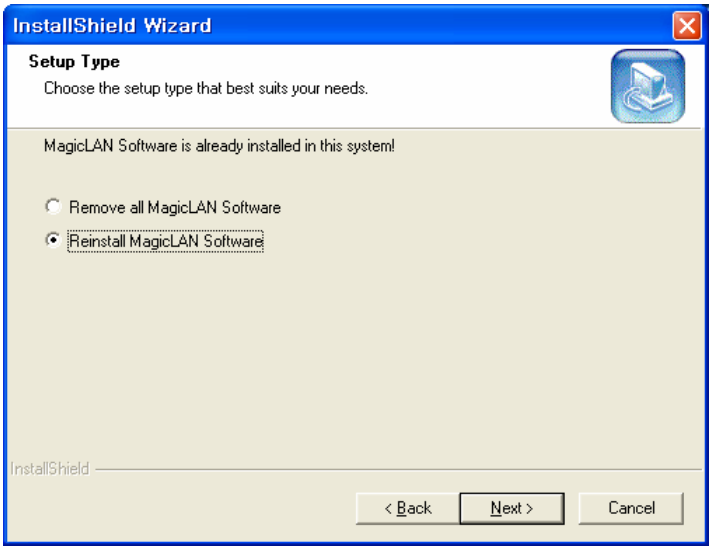
After booting the computer, you have to draw out and re-insert the MagicLAN Installation CD to be automatically installed. You can click "**Install Configuration Utility**" to install our utility. Choose the appropriate language when a context box appeared to choose utility's language.

You should reboot the computer to use our utility properly in the NT-based OSs(Winows 2000, Windows XP).

- If you click the icon on the right bottom of the desktop, you can see the current state of the Wireless LAN.
- Click on **Option** of the **General settings** on the bottom of the Utility and mark "**Manage the Wireless Control by this utility under WinXP**". For more details, refer to '**Chapter 4'** in this manual.
- If you want to use Wireless LAN Utility in the system of Windows XP , be sure that the mark of "**Manage the Wireless Control by this utility under WinXP**" of the our company's utility program is removed.

3.6 Update of MagicLAN Wireless LAN Card Driver

1. After inserting the MagicLAN Installation CD, click the Install MagicLAN Driver and select the Card and Operationg System that you want to update in.
2. If selection box appears, select 'Reinstall MagicLAN Software' between 'Remove' and 'Reinstall'.



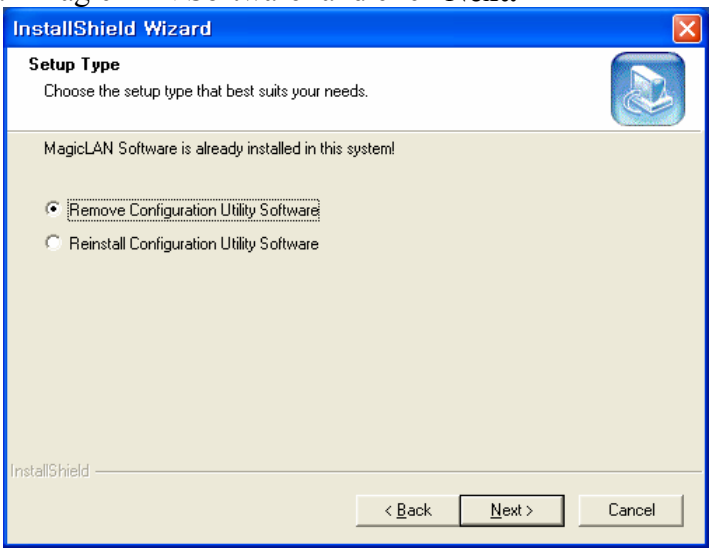
3.7 Removal of MagicLAN Wireless LAN Card Driver

(Adapter Removal)

Click like followings :

-> All Programs -> MagicLAN -> MagicLAN Driver -> Remove USB adapter.

