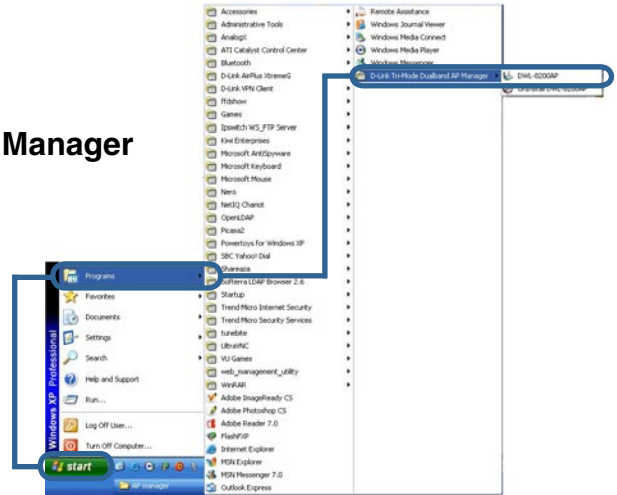


# Using the AP Manager

The AP Manager is a convenient tool to manage the configuration of your network from a central computer. With AP Manager there is no need to configure devices individually.

To launch the **AP Manager**:

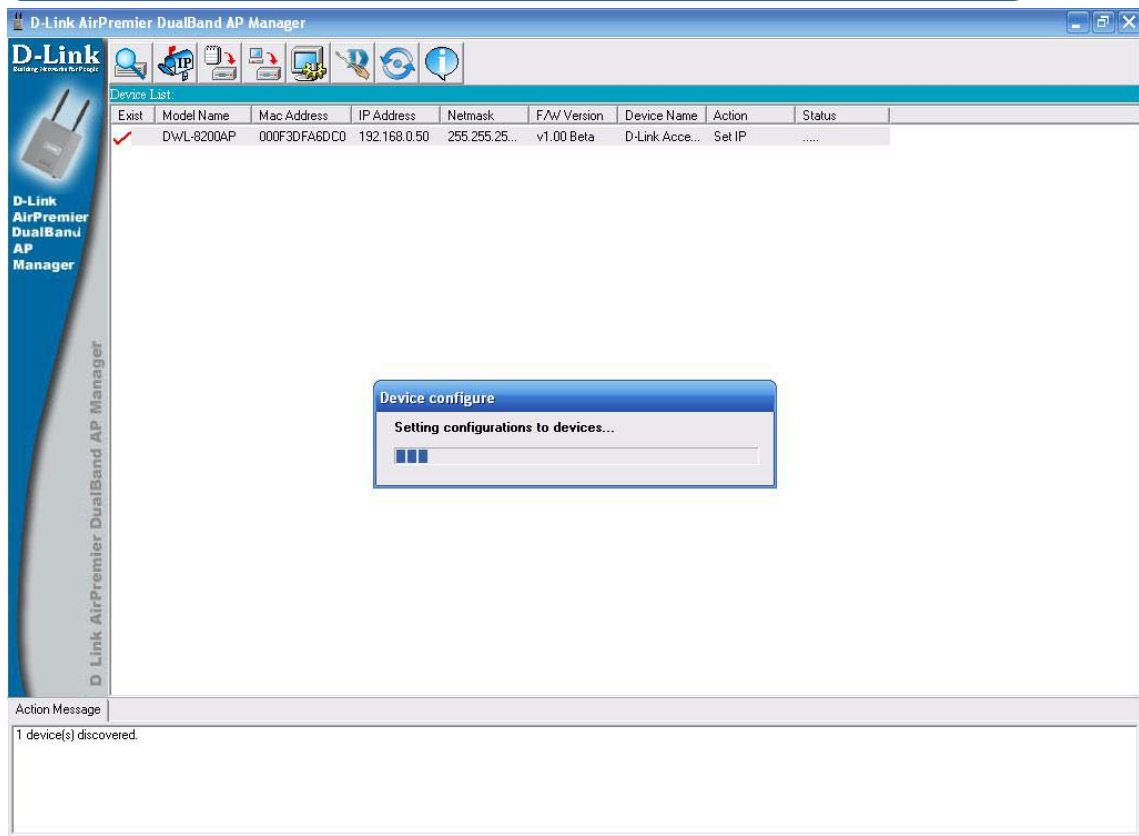
- Go to the **Start Menu**
- Select **Programs**
- Select **D-Link TriMode Dualband AP Manager**
- Select **DWL-8200AP**



## Discovering Devices



Click on this button to **discover the devices** available on the network.



