EZY09-D

User Manual

Copy Right Announcement

Trade Names

Ezy09 and/or other products and/or services referenced here in are registered trademarks, trademarks or service marks of EzyNet. Other names are or may be trademarks of their respective owners.

Statement of Conditions

The information contained in this manual is subjected to change without notice. EzyNET shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual or equipment supplied with it.

Warranties and Disclaimers

All EzyNET products purchased from EzyNET or through any of EzyNET's authorized resellers are subject to following warranty and product liability terms and conditions.

Exclusive Warranty

EzyNET warrants that the product hardware it supplies and the tangible media on which any software is installed, under normal use and conditions, will be free from significant defects in materials and workmanship for a period of fourteen (14) months from the date of shipment of a given Product to Purchaser (the "Warranty Period"), EzyNET will, at its sole option and Purchaser's sole remedy, repair or replace any defective Product in accordance with EzyNET standard RMA procedure.

Disclaimer

(a) UNITS OF PRODUCT (INCLUDING ALL THE SOFTWARE) DELIVERED TO PURCHASER HEREUNDER ARE NOT FAULT-TOLERANT AND ARE NOT DESIGNED, MANUFACTURED OR INTENDED FOR USE OR RESALE IN APPLICATIONS WHERE THE FAILURE, MALFUNCTION OR INACCURACY OF PRODUCTS CARRIES A RISK OF DEATH OR BODILY INJURY OR SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE ("HIGH RISK ACTIVITIES"). HIGH RISK ACTIVITY MAY INCLUDE, BUT ARE NOT LIMITED TO, USE AS PART OF ON-LINE CONTROL SYSTEMS IN HAZARDOUS ENVIRONMENTS REQUIRING FAIL-SAFE PERFORMANCE, SUCH AS OPERATION IN THE NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS, AIR TRAFFIC CONTROL, LIFE SUPPORT MACHINES, WEAPON SYSTEMS OR OTHER APPLICATIONS REPRESENTING A SIMILAR DEGREE OF POTENTIAL HAZARD. EzyNET SPECIALLY DESCLAIMS ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR HIGH RISK ACTIVITIES.

(b) PURCHASE'S SOLE REMEDY FOR BREACH OF THE EXPRESS WARRANTIES ABOVE SHALL BE REPLACEMENT OR REFOUND OF THE PURCHASE PRICE AS SPECIFIED ABOVE, AT EzyNET'S OPTION. TO THE FULLEST EXTENT ALLOWED BY LAW, THE WARRANTIES AND REMEDIES SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO WARRANTIES, TERMS OR CONDITIONS OF MERCHANTIBILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, CORRESPONDANCE WITH DESCRIPTION, NON-INFRINGEMENT, AND ACCURACY OF INFORMATION GENERATED. ALL OF WHICH ARE EXPRESSLY DESCLAIMED. EzyNET WARRANTIES HEREIN ONLY TO PURCHASER, AND ARE NOT EXTENDED TO ANY THIRD PARTIES. EzyNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF ITS PRODUCTS.

(c) EzyNET SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY PURCHASER'S OR ANY OTHER THIRD PERSON'S MISUSE, NEGLIGENCE, IMPROPER INSTALLATION, OR

IMPROPER TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING, OR OTHER HAZARD.

Limitation of Liability

(a) EzyNET SHALL NOT BE LIABLE TO THE PURCHASER OR TO ANY THIRD PARTY, FOR ANY LOSS OF PROFITS, LOSS OF USE, INTERRUPTION OF BUSINESS OR FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER ARISING UNDER BREACH OF CONTACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE AND WHETHER BASED ON THIS AGREEMENT OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

(b) TO THE EXTEND PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL THE LIABILITY FOR DAMAGES HEREUNDER OF EzyNET OR ITS EMPLOYEES OR AGENTS EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCT BY PURCHASER, NOR SHALL THE AGGREGATE LIABILITY FOR DAMAGES TO ALL PARTIES REGARDING ANY PRODUCT EXCEED THE PURCHASE PRICE PAID FOR THAT PRODUCT BY THAT PARTY (EXCEPT IN THE CASE OF A BREACH OF A PARTY'S CONFIDENTIALITY OBLIGATIONS).

Electronic Emission Notices

This device complies with Part 15 of the FCC rules, ETSI 300-328 and CE. Operation is subject to the following two conditions:

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

FCC Radio Frequency Interference 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 when the equipment is operated in a residential environment, not withstanding use in commercial, business and industrial environment, not withstanding use in commercial, business and industrial environments. This equipment generates, uses and can radiate radio frequency energy

and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. 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 or more of the following measures:

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

Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

To comply with FCC RF exposure requirements in section 1.1307, a minimum separation distance of 2m (79 inches) is required between the antenna and all persons.

Antenna Installation

WARNING: It is installer's responsibility to ensure that when using the outdoor antenna in the United States (or where FCC apply), only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204.

The installer should configure the output power level of antennas, according to country regulations and per antenna type.

Important Notice

This manual is applicable to EzyNET EZY09-D unit and is delivered subject to the following conditions and restrictions:

- This manual containing proprietary information belongs to EzyNET. Such information is supplied solely for the purpose of assisting explicitly and properly authorized user of EZY09-D equipment
- No part of this content may be used for any other purpose, disclosed to any person of firm or reproduced by any means, electric and mechanical, without the express prior written permission of EzyNET.
- The text and graphics are for the purpose of illustration and reference only. The specifications on which they are based are subject to change without notice.
- The software described in this document is furnished under a license. The software can be used or copied only in accordance with the terms of that license.
- Information in this document is subject to change without notice.
- Corporate and individual names and data used in example herein are fictitious unless otherwise noticed.
- EzyNET reserve the right to alter the equipment specification and description in the publication without prior notice. No part of this publication shall be deemed to be part of any contract or warranty unless specially incorporated into such contract or warranty.
- The information contained herein is merely descriptive in nature, and does not constitute a binding offer for sale of product described herein.
- Any changes or modifications of equipment, including opening the equipment not expressly approved by EzyNET will void the equipment warranty and any repair thereafter shall be charged for. It could also void user’s authority to operate the equipment.
- Some of the equipment provided by EzyNET and specified in this manual, is manufactured and provided by third parties. All such equipments must be installed and operated in full appliance with the instructions provided by such manufacturers as attached to this manual or provided thereafter by EzyNet or the manufacturers. Non-compliance with such instructions may result in serious damage and/or bodily harm and/or void user’s authority to operate the equipment and/or revoke the warranty provided by such manufacturer.

Contacting EzyNET Technical Support

Should you need assistance beyond the scope of this manual, please contact your EZY09-D local reseller or distributor. If they can not solve your problem, feel free to contact EzyNET Technical Support Department. The support representative can help you to solve any problem that can not be solved by your local reseller.

When requesting support, please have the following items available:

- Configuration of system, including models of EzyNET equipment used and other applicable equipment and connecting cables.
- Hardware and firmware version of EzyNet equipment.
- Configuration and statistic counters as viewed in the web administration utility.
- Description of the problem encountered.

Table of Contents

Section 6

Support

Section 1

Introduction

The EZY09-D (IEEE802.11b, 11Mbps Access Point) is a long range, low cost, high performance outdoor wireless Access Point, which provides 2.4 GHz wireless access service to an Ethernet backbone. With the ezy.net Easy Setup Wizard, the system configuration is made easier than ever. This document describes steps required for the initial setup of the AP and the installation and usage of the Easy Setup Wizard.

1.1Package Contents

Make sure that you have received the following with the EZY09-D Kit:

- 1 x outdoor access point unit
- 1 x Ethernet cable
- 1 x Power adapter
- 1 x Power Injector
- 1 x CD (firmware, drivers, user guide, and software)

1.2 System Requirements

- Operating System: Windows 98/Me, Windows 2000, Windows NT4.0 (With Service Pack 4 or later) or Windows XP
- Desktop PC or Notebook with CD-ROM drive.
- An Ethernet port or a wireless device.

1.3 EZY09-D Outdoor Access Point

Access Point Features

- RFMD's Direct Sequence Spectrum (DSSS) radio chip set.
- Supports 11, 5.5, 2, and 1 Mbps rates.
- WEP encryption/decryption (64/128bits)
- WPA/PSK (TKIP)
- Interfaces directly to 10/100 IEEE 802.3 Ethernet networks.
- AES.
- Firmware is stored in a flash memory and can be upgraded remotely.
- Configurable through Ethernet.
- Power and Wireless LED indicators.
- NAV management

- ACK Procedure
- Retransmission of unacknowledged frames
- Authentication Algorithm (Open System, Shared Key)
- RTS/CTS Handshake
- Duplicate detection and recovery
- Beacon generation
- Fragmentation and reassembly

1.4The EZY09-D Access Point

Figure 1-1 shows the EZY09-D RFMD Access Point based on e-zy.net AT76C509 internetworking device and RFMD RF front-end.

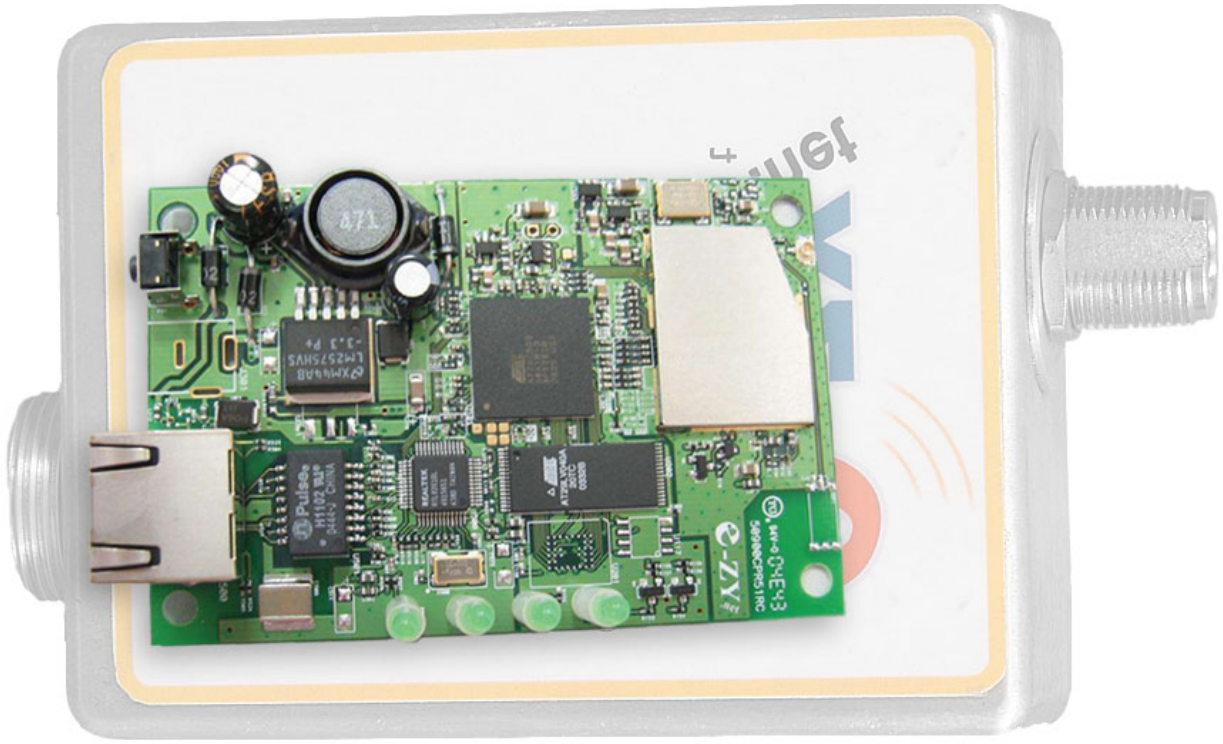

Figure 1-1, EZY09-D AT76C509 Access Point – EK board

Section 2 Setting the IP Address

The first step in using the EZY09-D RFMD Access Point is to set its IP address. This procedure can be done in three different ways: using the arp/ping commands. The Easy Setup Wizard, and the Smart Configuration Editor.