Select 'Remove all MagicLAN Software' and click **Next.**

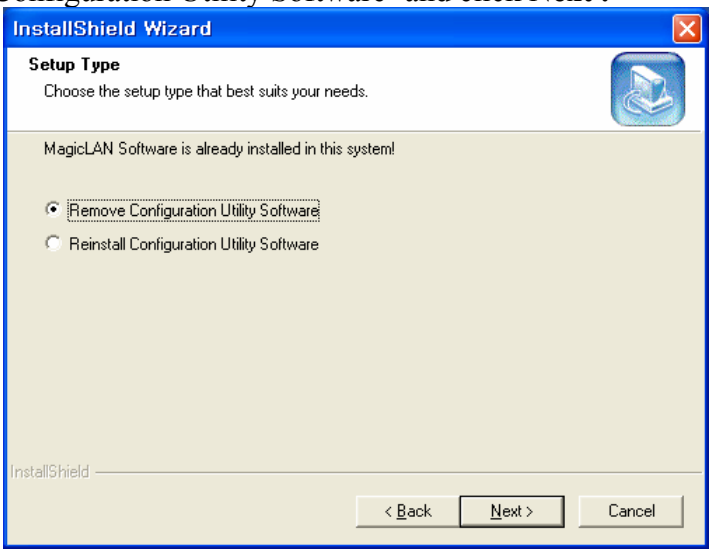


(Utility Removal)

Click like followings :

-> All Programs -> MagicLAN -> MagicLAN Utility -> Remove Utility Uninstall.

Select 'Remove Configuration Utility Software' and click **Next .**



(cf) If you want to just remove the WLAN Card from the PC, click and **Stop SAMSUNG WLAN USB Adapter(SWL-2300)** icon the right bottom of your computer screen. Then you remove the WLAN Card after clicking the OK button on the message, '**SAMSUNG WLAN USB Adapter(SWL-2300) can now be safely removed from the system'**

** - 'Safely remove hardware' icon (Windows ME , 2000, XP)

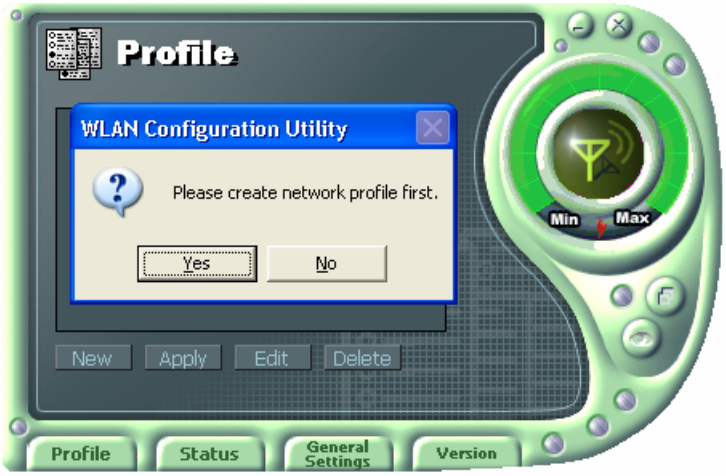
4. The Program For Setting MagicLAN

4.1 The concept of Profile

- TCP/IP settings for the fixed networks/Wired LAN have no problems, as they do not deal with the mobility. But in case of mobile equipments such as WLAN card, when WLAN client has moved from home to Office or vice-versa, the difficulty for using the old TCP/IP settings arises.
- The concept of profile makes it easy to use the same TCP/IP settings for WLAN cards regardless of the movement.
- Profile can be selected again with ease if it were saved. Saving the settings for WLAN and TCP/IP as a Profile, it is easy for user to select and use one of the saved profiles, especially, it can be used quickly without rebooting your computer while the settings for TCP/IP is updated.

4.2 Installation Procedure

First time use of WLAN on your computer needs the following settings.



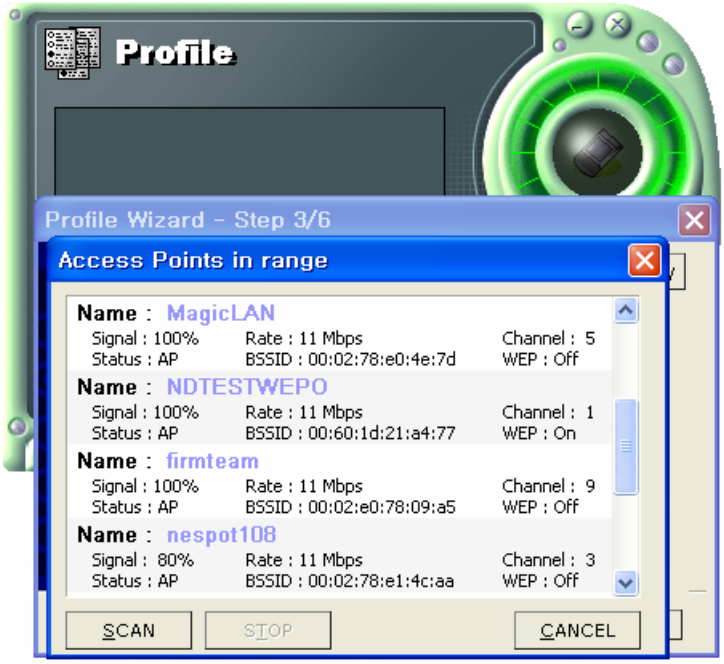
1. Insert your WLAN card. After clicking on the icon , which is found at the right bottom your computer screen, “Please create your first network profile now” window will appear. Click ‘Y’ button for yes and the following window will appear. cf) The above message will not be appeared in the Win XP. Make a Profile with clicking ‘New’ button.