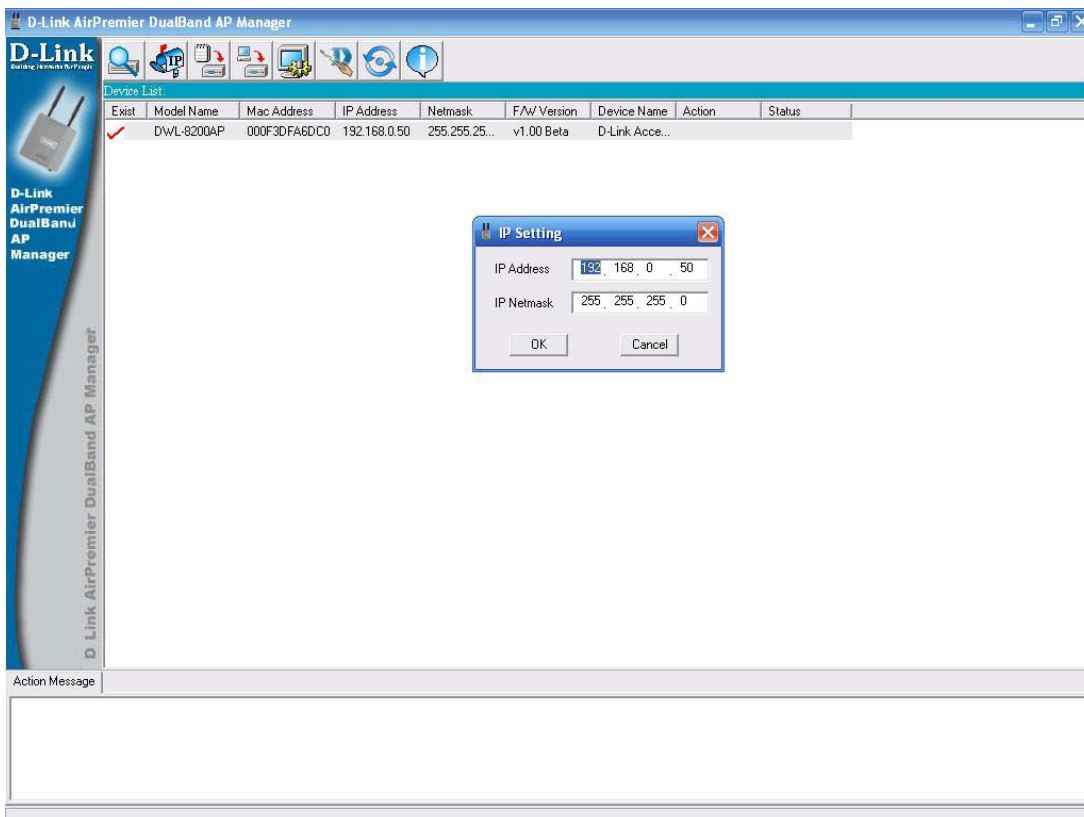
## Selecting Devices

The AP Manager allows you to configure multiple devices all at once. To select a single device, simply click on the device you want to select. To select multiple devices, hold down the **Ctrl** key while clicking on each additional device. To select an entire list, hold the **Shift** key, click on the first AP on the list and then click on the last AP on the list.