2.1 Using arp/ping Commands

In order to set the IP address, you first need to know the AP MAC Address (the MAC address of the AP is indicated on the back of AP board). Then, follow the steps below to give the AP a temporary IP address at beginning (Step A) and then save the IP address through the Easy Setup Wizard (Step B) or the Smart Configuration Editor (Paragraph 2.2).

STEP A:

1. Connect an Ethernet station and the AP on the same subnet. The simplest way to accomplish that is to connect the AP and the Ethernet station to the same hub. You need to check if the station IP Address and the Subnet mask are configured properly. Also, the new IP Address for the AP must correspond to the Subnet mask.

Figure 2-1 Using arp/ping Commands

2. Open an MS-DOS Prompt window and enter a static route in the arp table for the new IP address you want to assign. Use the arp –s command to do that:

Arp –s “new-IP-Address” “AP-MAC-Address”

For example: arp –s 10.170.254.27 0-04-25-02-00-10

3. Ping the AP, using its new IP address.

For example: ping 10.170.254.27

If you get a ping reply, then the IP address has been temporarily set. In order to set it permanently you need to proceed to Step B without powering off the AP.

Step B

1. Open the Easy Setup Wizard. For installation instructions, see Section 4 “Installation Procedure”.

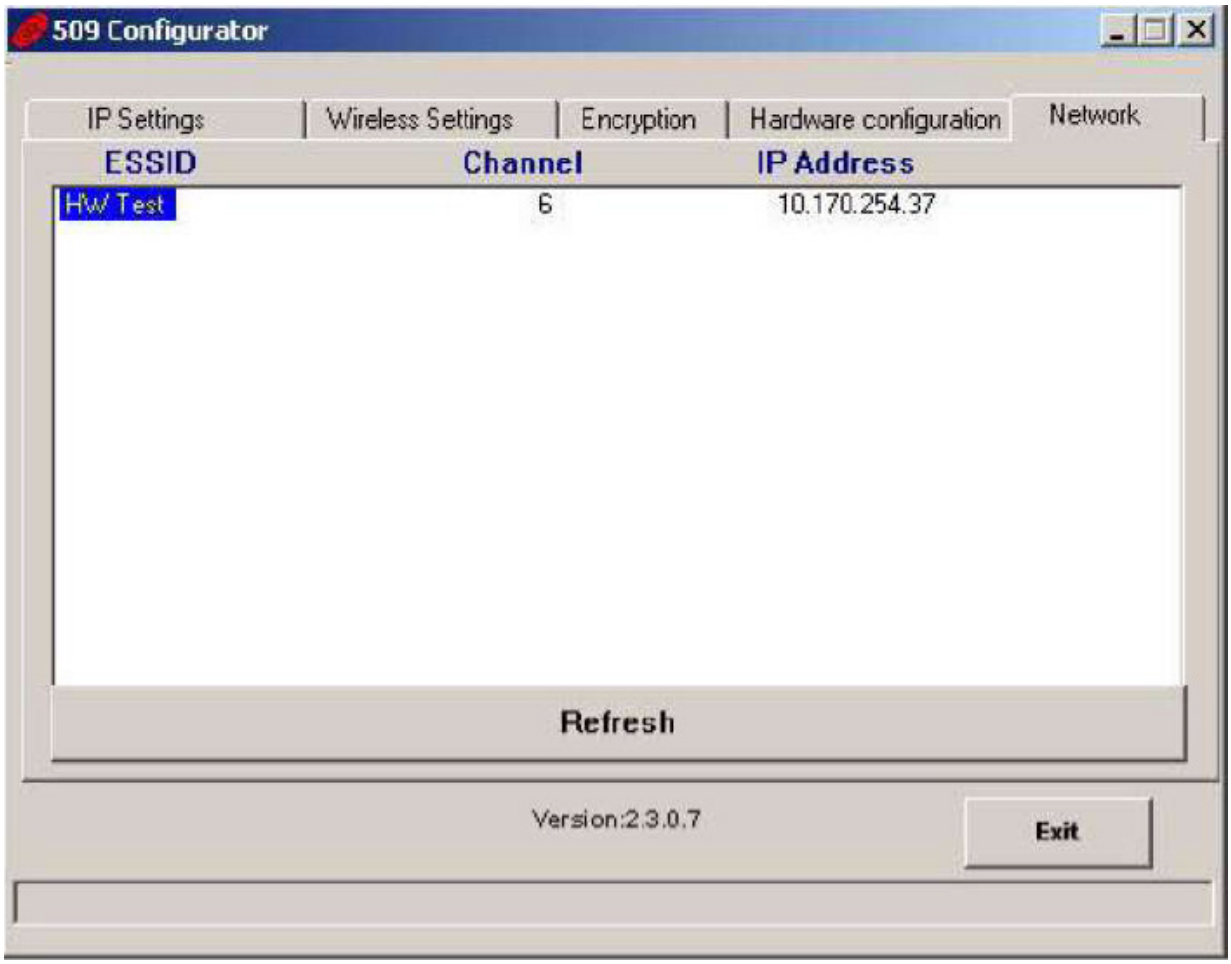

Figure 2-2. Easy Setup Wizard – Connect to Access Point

2. Connect to the AP by selecting the 509AP with the temporary IP address you set with the “arp” command. In the Authentication window that appears select the access level you prefer. The available options are “User”, “Administrator” and “Manufacturer”. After you enter the correct password for the access level that you have selected you are able to change tab and proceed with the change of the IP Address of the EZY09-D AP. For more detailed information about the Easy Setup Wizard, see section 5.

2.2 Using the Smart Configuration Editor

Another way to configure the IP address of the EZY09-D Access Point is to user the Smart Configuration Editor. Following the steps below in order to configure the IP address of the AP:

1. Install the Smart Configuration Editor. For more details see the Smart

Configuration Editor User Guide.

2. Run the Smart Configuration Editor and select the “Open Image” button (figure 2-3).
3. After the image file is loaded, select the “IP Address” and press the “Modify” button in order to set the new IP Address. The new setting will take effect by pressing the “Save Changes” button.

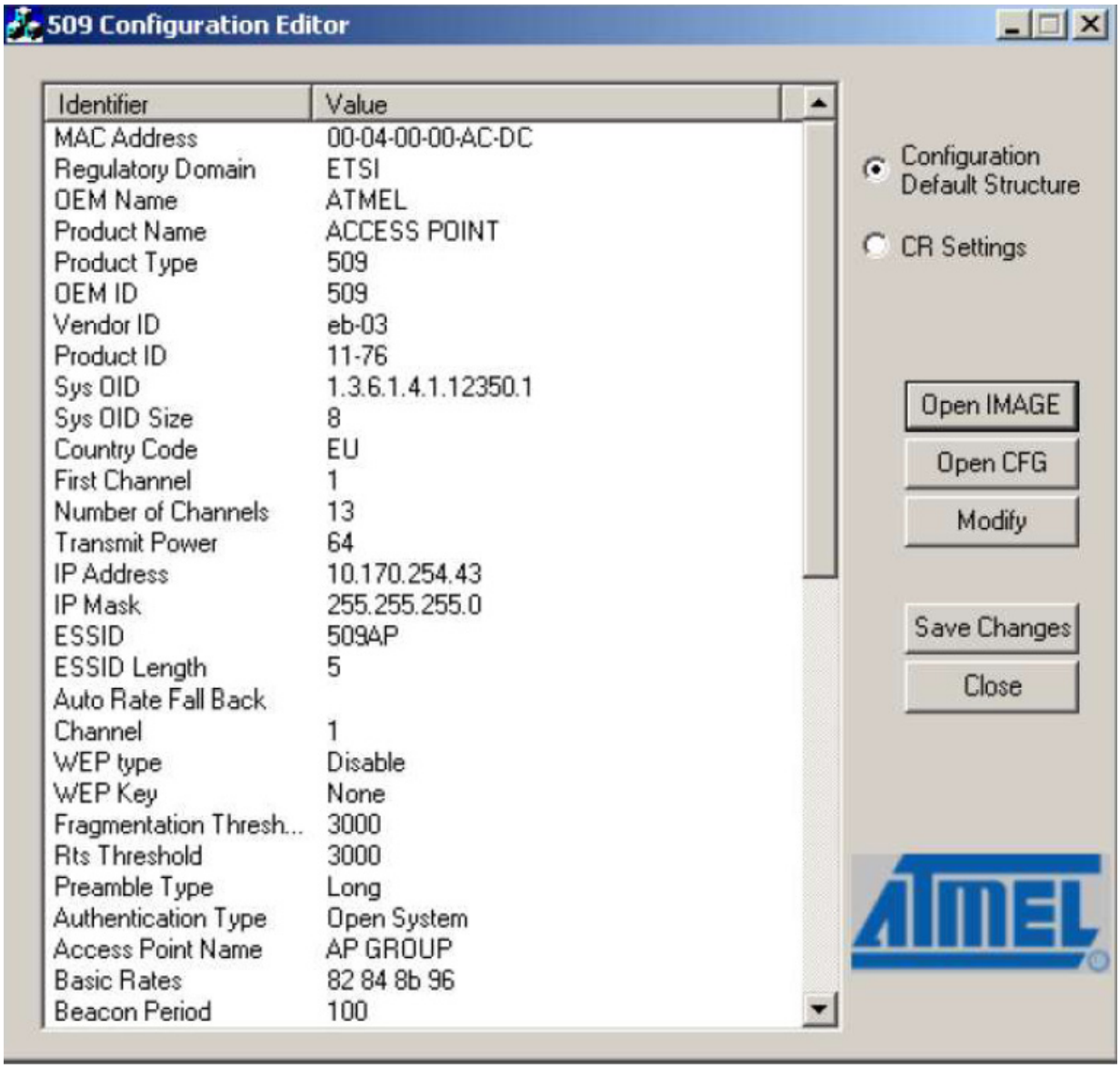

Figure 2-3. Smart Configuration Editor

2.3 Using the DHCP. The EZY09-D Access Point has DHCP support through its DHCP client option.

In order to user this option you must see the Easy Setup Wizard and make sure that the “DHCP Enable” option is checked (Figure 2-4).

If DHCP client is enabled, the AP can get it’s IP address dynamically from the network DHCP server. In figure 2-4 you can see the IP Address field that displays the AP address which the IP Mask utilized by the network DHCP server. Select the Primary Port, which is the interface that determines the DHCP server, and press “Fresh”. If the network server failed to give an IP address to the AP, then the AP IP Address is the default one.