2. Input a profile name in Profile Name and description for your profile name in Description and click the NEXT button, the following window will appear.

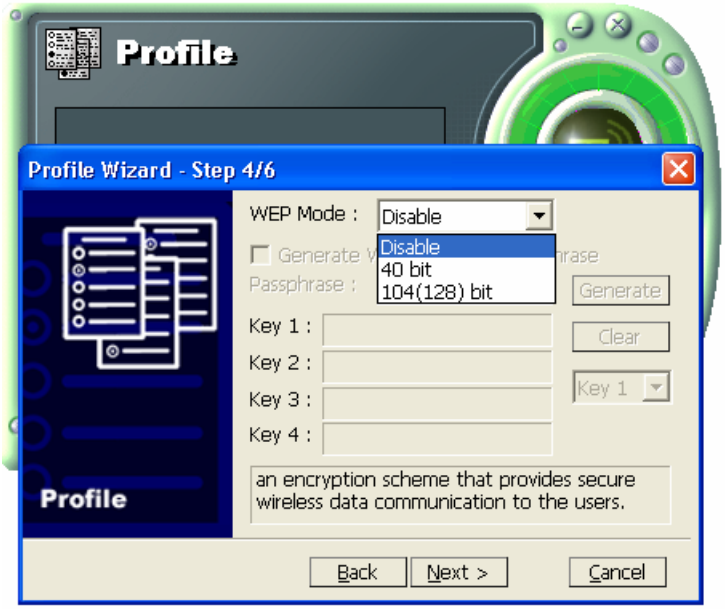
3. Select the Operating Mode to use and click the NEXT button. Default operating mode is Infrastructure.

- Infrastructure Network is the structure that the communication between Wired LAN and Wireless LAN is feasible. Wireless client is possible to access to the other Network (include Internet) via Access Point.

- Ad-hoc/802.11Ad-hoc Network support the communication among Wireless clients. Due to the support of communication among Wireless equipment, Ad-hoc Network doesn't need Access Point. (cf. 802.11 ad-hoc is satisfied with the 802.11 specification)



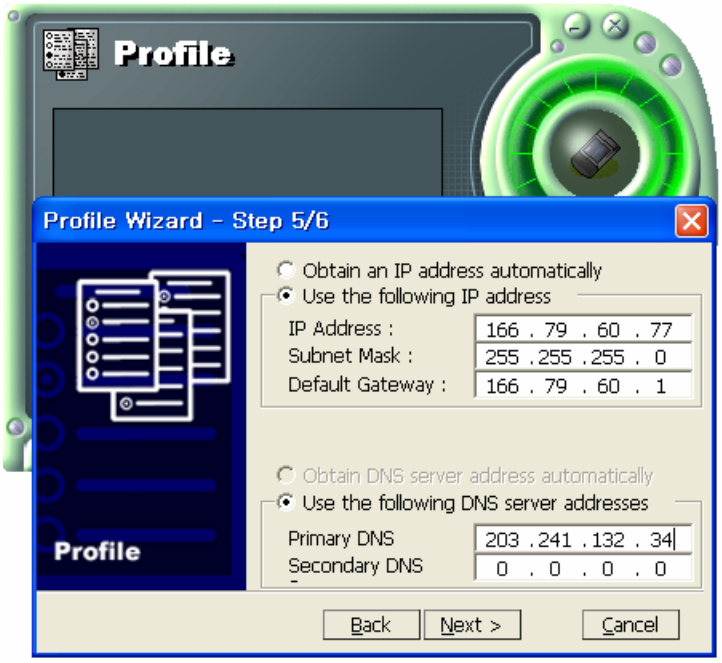
4. If you clicked on the Survey, the above window will appear showing you Access Points or Stations (Ad hoc) that are able to connect now. Select the AP that has the highest signal to use as an SSID.