## IP Configuration

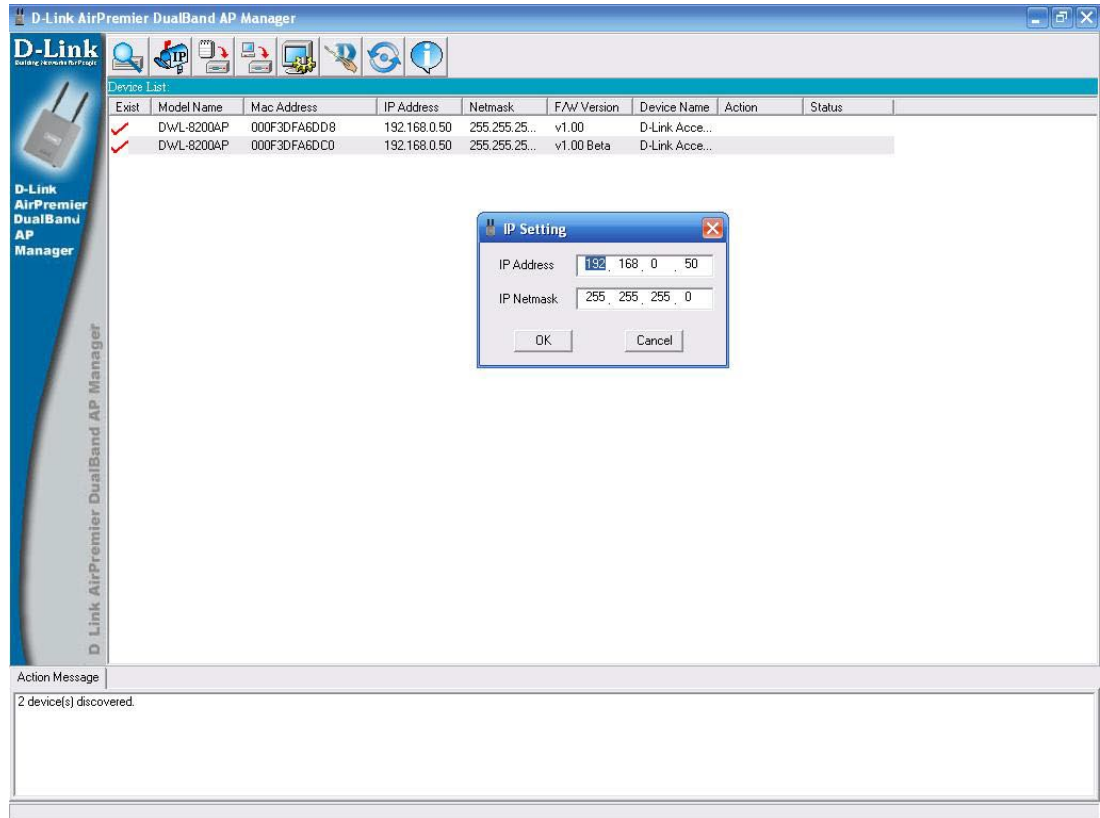


You can assign an IP address to an AP or assign IP addresses to multiple AP's by clicking on this button after selecting the device(s).



Select the AP that you want to assign an IP address to and click the IP button. Enter the IP address and IP netmask for the selected device and click OK.

## IP Configuration *(continued)*



You can configure multiple AP's with IP addresses all at once. Click on the IP button after you've selected all of the AP's you want to assign an IP address. Enter the IP address you want to assign the first unit and the AP manager will automatically assign sequential IP addresses.

## Device Configuration



Click on this button to access the configuration properties of the selected device(s).

The device configuration window allows you to configure settings but does not actually apply the settings to the device unless you click the **Apply** button. You can also save and load configuration files from this window. When you load a configuration file, you must click **Apply** if you want the settings to be applied to the selected device(s).

You can configure a single device by highlighting one device in the list, or you can configure multiple devices by highlighting multiple devices before clicking on the Device Configuration icon pictured above. The examples in this section show single device configuration. When you select multiple devices for configuration the procedure will be similar.

**Check All**

The Check All button will select all configurable options. Any setting that has a checkmark next to it is applied to the device or saved to the configuration file.

**Clear Checks**

The Clear Checks button deselects all configurable options. This feature is useful if you only want to change a few settings. Deselect all items and only check the items that you want to modify.

**Refresh**

Refresh will revert to the actual device settings of the selected device(s).

**Apply**

To save settings to the device, you must click the Apply button. Only settings that have a checkmark next to them will be applied.