Figure 2-4. AP Configuration (SNMP) Bridge IP Configuration – DHCP Enable

Section 3 Installation Overview

This section provides a quick step by step guide on how to install the Easy Setup Wizard. Please follow the steps described below and refer to the appropriate sections for further details:

- Power On the computer
- Install the application
- Insert the give Installation CD into your CD-ROM drive. Select the Utilities folder.
- Locate the executable file “setup.exe” and double click it.
- Follow the installation instructions from the InstallShield Wizard by pressing the “next button.
- Provide the destination path of where the application will be installed. To set the path of your choice select Browse and then Next.
- Finish the installation.
- Power up and connect the EZY09-D to Ethernet port.

Refer to section 4 for more details on the installation and configuration under Microsoft® Windows®. Also, refer to section 5 for detailed instructions for the usage of the Easy Setup Wizard.

Section 4 Installation Procedure

The procedure described in this section can be used in order to install the Easy Setup Wizard under Microsoft® Windows®.

4.1 What you will need

In this section it is assumed that you have a basic working knowledge of Microsoft Windows. During the installation, you may be prompted to load operating system files from the Windows installation disk. Please keep this disk handy. You will also need the CD provided with the kit.

4.2 Application Installation

The setup procedure described below installs the AP Configuration utility:

1. Insert the provided Cd into your CD-ROM drive and locate the executable file

"setup.exe" under "AP_Utilities/AP_Configuration_xxxx".

2. Follow the installation instructions from the InstallShield Wizard by pressing the "Next" button (Figure 4-1).

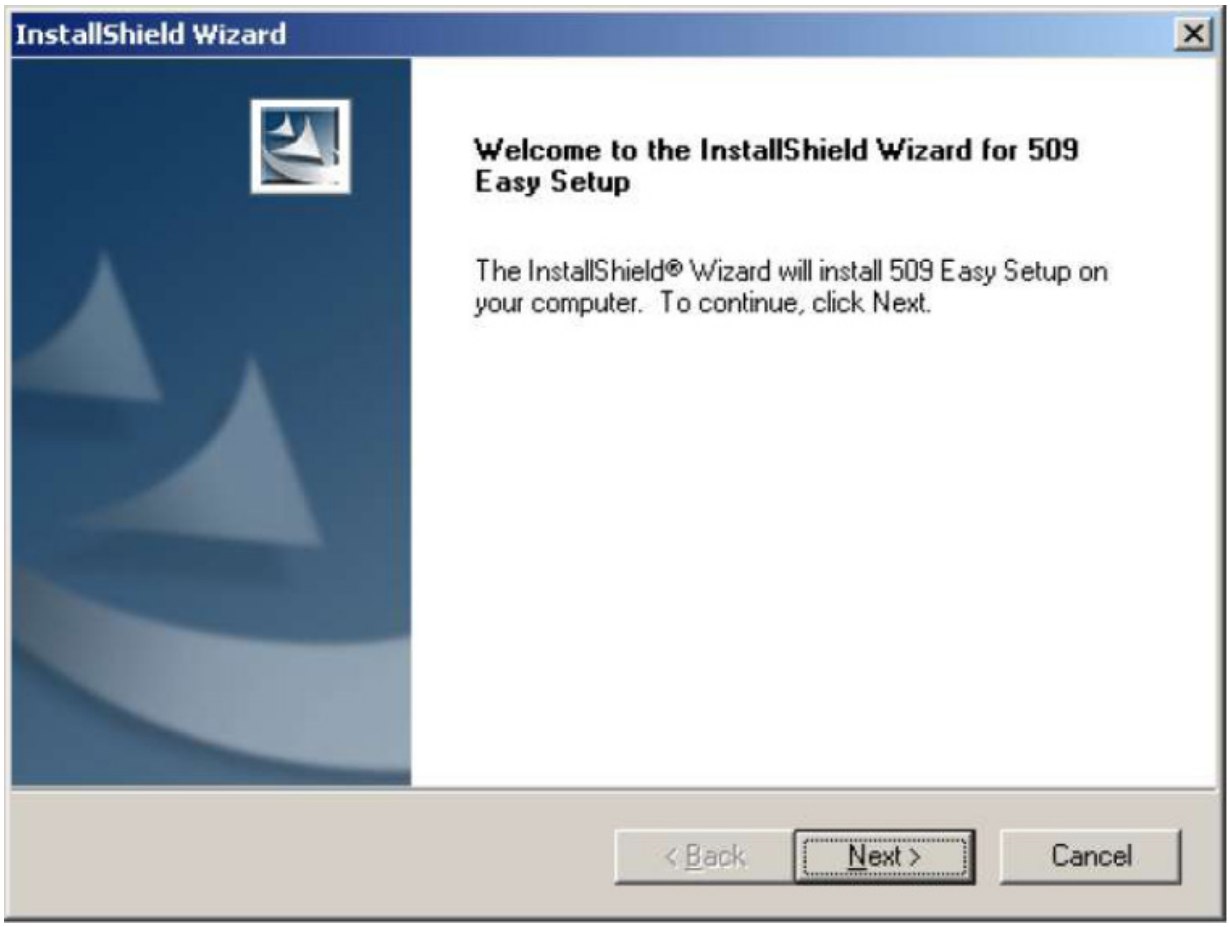

Figure 4-1. InstallShield – Start

Figure 4-2. InstallShield – Licence Agreement

3. Next, click “Yes” in order to agree with the License Agreement.

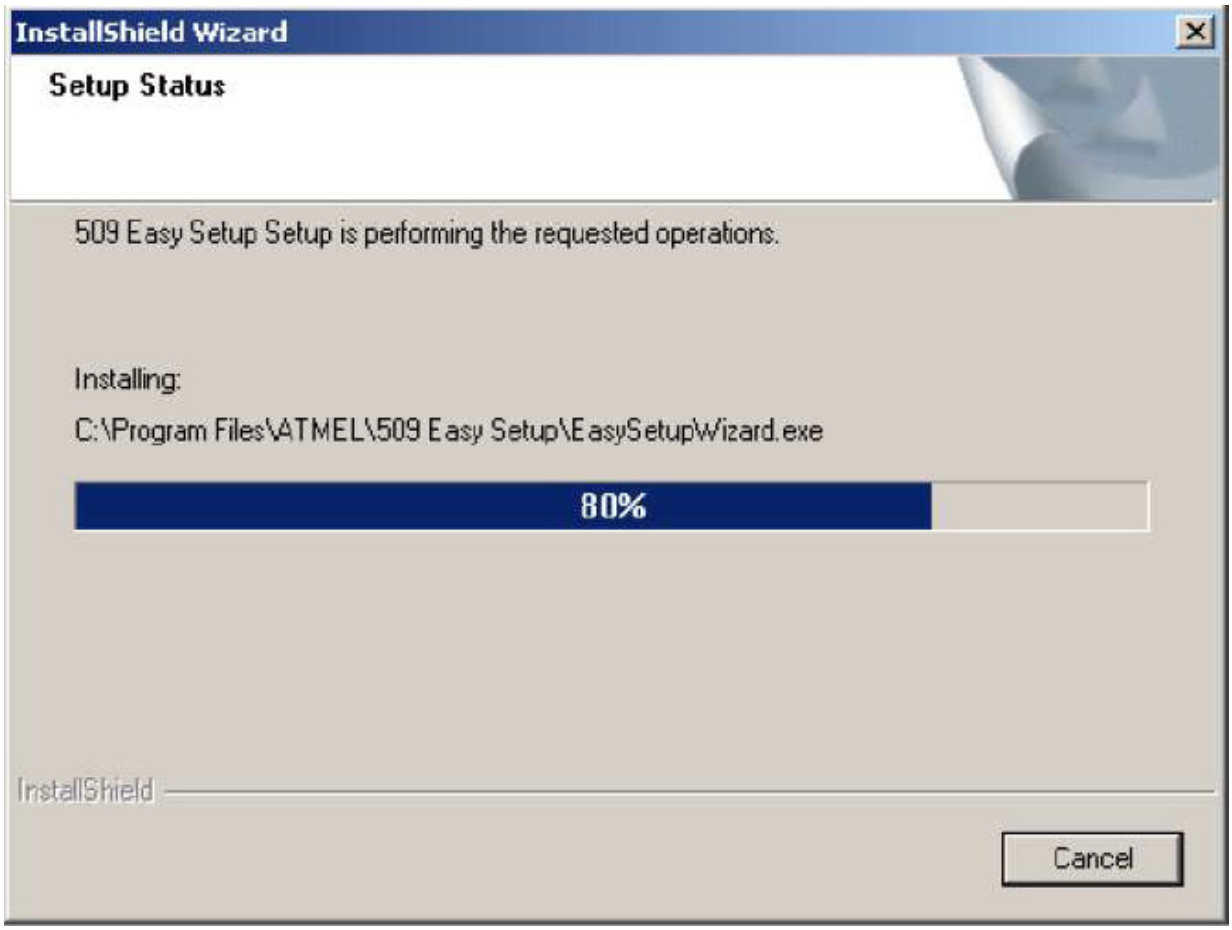

Figure 4-3. InstallShield – Setup Status

4. Continue to follow the instructions from the InstallShield wizard and clicking the "Next" button, in order to complete the installation (Figure 4-3)

The Installation procedure for the Easy Setup Wizard is now completed, you can proceed to section 5.

4.3 Uninstall Procedure

In order to uninstall the application from Windows, follow the procedure described below:

1. Open the "Add/Remove Programs" icon under the Control Panel.
2. Select the "509 Easy Setup" option and click the "Change/Remove…" button under the Control Panel to begin the un-installation procedure (Figure 4-4)