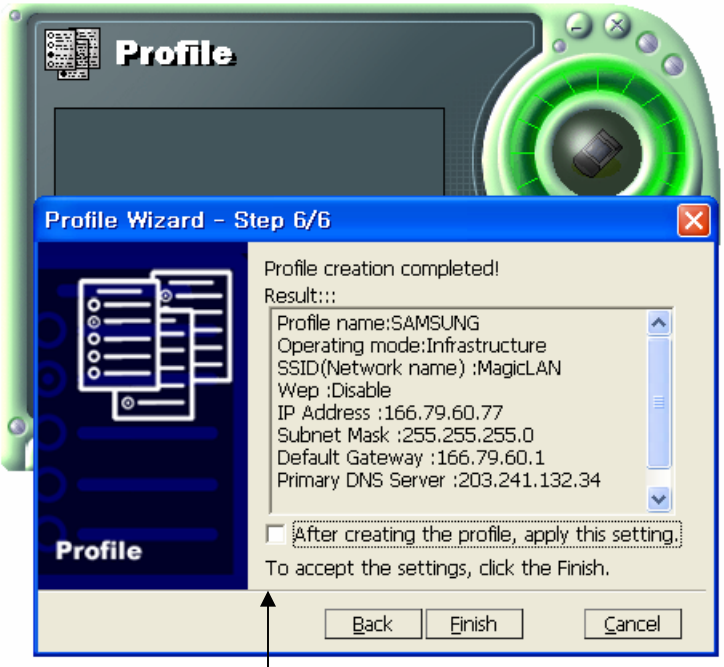
5. Select the WEP Mode and Click the Next button.

- WEP Mode

- This is security tool to protect your DATA from unauthorized users.
- To use the function of WEP, The WEP key settings for client must be same to that of AP in the Infrastructure Mode, and the WEP key settings must be same for all clients in the Ad-hoc/802.11Ad-hoc Mode.



6. Enter a valid IP address. IP address can be allocated automatically. (cf. it is limited to users who use the DHCP server or ADSL connection). As only checked in "Manage TCP/IP together with Profile", IP address can be controlled in the Profile. This menu does not appear under MS Windows NT. Click NEXT to see the following window.



7. Showing you the settings selected so far. Click the Finish button.
Check on this box. It will work on the system after clicking the Finish button.

8. Click the Profile name shown in the above window click the Apply button. The settings will be over. If the IP address entered in the system settings is different than the IP address selected under profile name, system IP settings will be changed without rebooting your system.

5. The main configuration of Program

During the installation of your SAMSUNG WLAN Card, configuration utility is also installed. You can see the icon at the right bottom of your screen. Double clicking that icon will show you the screen as shown below.

The following describes the meanings of variables shown in the WLAN configuration.

- **Profile:** The arbitrary designation by user. It is the profile name to distinguish each Profile. So when you set the Profile, you would better choose the name that can send the contents it has.
- **Link Status**: you Link Status shows a client connection state with AP (In Infrastructure mode) or with other clients (In 802.11Ad-hoc Mode).
- **SSID**: It represents the name of a group consisting of WLAN users only. It is also called ESSID.
- **Operating Mode:** There are three Modes. Infrastructure Mode (the connection among clients through an AP), 802.11Ad-hoc/Ad-hoc Mode (direct connection among clients)
- **BSSID**: It shows the Physical Address of WLAN card inserted in AP in the Infrastructure Mode and the Random Generation value in the 802.11 Ad-hoc Mode.
- **Channel**: It shows channel number in use for communication between AP and client or among clients. When the Network Mode is set to the Infrastructure or 802.11Ad-hoc/Ad-hoc Modes, it searches a channel automatically.