**Open**

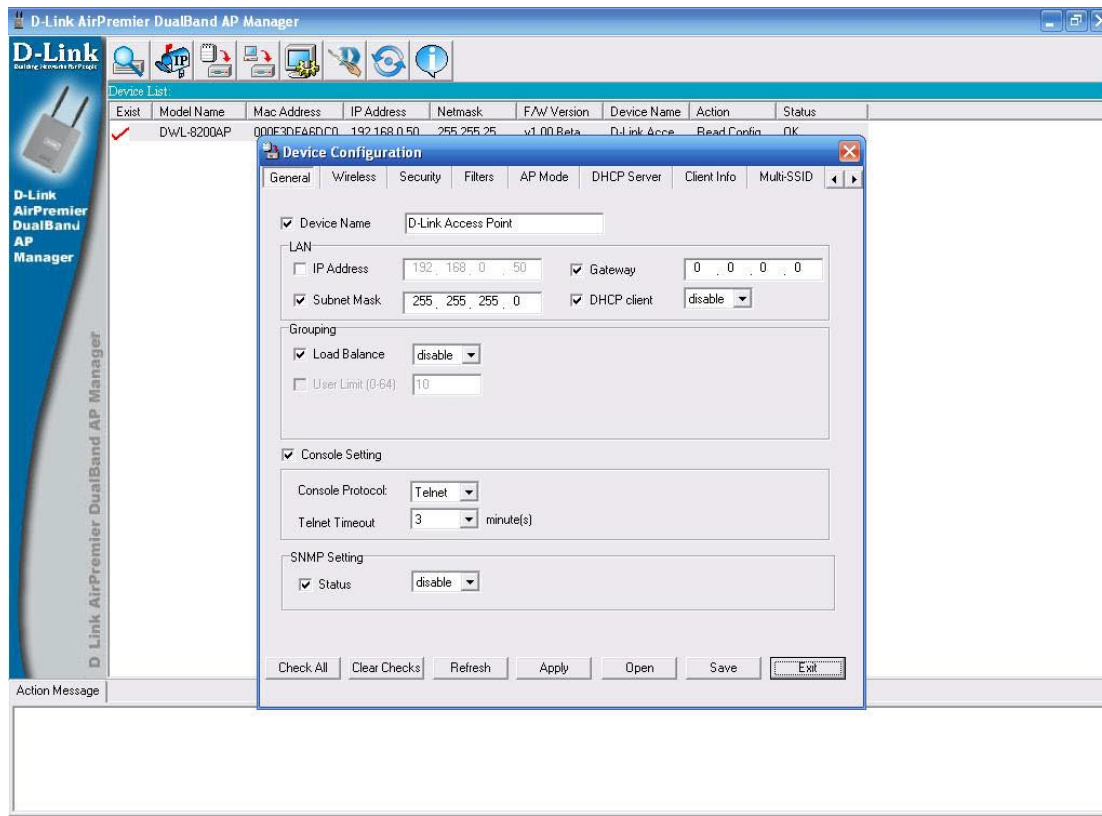
The open button is used to load a previously saved configuration file. After opening a configuration file, you must click the Apply button to save the settings to the selected device(s).

**Save**

The save button allows you to save a configuration file of the selected device settings. Only settings that have a checkmark next to them are saved. You cannot save a configuration file if you selected more than one device in the device list.

**Exit**

The Exit button will close the device configuration window. Any settings that haven't been applied will be lost.



## Device Configuration > General

When selecting multiple devices for configuration, some options are unavailable for configuration by default as noted(\*) below:

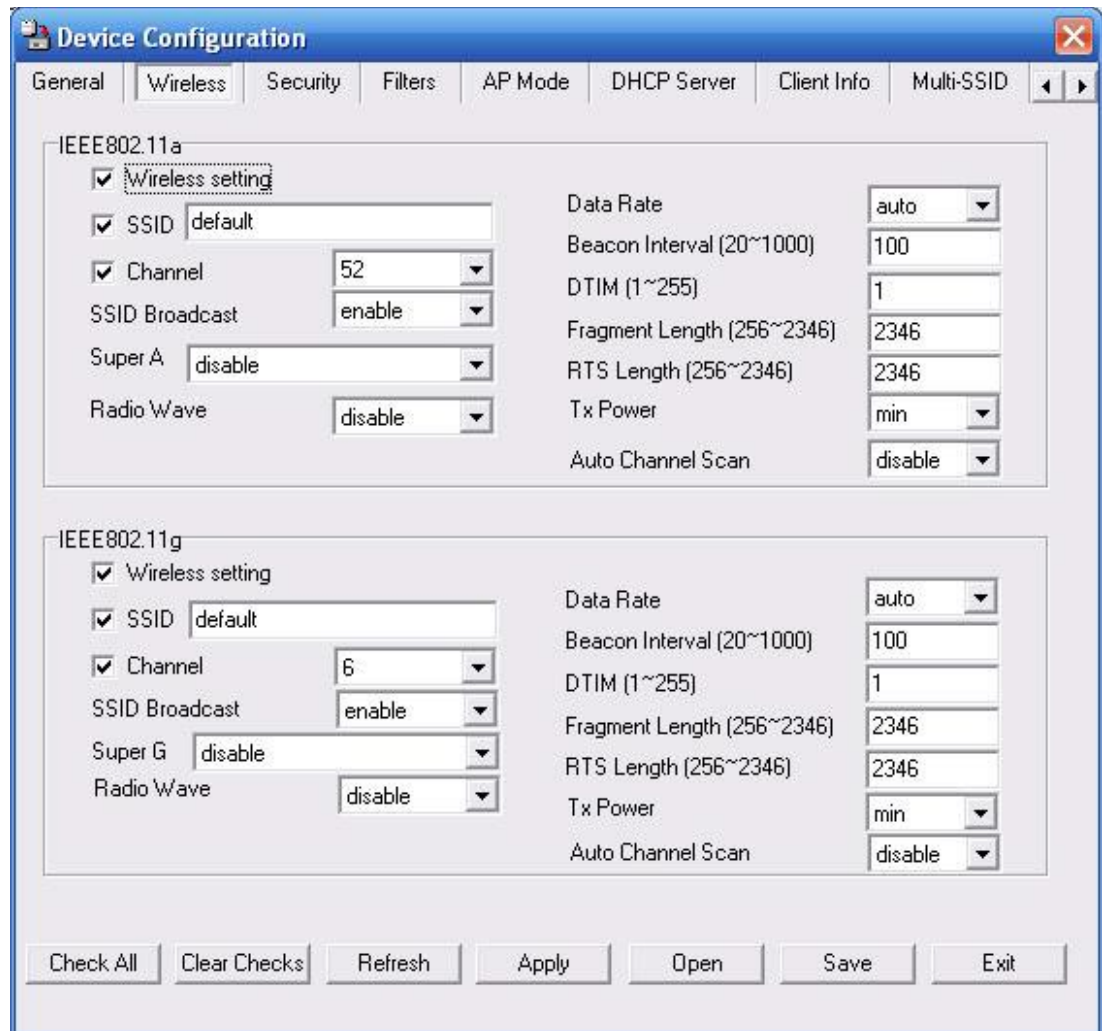
- Device Name(\*):** This allows you to change the device name for the selected access point. You must place a checkmark in the Device Name box to change the name. This option should only be configured when one access point is selected for configuration.
- IP address and Subnet Mask(\*):** If you've selected one device for configuration and you want to change the IP address of the device, check the IP Address box. You can then enter an IP address and Subnet Mask for the selected access point. This option should only be configurable when one access point is selected for configuration. To configure multiple devices with an IP address at one time, please reference the previous page.
- Gateway:** Enter the IP address of your gateway, typically your router address.



## Device Configuration > General (continued)

<b>DHCP client:</b>	There is a pull-down menu to select enabled or disabled. When enabled, the selected device(s) will function as a DHCP client(s). This allows them to receive IP configuration information from a DHCP server. When disabled, the access point(s) must have a static IP address assigned to them.
<b>Load Balance:</b>	This pull-down selection enables or disables load balancing. When you enable load balance you allow several access points to balance wireless network traffic and wireless clients among the access points with the same SSID. All the APs that share Load Balancing must have the same SSID. Assign each access point a different non-overlapping channel (e.g., 1, 6, 11).
<b>User Limit:</b>	Enter the number of the limit of load balancing users, from 0-64.
<b>Console Protocol:</b>	From the pull-down selection, choose either <b>Telnet</b> or <b>SSH</b> for Console protocol.
<b>Telnet Timeout:</b>	This pull-down selection defines the timeout period during a Telnet session with the selected device(s).
<b>Status:</b>	Select <b>Enable</b> to set the SNMP setting.