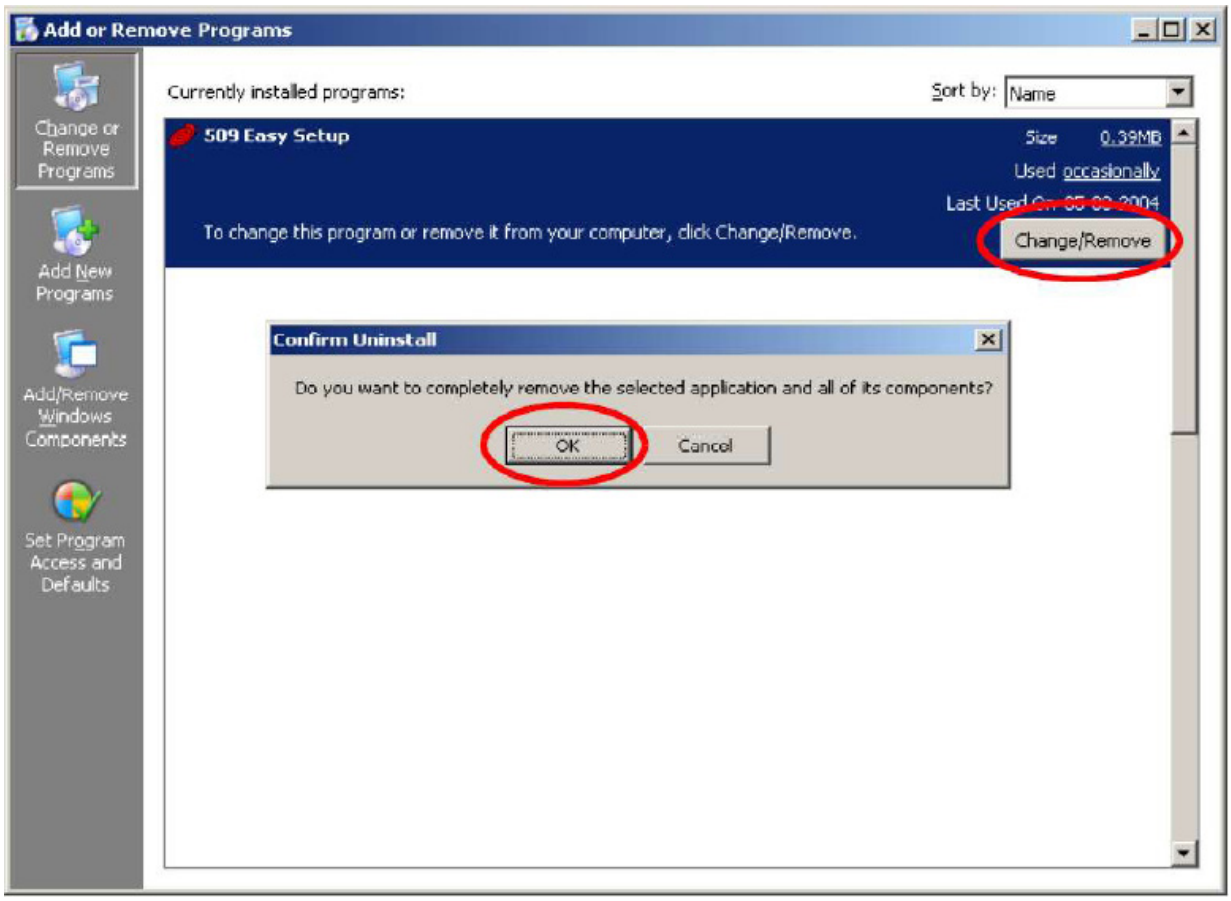

Figure 4-4. Control Panel – Add/Remove Programs

Last, in the next window that will appear click “OK” in order to finish the removal of the Easy Setup Wizard.

4.4 Software Upgrading

If you have a newer version of the Easy Setup Wizard, then in order to upgrade it you must first remove the version that you are currently using (see paragraph 4.3 Un-installation Procedure) and then install the new version by following the installation instructions in Installation Procedure (see paragraph 4.2)

Section 5 Easy Setup Wizard

The Easy Setup Wizard is used for the configuration of an EZY09-D AP. In this section you can see a description of the Easy Setup Wizard.

5.1 Easy Setup Wizard Window

The Easy Setup Wizard has several tabs that are used to configure and control a EZY09-D AP.

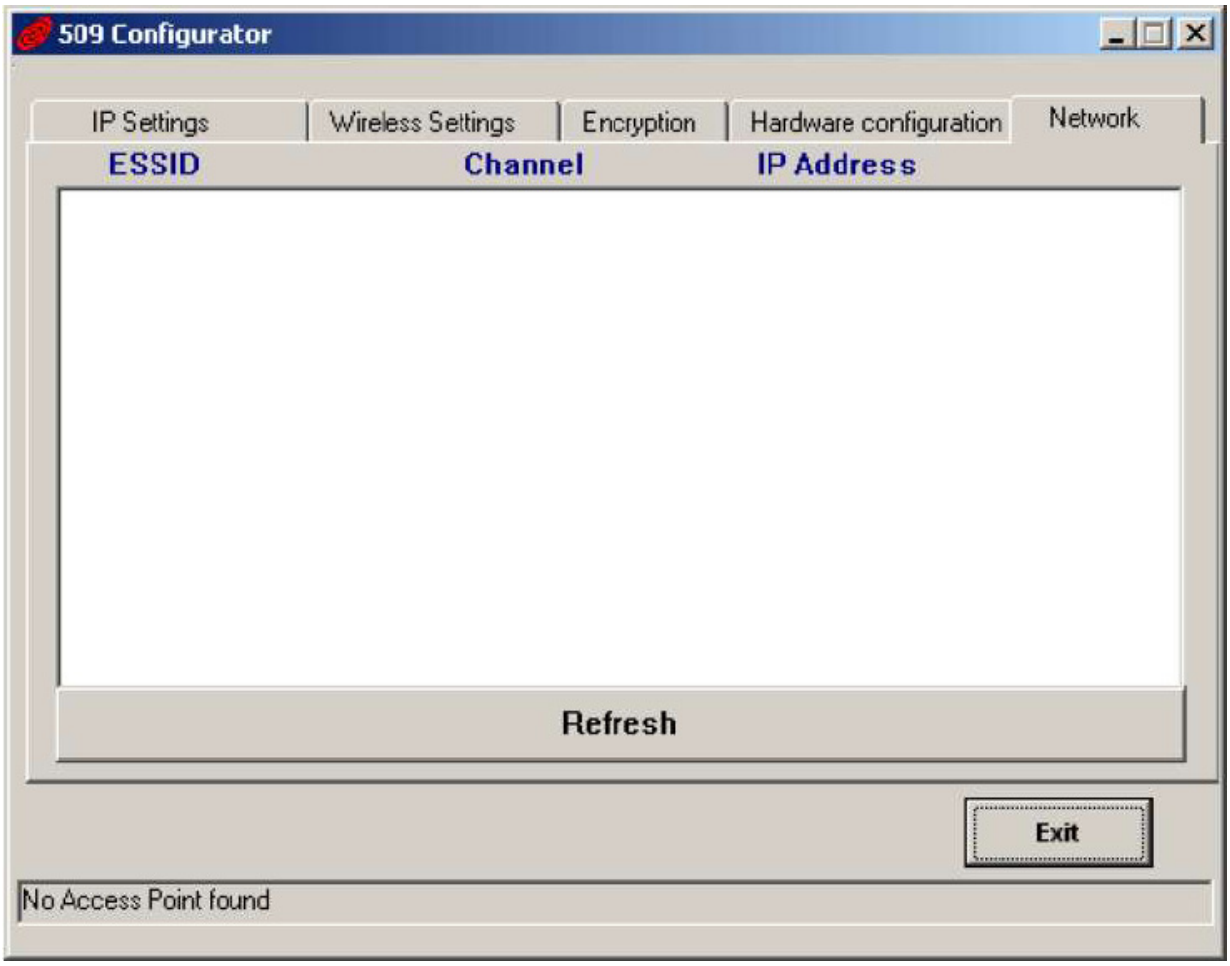

Figure 5-1. Easy Setup Wizard

As you can see at Figure 5-2, the available tabs are:

- IP Settings
- Wireless Settings
- Encryption
- Hardware Configuration

- Network

At each different tab you can set/change several configuration options of the EZY09-D AP. In the following paragraphs you can find the description of the available options in each tab.

5.2 Network Tab

From the Network tab of the Easy Setup Wizard, you can choose the EZY09-D AP that you want to configure. At this tab if you have more than one EZY09-D APs you will see them in the list under the Network tab.

When starting the Easy Setup Wizard, it is scanning automatically for any available EZY09-D APs. For every EZY09-D AP that it found, you will see a line to the network tab with some basic information about it like the ESSID, Channel, and it's IP address.

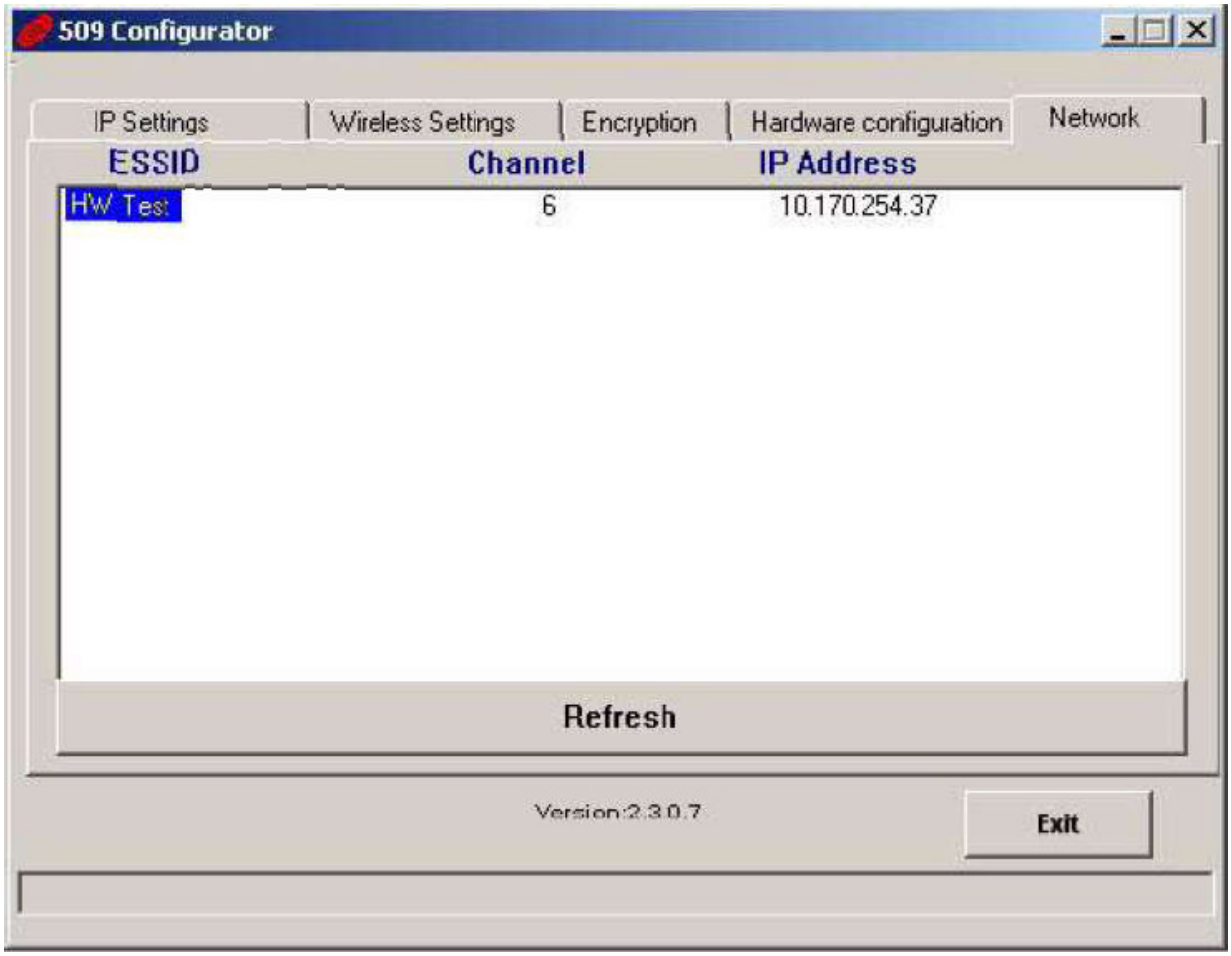

Figure 5-2. Easy Setup Wizard – Network Tab

After you see the EZY09-D AP that you want to change its configuration, you can select it from the list with the available EZY09-D APs.. Once you click to the line with desired AP, then you will see the authentication window. (Figure 5-3)