- **WEP:** Security tool to be used for encryption/decryption of data to be exchanged between clients or between clients and AP. It denies the authorized access to network if WEP is enabled.
- **Power Saving:** The Power Saving Mode that prolongs the life of battery.
- **Physical Address:** It is the Physical address of WLAN card being used by user. This is also the MAC address of the WLAN card.
- **IP Address:** Address used to send data from one computer to another to create the network of several computers. IP address is unique for every network card installed on a computer to identify it from other computers.
- **Subnet Mask:** It is an address that enables along with an IP Address to share a network Address within the LAN of company.
- **Gateway:** The network point playing a role as a gateway to enter the other network.
- **DNS:** It is the system that transforms the name of an Internet domain to the corresponding IP Address. IP Address is actually needed to locate a computer/server on the Internet.
- **Adapter Name:** It shows the kind of WLAN card that the user is using now.

The following description is the fundamental installation of WLAN Card.

5.1Profile

You can modify your wireless environment four buttons on the bottom of Utility.

5.1.1 The ‘New’ button

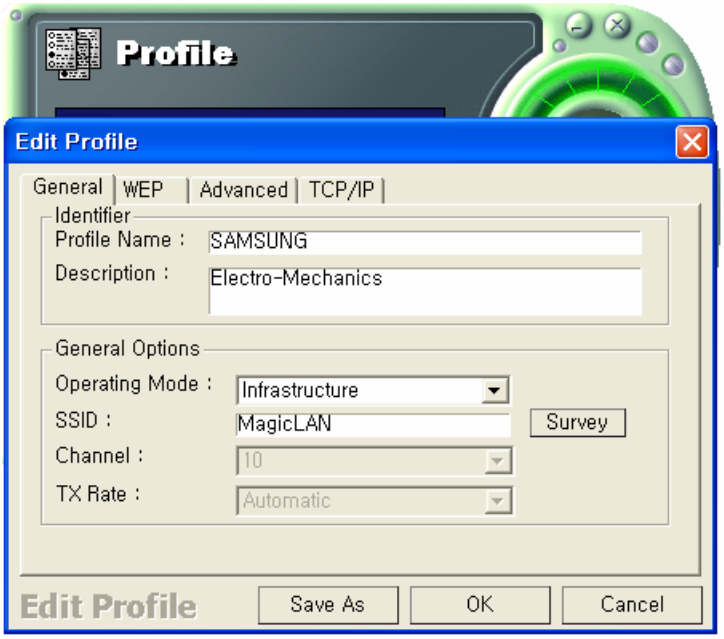
Clicking the New button, you can add or make a new Profile.
(Refer to ‘The Program For Setting MagicLAN’ in the Chapter 4)

5.1.2 The ‘Apply’ button

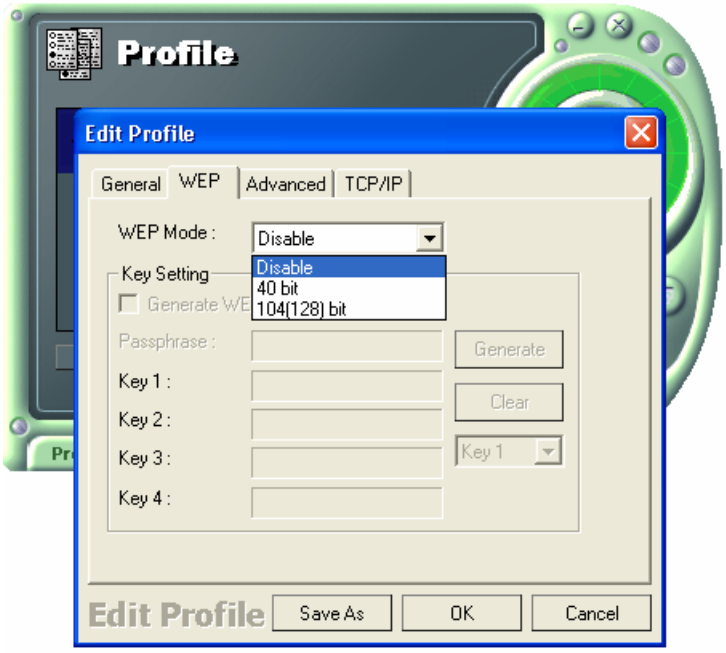
Select and click a Profile to be used, then the saved or modified profile settings will be used for configuring your WLAN card.

5.1.3 The ‘Edit’ button

Clicking the Edit button or the Profile name that was created previously, you can modify that Profile.