## Device Configuration > Wireless



### IEEE 802.11a:

**Wireless:** Check to enable wireless mode.

**SSID:** The Service Set (network) Identifier of your wireless network.

**Channel:** Allows you to select a channel. **52** is the default setting for 802.11a.

**SSID Broadcast:** Allows you to **enable** or **disable** the broadcasting of the SSID to network clients.

**Super A:** Select this option to enable a wireless signal rate of up to 108Mbps. **Super A** is a group of performance enhancement features that increase end user application throughput in an 802.11a network. **Super A** is backwards compatible with standard 802.11a devices. For ideal performance, all wireless devices on the network should be **Super A** capable.

## Device Configuration > Wireless (*continued*)

Super A Mode	Function
Disabled	Standard 802.11a support. No enhanced capabilities.
Super A without Turbo	Capable of Packet Bursting, FastFrames, Compression. No Turbo mode.
Super A with Dynamic Turbo	Capable of Packet Bursting, FastFrames, Compression, and Dynamic Turbo mode. This setting is backwards compatible with non-Turbo (legacy) devices. Dynamic Turbo mode is only enabled when all devices on the wireless network are configured with Super A and Dynamic Turbo enabled.
Super A with Static Turbo	Capable of Packet Bursting, FastFrames, Compression, and Static Turbo mode. This setting is not backwards compatible with non-Turbo (legacy) devices. Static turbo mode is always on and is only enabled when all devices on the wireless network are configured with Super A and Static Turbo enabled.

**Radio Wave:** Select **Enable** or **Disable**.

**Data Rate\*:** A pull-down menu to select the maximum wireless signal rate for the selected device(s).

**Beacon Interval (20~1000):** Beacons are packets sent by an access point to synchronize a network. Specify the beacon value for the selected device(s) here. The default value of **100** is recommended.

**DTIM (1~255):** DTIM (Delivery Traffic Indication Message) is a countdown informing clients of the next listening window for broadcast and multicast messages.

**Fragment Length (256~2346):** This sets the fragmentation threshold (specified in bytes). Packets exceeding the value set here will be fragmented. The default is **2346**.

**RTS Length (256~2346):** The RTS value should not be changed unless you encounter inconsistent data flow. The default value is **2346**.

**Tx Power:** Choose **full**, **half (-3dB)**, **quarter (-6dB)**, **eighth (-9dB)**, **minimum power**. This tool can be helpful for security purposes if you wish to limit the transmission range.

**Auto Channel:** **Enable** this option to automatically select the most optimal channel available for wireless networking and to scan for the least populated channel.

\*Maximum wireless signal rate derived from IEEE Standard 802.11a and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead lower actual data throughput rate.