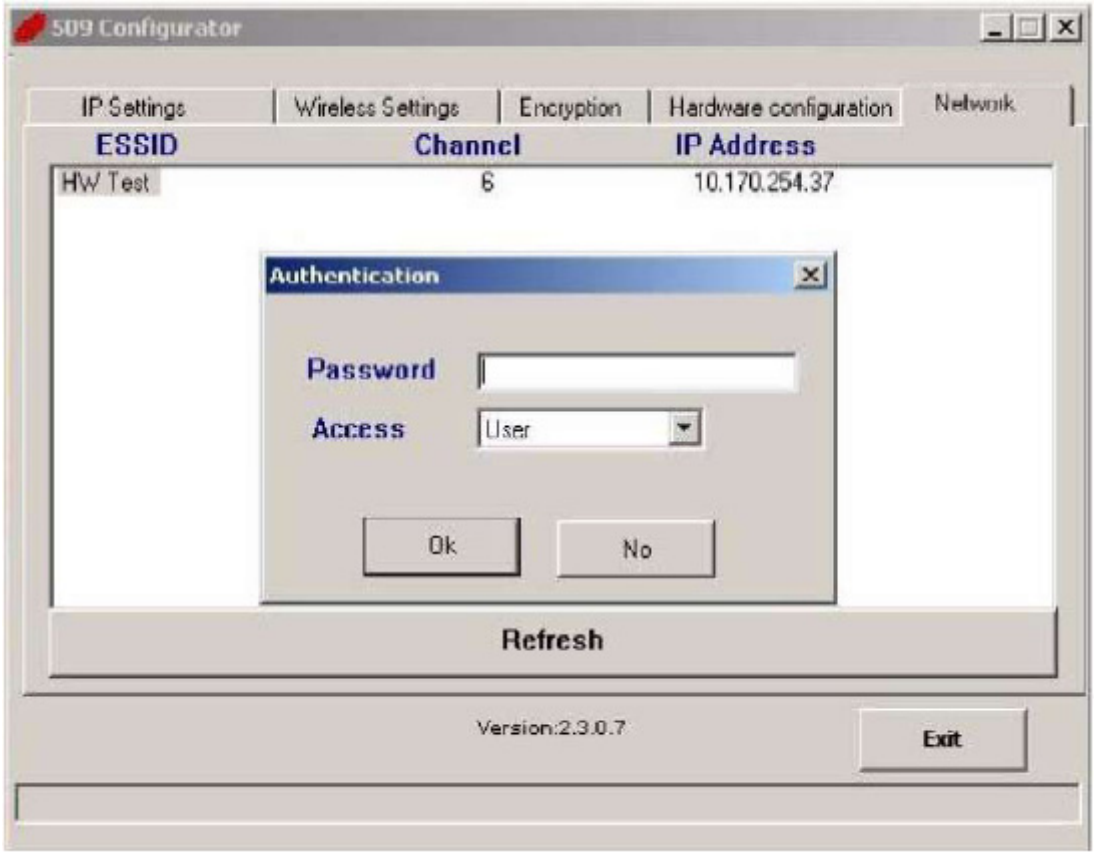

Figure 5-3. Easy Setup Wizard – Authentication

Depending on the Access level that you select, you have access to different options that you are allowed to change. For each Access level, you need different password. The available access levels for the EZY09-D AP are:
User – View only.
Manufacturer – OEM only access for Radio control and tests

After you enter the correct password for the access level that you have selected, you are able to change tab and proceed with the changes to the EZY09-D AP.

5.3 IP Setting Tab

At the IP Setting tab, you can see/change several configuration options of the EZY09-D.

Such as IP, Subnet Mask, Gateway. Below are explained the available fields in this tab.

Figure 5-4. IP Settings Tab

MAC Address: This is a read-only field that is showing the MAC address of the EZY09-D AP

IP Address: In this field you can see/change the IP address of the AP, if the DHCP Enable option is used, this IP address is assigned by a DHCP Server.

Subnet : In this field, you can see/change the Subnet Mask of the AP, if the DHCP Enable option is used, this Subnet Mask is assigned by a DHCP Server.

Gateway: In this field you can see/change the Gateway that will be, if the DHCP Enable option is used. This gateway is assigned by a DHCP Server.

IP Filtering: If IP Filtering is enable, on ly the IP protocol packets will pass through the WLAN and any other protocol will be filtered out..

DHCP Enabled: If this option is enabled, then the DHCP client is enabled and the IP

Address field displays the IP address that was dynamically assigned to the AP by the network DHCP server.

Primary Port: This field is setting the Primary Port that will be used to search for the DHCP server.

5.4 Wireless Setting Tab

From this tab you can adjust the wireless settings of the AP. Things like the SSID, the channel are set in this tab.

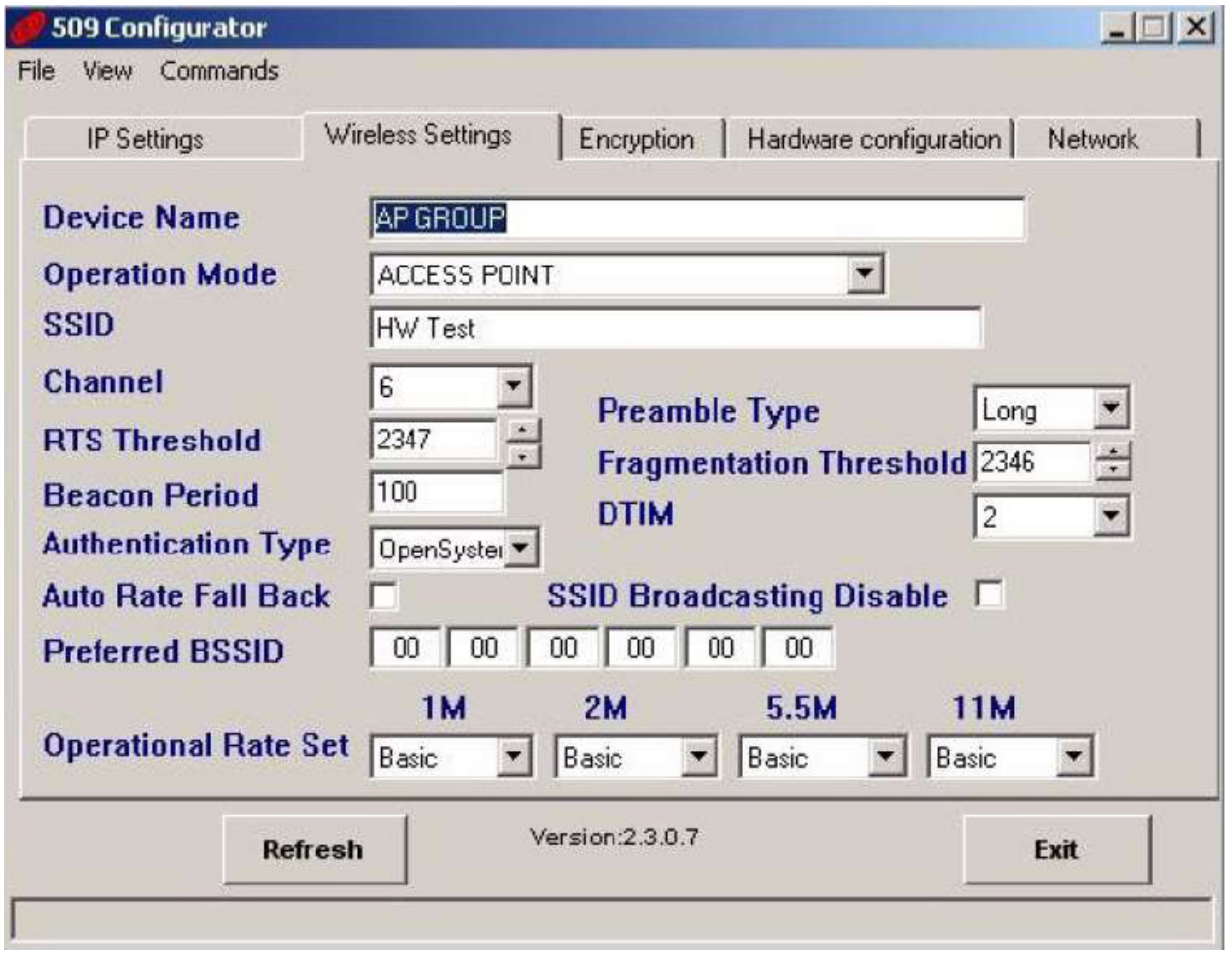

Figure 5-5. Wireless Settings Tab

Device Name: The name of the AP.

Operational Mode:

Access Point: This mode provides access from Wireless Stations to Wired LANs and from Wired LANs to Wireless Stations. Furthermore, Wireless Station within the

range of the AP device may communicate with each other via the AP.

Access Point Client: This mode allows the connection of one or more remote LANs with a central LAN, creating thus an extended single virtual LAN. In this way, any station of the Remote LAN can successfully communicate with any station of the central LAN, as if all of them belonged to the same physical LAN. Wireless Stations can't be associated with AP Clients. The AP conducts the designated traffic to the appropriate Wired or Wireless Station.

Wireless Bridge: This mode enables a wireless connection between two or more Wired LANs. Two types of connections are possible:

Point to Point: The Wireless Bridge can communicate with a Wireless Bridge having the MAC address specified in the remote MAC address field.

Point to Multipoint: The Wireless Bridge can communicate with any Wireless Bridge available in the same channel. When the Authorization Algorithm is enabled, the Wireless Bridge can communicate with any Wireless Bridge Authorization table.

Wireless Adapter: Connects an Ethernet equipped device to a wireless network either in infrastructure or ad-hoc mode. Wireless Adapter associates the wirless network adopting the MAC address of the attached Ethernet station, so it can be configured only through the Ethernet side.

SSID: It is an ASCII string up to 32 characters used to identify a WLAN that prevents the unintentional merging of two co-located WLANs. The SSID value must be the same in all stations and AP in the extended WLAN. Select the SSID to be used.

Channel: Selet the channel to be used. Depending on the Regulatory Domain of the AP the number of available channels can be 1 ~ 14.

Preamble Type: Preamble is the first subfield of PPDU, which is the appropriate frame format for transmission to PHY (Physical layer). There are two options, Short Preamble and Long Preamble. The Short Preamble option improves throughput performance.

RTS Threshold: Minimum packet size to require an RTS (Request To Send). For packets smaller than this threshold, and RTS is not sent and the packet is transmitted directly to the WLAN. This is the option for RTS Threshold activation.

Fragmentation Threshold: The size at which packets will be fragmented. Choose a setting within a range of 256 to 2346 bytes.

Beacon Period: Set the Beacon Period parameter, which specifies the duration

between Beacon packets (milliseconds). The range for the Beacon Period is between 20~1000, with a typical value of 100.

DTIM: Set the DTIM period. Determines at which interval the AP will send its broadcast traffic. Typical value is 2 Beacons.

Authentication Type:

Open System: With this setting any station in the WLAN can associate with an AP and receive and transmit data (null authentication).

Shared key: With this setting only stations using a shared key encryption identified by the AP are allowed to associate with it.

Both: With this setting stations communicate with the AP either with or without data encryption.

Auto Rate Fallback: When this is enabled, the transmission rate is the optimum rate. In case of obstacles or interference, the systems will automatically fall back.

SSID Broadcasting Disable: When checked, the AP is not broadcasting the SSID to the stations. in this case, the stations must know the AP's SSID in advance.

Operation Rate Set: By default, the unit adaptively selects the highest possible rate for transmission. Select the basic and supported rates to be used among the following option 1 – 2 – 5.5 – 11 (Mbps).