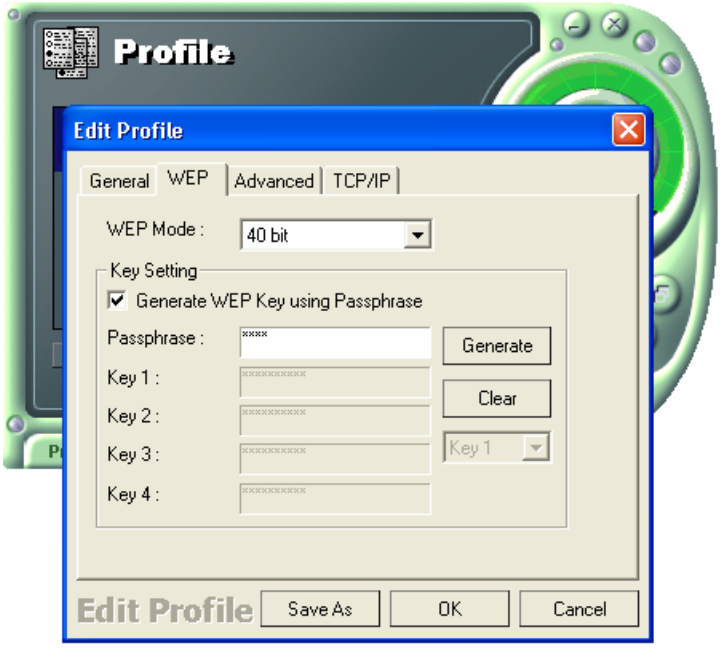


- Click the WEP button to set the security.



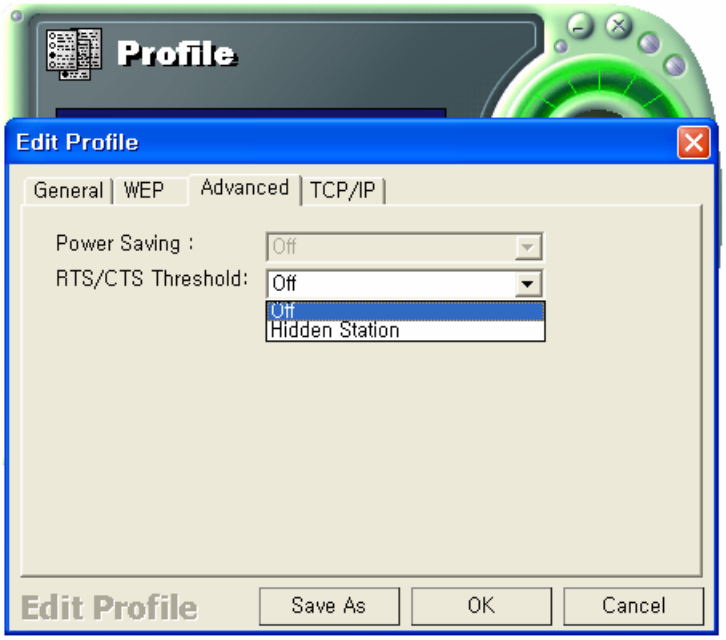
1. First of all, select the '40 bit'.

2. Check a "Generate WEP Key using Passphrase" box and input a certain value (ex. test1 etc) in the 'Passphrase' and click the Generate button. Then it will make four values of keys automatically.



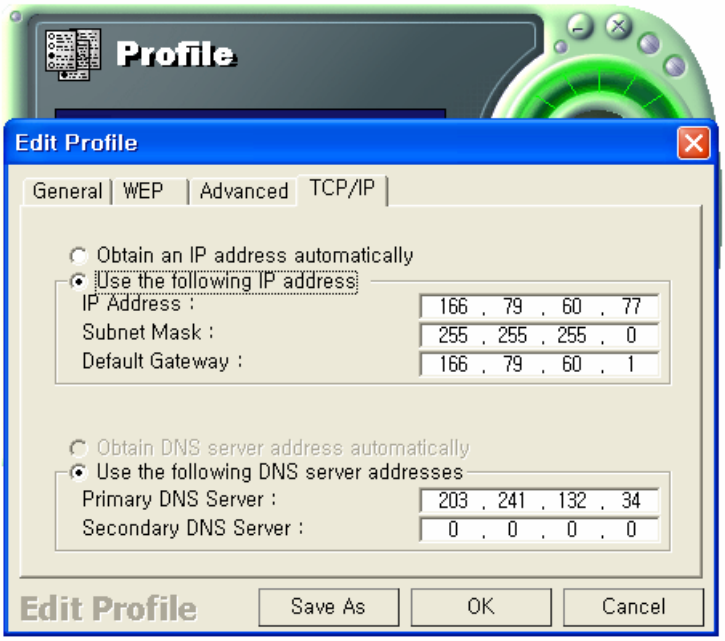
3. Then you set the same value to the WEP of AP. (cf. If you use the WLAN made from other company, you must set the same values in the four keys)

- You can set the 'Power Saving' and 'Threshold' with clicking the Advanced button.