5.5 Encryption Tab

The EZY09-D is supporting several encryption methods, such as WEP 64-bits and WEP 128-bits. Also, it is supporting the WPA-PSK with TKIP or AES encryption. Here, you can enter the encryption key values using the Wireless Equivalent Privacy (WEP), write the values and press "Set" to download (WEP key is write-only, so it is not possible to retrieve the key values).

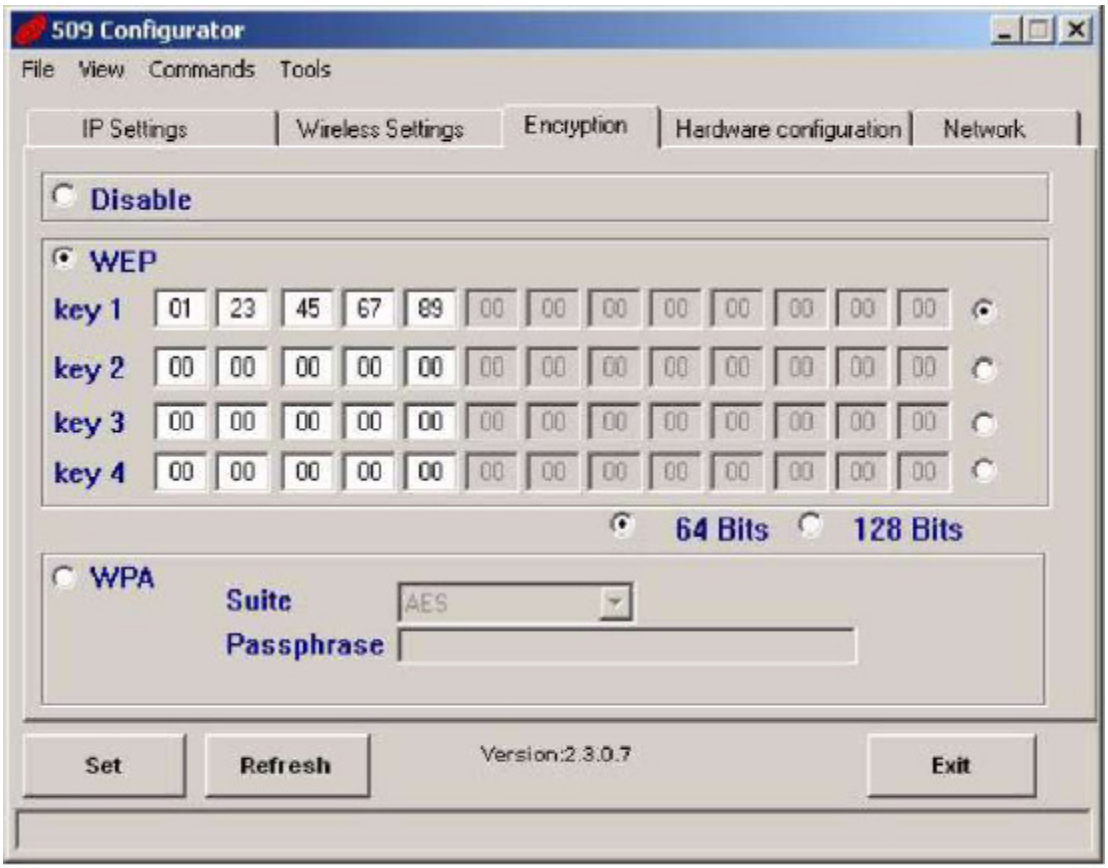

Figure 5-6. Encryption Tab

Disable: When selected, no encryption method is used.
WEP: There are four sets of 5 Hex digit encryption keys, available for 64bit WEP encryption and there are four sets of 13 Hex digit encryption keys available if you select 128bit WEP.
WPA: The EZY09-D AP is supporting the Wi-Fi Protecteed access and especially the WPA-PSK mode.
Suite: In this field, you can select the suite that will be used for the data encrykption.
Passphrase: Here you must enter the passphrase that is required by the WPA-PSK method.

5.6 Hardware Configuration Tab

This is a tab available only to the Manufacturer access level, and it is used in order to change the Hardware settings of the AP, like the MAC Address, the default channel or the Regulatory domain.

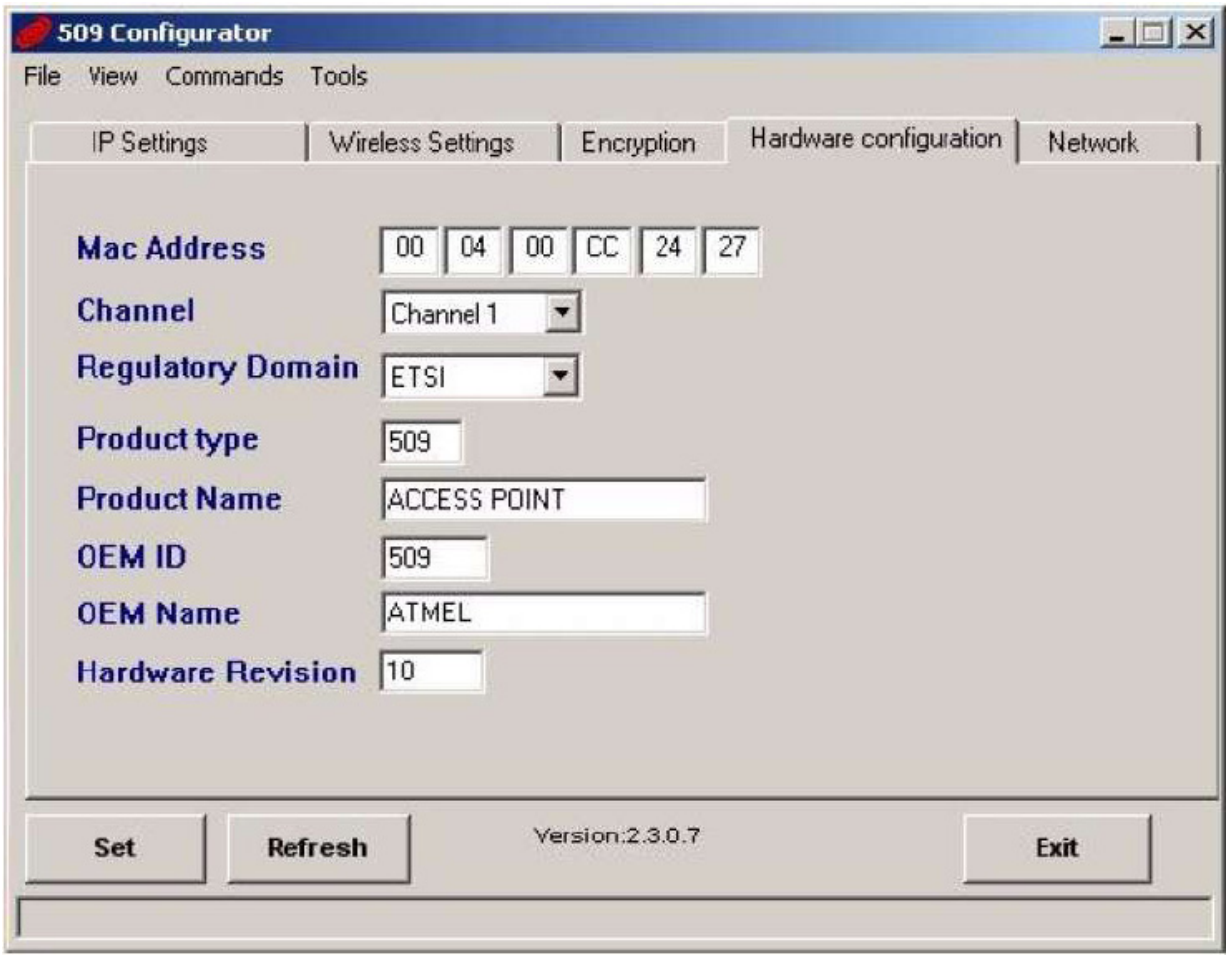

Figure 5-7. Hardware Configuration Tab

MAC Address: Here the OEM can set the MAC Address of the AP.
Channel: Here you can set the default channel of the AP.
Regulatory Domain: The regulatory domain that the AP will use during the normal operation (Currently available Regulatory domains are: FCC, DOC, ETSI, SPAIN, FRANCE, MKK, MKK1, ISRAEL).
Product Type: Defines the type of the AP.
Product Name: The name of the product.
OEM ID: The ID given by the OEM to the AP.
OEM Name: The Name of the OEM.
Hardware Revision: In this field, the OEM can declare the hardware revision of the AP.

5.7 Easy Setup Wizard Menus

After you enter the access password you will be directed to the Wireless Setting tab, also the menus of the Easy Setup Wizard will be shown. Depending on the access level that you have selected one of the following menus will be shown.

File	View	Commands
Exit	Association List	Authorization

Figure 5-8. Easy Setup Wizard Menus – User

File	View	Commands	Tools
Load	Site Survey	Authorization	Firmware Upgrade
Save	Association List		Authorization Configuration
Exit			

Figure 5-9. Easy Setup Wizard Menus – Administrator

File	View	Commands	Tools
Load	Site Survey	Authorization	RFTest Tool
Save	Association List		Firmware Upgrade
Exit			Authorization Configuration

Figure 5-10. Easy Setup Wizard Menus – Manufacturer

5.7.1 File Menu Load

Using this menus you can load a file with the configuration of the Base band.

Save as: This menu is for saving the current Base band configuration.

Exit: This menu command will close the Easy Setup Wizard.

Note: You can use the load/Save options after you have calibrated an AP and to load those values to a new AP.

5.7.2 View Menu Site Survey

Using this menu, you can perform a search for the available APs or Stations in Ad-Hoc mode.

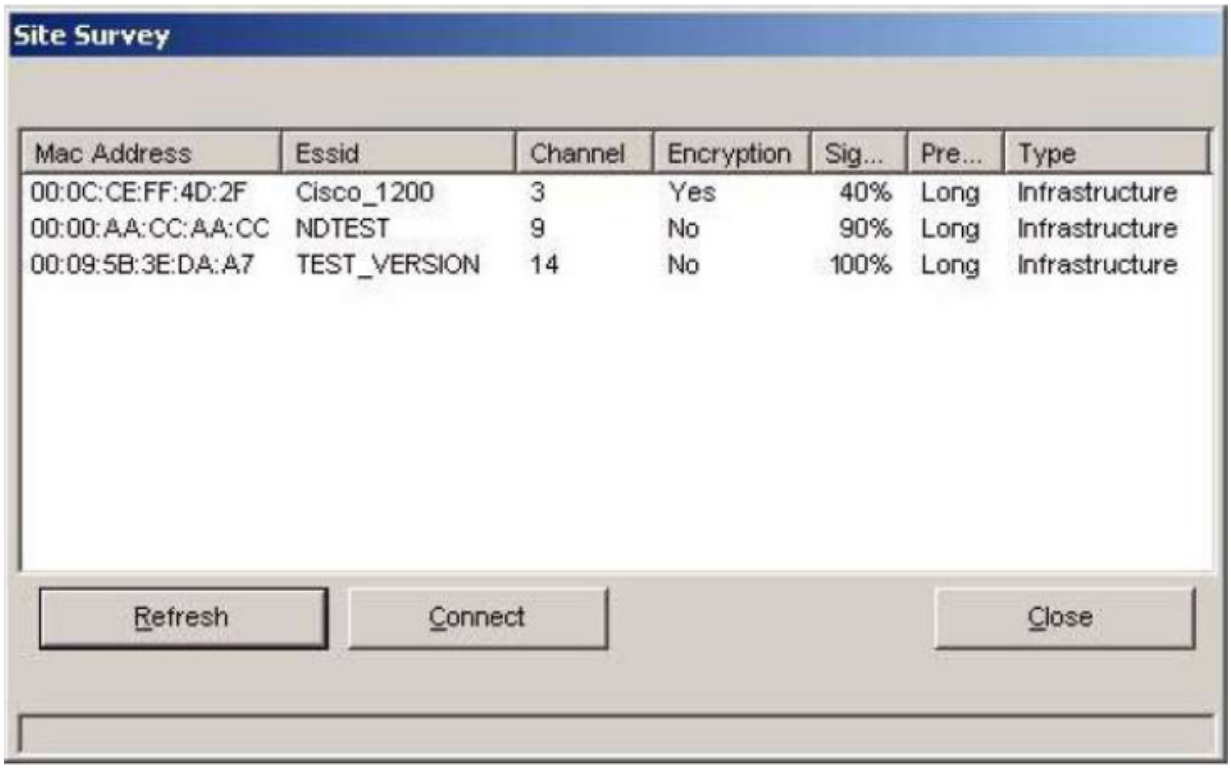

Figure 5-11. Site Survey

If you select one of the available APs you will be asked the type of the connection that you want to establish. (Figure 5-12)