1. Power Saving Mode saves the Battery. (cf.. it can give a lowing of efficiency according to 802.11Specification)
2. RTS/CTS Threshold Mode is better used in the place surrounded with much RF interference.

- Click the TCP/IP to input the IP directly or receive IP automatically.



5.1.4 The 'Delete' button

Select a profile and click on Delete button to remove that profile.

5.2 Status

5.2.1 The ‘Current Status’ button

It shows the current state of the WLAN card. (Refer to the ‘ The main configuration of Program’)

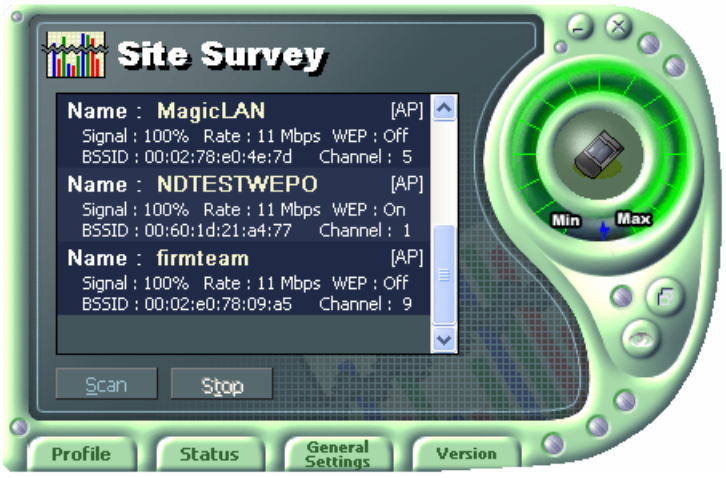
5.2.2 The ‘AP Status’ button

It shows the current state of AP. (You can see the IP address changed by the Get Status button)

- **Model:** It shows the name of model.
- **Version**: It shows the version of AP.
- **Description:** It is the name of AP designated by AP manager during AP setup.
- **NAT**: It shows whether the private IP address (NAT server) is enabled or not.
- **DHCP**: It shows whether the DHCP sever is enabled or not.
- **Clients number**: It shows the number of users currently connected with the AP.
- **Internet connection**: It is the connection type with outer network (LAN, ADSL, ISDN etc.).
- **IP Address**: It shows whether the IP address is from DHCP server or NAT server.
- **Connected Status**: In case the connection type with the outside network is of ADSL/CABLE type, it shows the connection state between AP and ASP service.
- **IP**: It is the IP address of the AP.

5.2.3 The 'Site Survey' button

It finds you the AP/Station that are connected currently. (It takes a few seconds to be done)



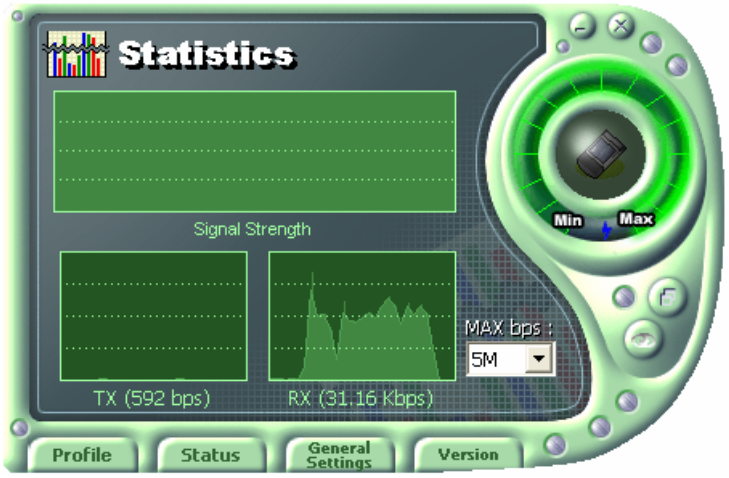
- **Signal**: It shows the connection state of Stations with AP or Master Station.
- **Rate**: It shows the Tx Data rates.
- **WEP:** It shows security state with the AP.
- **BSSID**: It represents the Physical Address of AP in the Infrastructure Mode and

the Random Generation value in the 802.11 Ad-hoc Mode.