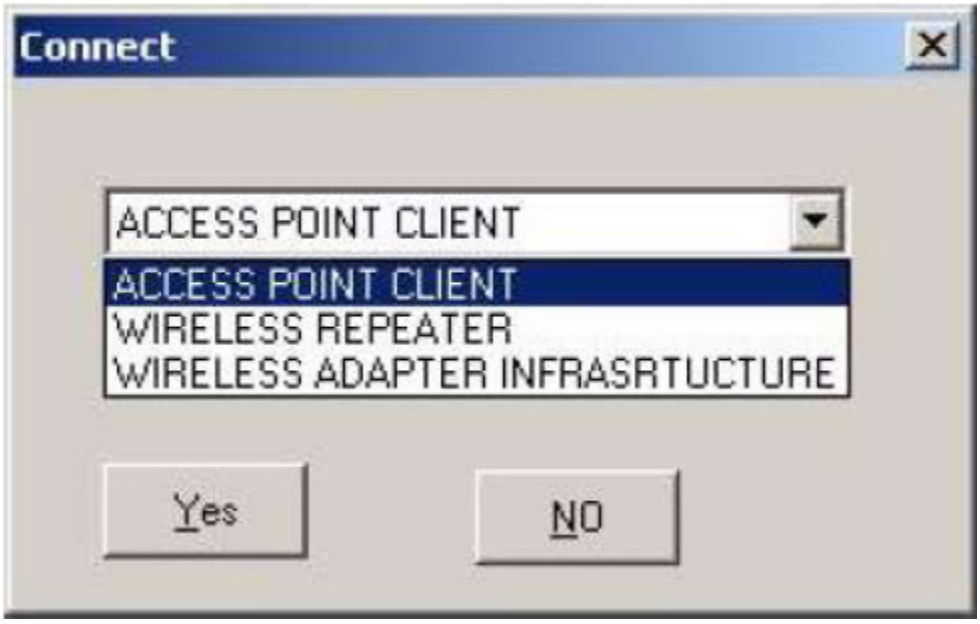

Figure 5-12. Site Survery – Connect

Assocation List: In this window you see all the devices that are associated with the EZY09-D AP.

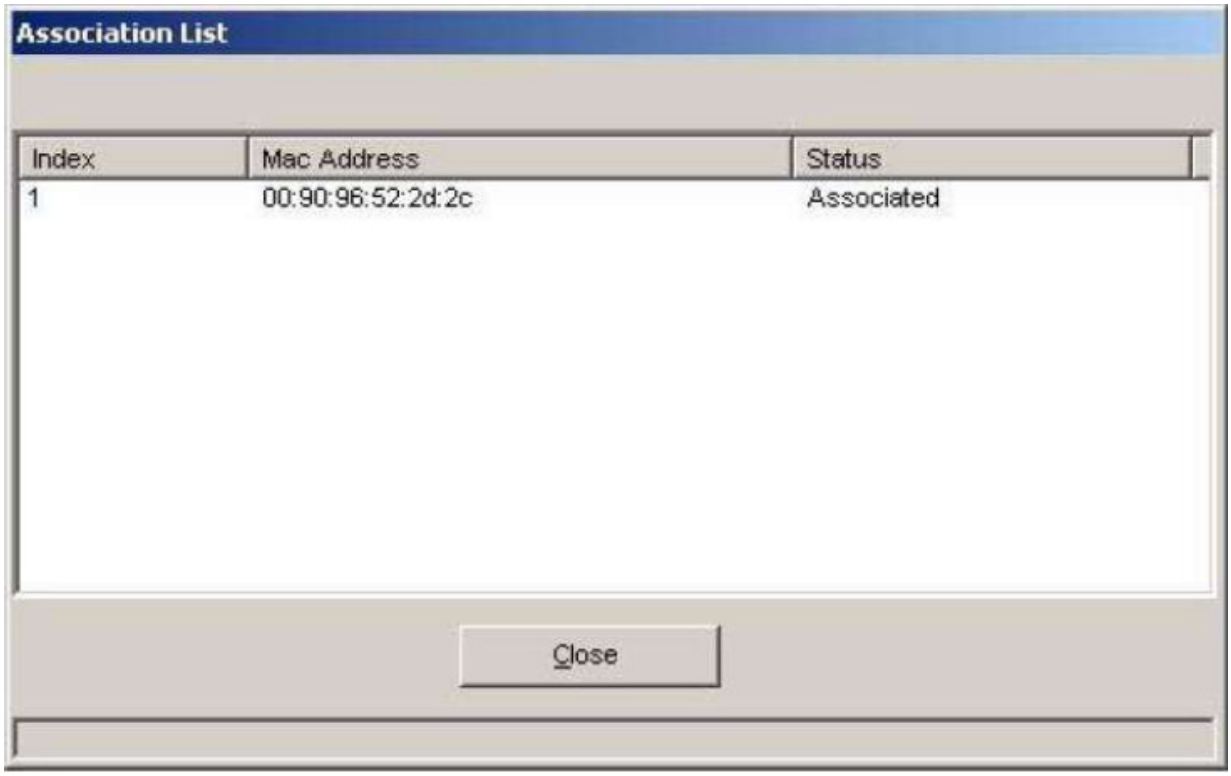

Figure 5-13. Association List

5.7.3 Commands Menu Authorization

Using this command you can see/set the list of the Mac addresses that are allowed or not to access the EZY09-D AP.

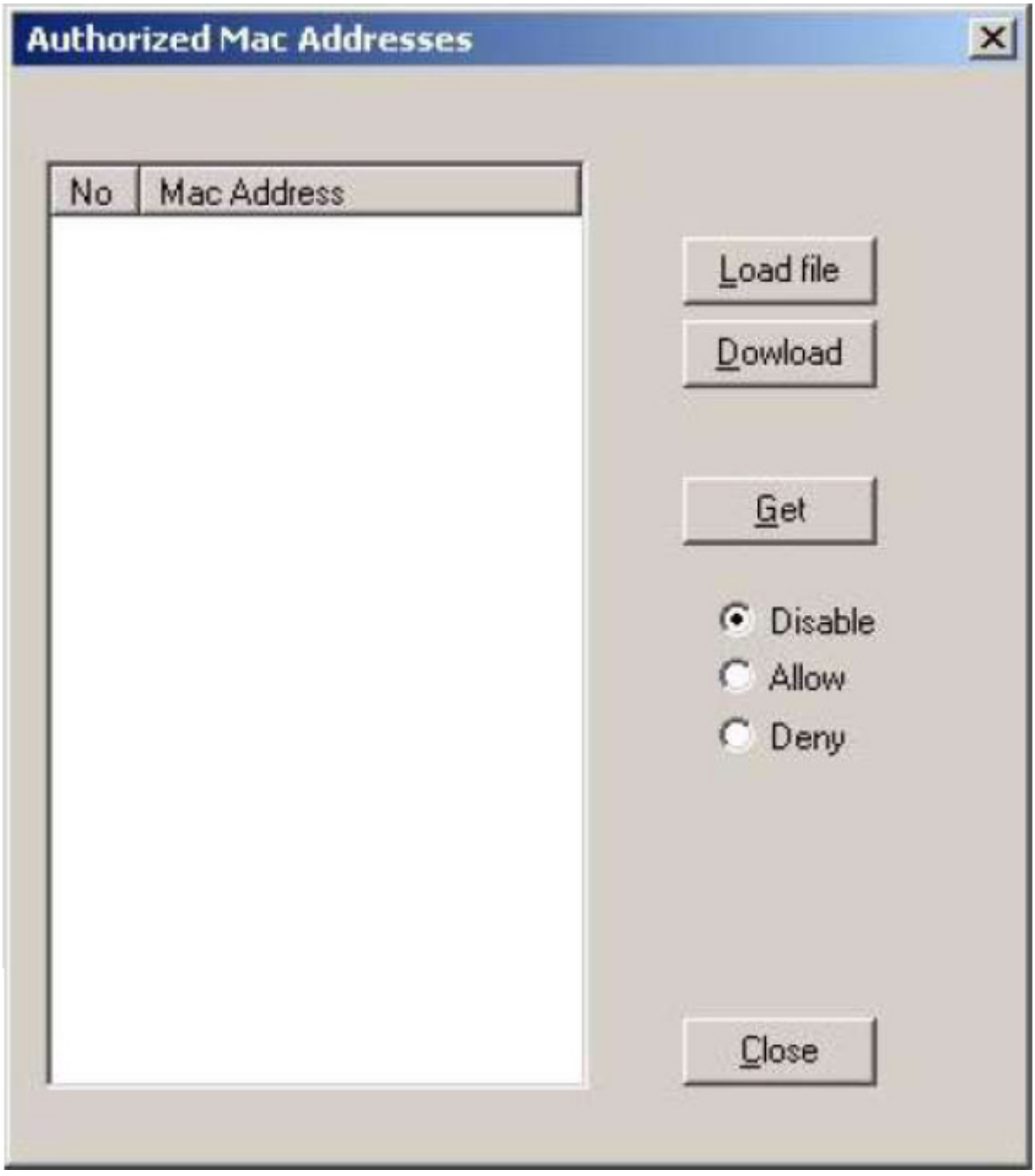

Figure 5-14. Authorized Mac addresses

For security reasons, the AP can use the Authorization Table option. The AP allows only authorized stations to get associated to it. Under the Authorized MAC address option, you may press the following buttons:

Load file: Use this button in order to load a txt file with the MAC addresses that can be associated with the AP (Authorized MAC Addresses). The txt file must have one MAC address at a line and with the following format:

000425000146, not 00-04-25-00-01-46 or 00 04 25 00 01 46.

Download: Use this button in order to download the Authorized MAC Address to the AP.

Get: Use this button in order to get from the AP the Authorized MAC Addresses.

Disable/Allow/Deny: Depending on the selection (Disable/Allow/Deny) the AP allows or not only the authorized stations to get associated to it.

5.7.4 Tools Menu RF Test Tool

This menu will start the RF Test Tool for the EZY09-D. With this tool, you can calibrate the radio of the EZY09-D AP. Below is a description of the buttons and fields of this tool.