- **Channel**: It shows the currently used channel number.

5.2.4 Statistics

It shows the state of the data transmission. (You can regulate the graph to be see clearly with the settings of the MAX bps on the right side of bottom)



5.3 General Settings

5.3.1 The 'DHCP' button

- It works when it is enabled.
- The Get Status button shows the updated information obtained from the DHCP server.
- The Release DHCP button releases the IP Address that was received from the DHCP

server.
- The Renew DHCP button is for receiving the IP Address from the DHCP server.

5.3.2 The ‘Options’ button

- If you disable the check from the ‘Sound Enable’, you cannot hear the sound whenever you click.
- If you disable check from the ‘Manage TCP/IP together with profiles’, you cannot control TCP/IP in the utility. You can just modify TCP/IP in the Network Neighborhood.
- If you check the ‘Do not show the Profile Wizard Welcome message’, ‘Welcome message does not pop up in case of set or add the Profile.

5.4 Version

- You can see the Driver and Firmware version for your WLAN card currently in use.
- Click the Website to get more information about WLAN.

6. Troubleshooting

To make the installation of SAMSUNG WLAN Card more users friendly, we have suggested following the installation steps one by one as listed in the section 3 and section 4. Still you encounter some problems while installing the WLAN Card or you want to confirm whether your card is installed properly or not, we have listed the procedure for checking the various components after you have installed the card.

Q. Wireless connection icon shows in the Task bar and **Wireless connection unavailable** message appeared.

It's because property setting is wrong. Please check these contents.

A1. Check if there's right network name in the **Available networks** in the client PC. Network name should be same in the infrastructure mode(using AP) as well as in the Peer-to-Peer mode. Wireless LAN's network name distinguish a uppercase letter frome a lowercase letter.

A2. Check if you are using the same WEP string. And you must use the same WEP key. Please ask network manager about the Access Poing's WEP string and key.

A3. Check if you are in the range of the Access Point.

A4. Reinstall the driver using MagicLAN Software CD if driver dosen't work.

Q. Samsung's tray icon in the task bar shows red color .

A. This is same to above question. Please refer to the above A1~A4.

Q. Link Status is excellent, but I can't connect to the network.

If TCP/IP setting is not properly established , you can't connect to the network.

A. Check TCP/IP setting.

When you are using DHCP server, if allocated IP address is insufficient, you can't use network. In a case like this, please ask the network manager.

Q. A system identify the Wireless LAN Card, but I can't connect the network.

If there's many network adapter in the system, wireless LAN may not work properly.

A. Open Device Manager and set **disable** the unused network adapter(PPP adapter ,etc.) by clicking right mouse.

Q. I want to use Samsung client utility in the Windows XP. But, we can't set up correctly.

A. Windows XP provides each configuration utility of LAN and Wireless LAN by OS in itself. In case of this, you must select the "**Manage the Wireless Control by this utility under WinXP**" in the Option menu of General Settings in the Samsung client utility.

Q. I can't see the TCP/IP informations in the MagicLAN Utility.

A. It's related to a file, IPHLPAI.dll. Please reboot the system.

There maybe some systems that don't show their IP, Subnet Mask, Gateway, DNS, Adapter Name.

Q. When we use IPX/SPX protocol with NETWARE CLIENT, we can't connect to the network game like STARCRAFT and local server.

A. In case of Windows 2000, please click Start – Settings – Control Panel – Network and Dial-up Connections(double click)'. Click a right mouse button on the Local Area Connection menu and select Properties. Then, you need to double-click NWLink IPX/SPX/NetBIOS Compatible Transport Protocol and then change Frame Type **from Auto Detect to Ethernet 802.3**.

In case of Windows 98, please click **Start – Settings – Control Panel – Network**(double click)'. Then, you need to double-click **IPX/SPX-compatible Protocol -> SAMSUNG …** and then change Frame Type **from Auto to Ethernet 802.3** in the Advanced tap.

Please refer to the website: http://www.magiclan.com/product/magiclan/support/faq.htm about other detailed questions.