With this tool, you can set the EZY09-D AP in 5 basic test/radio modes:

- Continuous Tx
- Continuous frame Tx
- Continuous Rx
- Carrier Accuracy
- Carrier Suppression

Using these test modes, you can calibrate the EZY09-D AP. Also there are available several secondary options like the Channel that each test will take place or the Tx rate, antenna, the Tx power and other settings that will be used during the test.

To the left side, there are two tabs with different settings, the config tab with settings regarding to Tx Power and the value of the CR39 register for each channel.

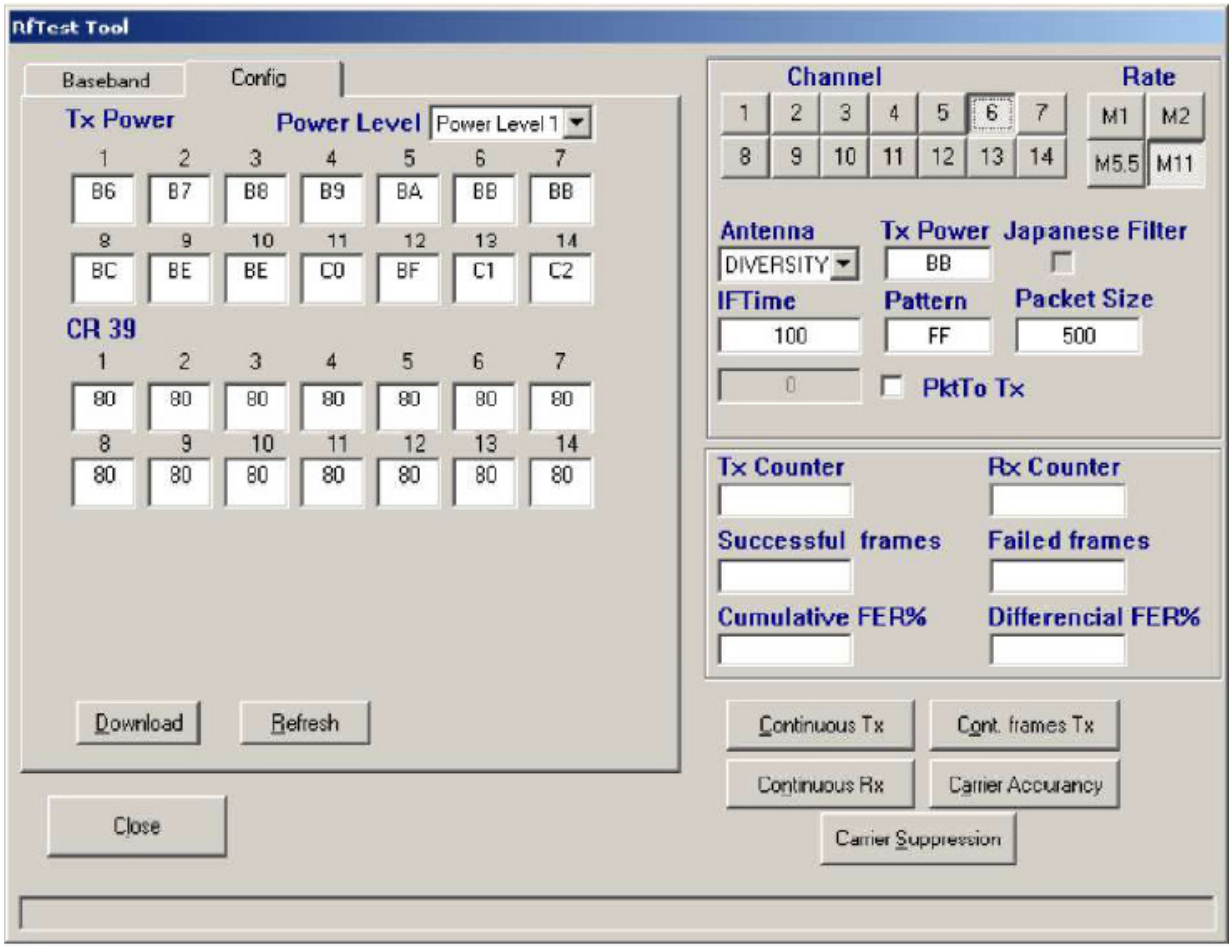

Figure 5-15. RF Test Tool – Config

Also to the config tab, you have the ability to set up to 4 different levels for the Tx power of the EZY09-D AP

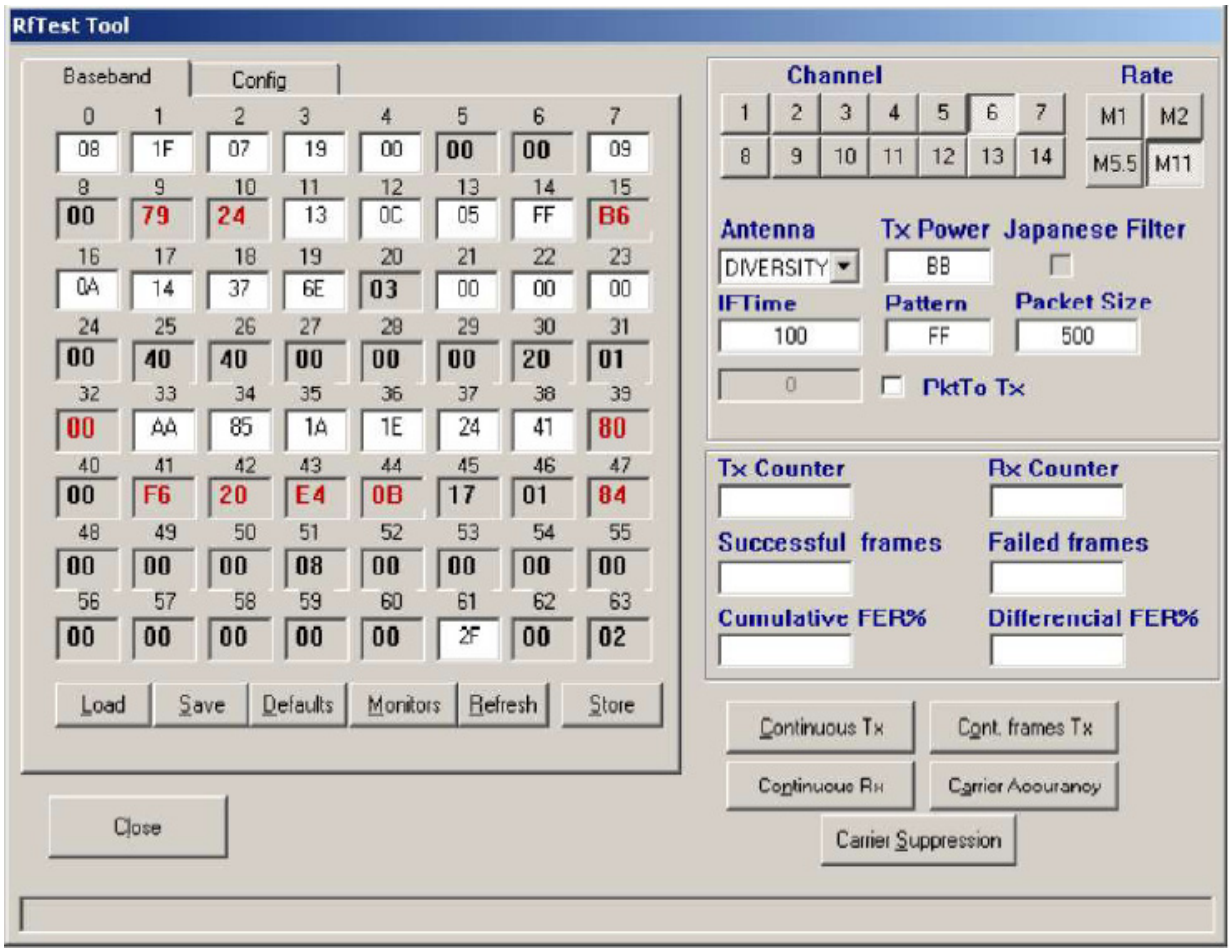

Figure 5-16. RF Test Tool – Baseband

At the Baseband tab, you can see the Baseband registers, from the registers that you see there is access to few only registers, the rest of them are for debugging purposes.
Load/Save: The Load/Save buttons are used for loading/saving the register values.
Defaults: Using this button the default values are loaded.
Monitor: Monitors the register values of the Baseband.
Refresh: Updating the register values.
Store: This button is saving to the EZY09-D AP flash memory the register values.

Firmware Upgrade: Using this menu, you can upgrade the Firmware of the EZY09-D AP. In order to do this , you shall need the appropriate file and press the download file. Also, available are the options to download a configuration files with the current, default, H/W and Radio settings (Download Settings) and a patch file (Download File) that can be used to correct some problems.

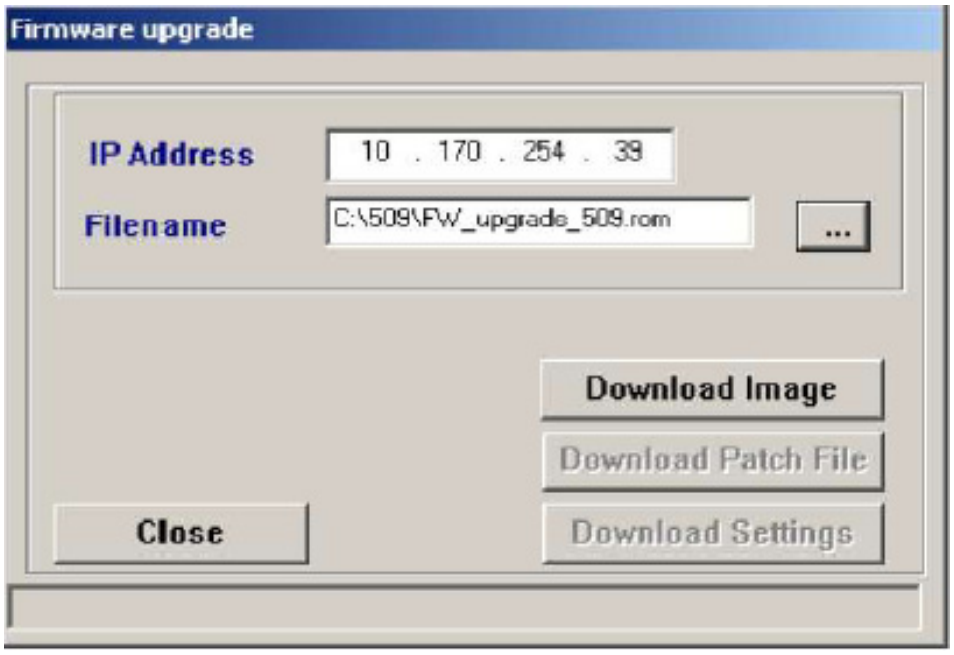

Figure 5-17. Firmware Upgrade

Authority Confgiratuion: From this menu, you can change the Access passwords of the EZY09-D AP. The available options are the Administrator and the User password.

Figure 5-18. Authority Configuration

Section 6 Support

For further information on the e-zy.net EZY09-D AP or WLAN products, please contact support@e-zy.net

Note: Please submit the “Registration Form” that has been included in the e-zy.net WLAN documentation for tracking and support purposes.