## Device Configuration > Wireless (*continued*)

### IEEE 802.11g:

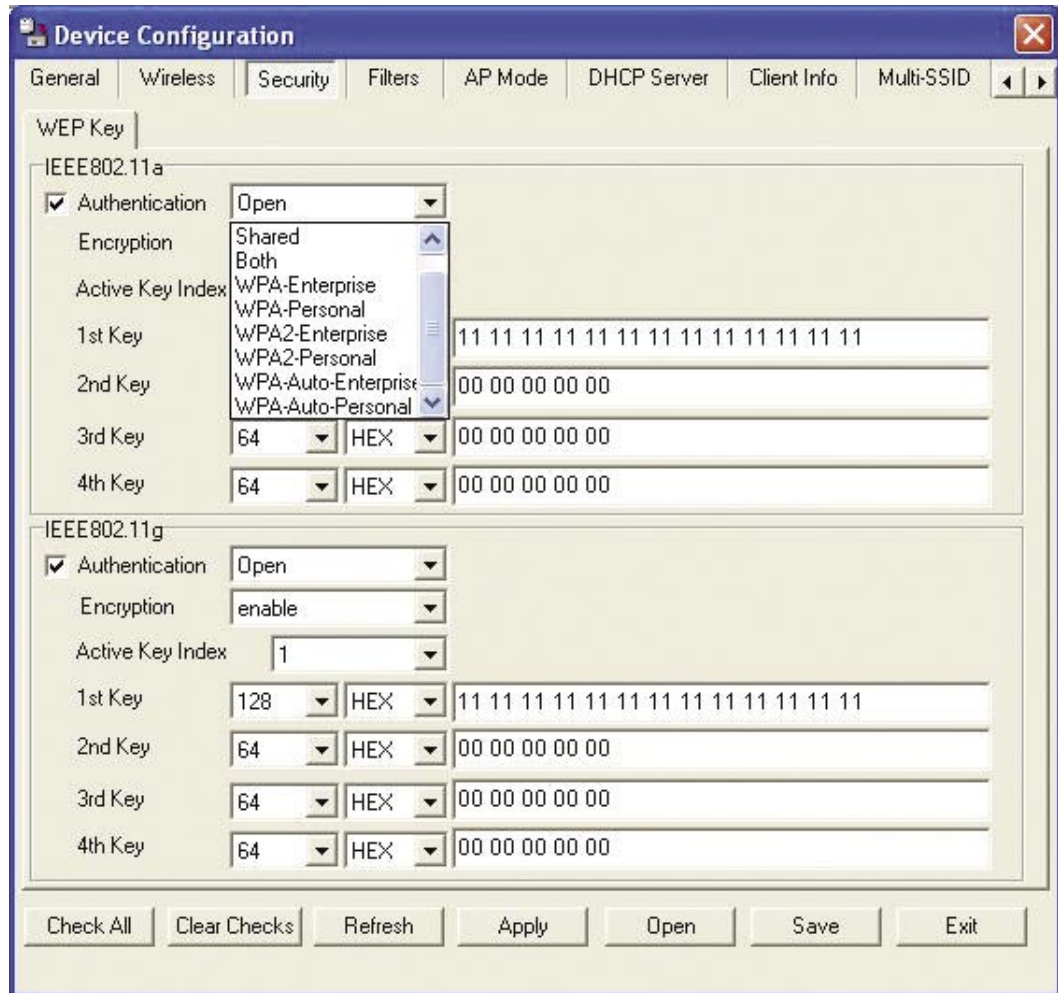
- Wireless:** Check to enable wireless mode.
- SSID:** The Service Set (network) Identifier of your wireless network.
- Channel:** Allows you to select a channel. **6** is the default setting.
- SSID Broadcast:** Allows you to enable or disable the broadcasting of the SSID to network clients.
- Super G:** Select this option to enable a wireless signal rate of up to 108Mbps.
- Radio Wave:** Select **Enable** or **Disable**.
- Data Rate\*:** A pull-down menu to select the maximum wireless signal rate for the selected device(s).
- Beacon Interval (20~1000):** Beacons are packets sent by an access point to synchronize a network. Specify the beacon value for the selected device(s) here. The default value of **100** is recommended.
- DTIM (1~255):** DTIM (Delivery Traffic Indication Message) is a countdown informing clients of the next listening window for broadcast and multicast messages.
- Fragment Length (256~2346):** This sets the fragmentation threshold (specified in bytes). Packets exceeding the value set here will be fragmented. The default is **2346**.
- RTS Length (256~2346):** The RTS value should not be changed unless you encounter inconsistent data flow. The default value is **2346**.
- Tx Power:** Choose **full**, **half (-3dB)**, **quarter (-6dB)**, **eighth (-9dB)**, **minimum power**. This tool can be helpful for security purposes if you wish to limit the transmission range.
- Auto Channel:** Select this option to automatically select the most optimal channel available for wireless networking.

\*Maximum wireless signal rate derived from IEEE Standard 802.11a and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead lower actual data throughput rate.

**Device Configuration > Security > Authentication**

AP Mode	Authentication Available
<b>Access Point</b>	<b>Open</b> <b>Shared</b> <b>Both</b> <b>WPA-Enterprise</b> <b>WPA-Personal</b> <b>WPA2-Enterprise</b> <b>WPA2-Personal</b> <b>WPA-Auto-Enterprise</b> <b>WPA-Auto-Personal</b>
<b>WDS with AP</b>	<b>Open</b> <b>Shared</b> <b>Both</b> <b>WPA-Personal</b> <b>WPA2-Personal</b> <b>WPA-Auto-Personal</b>
<b>WDS</b>	<b>Open</b> <b>Shared</b> <b>Both</b> <b>WPA-Personal</b> <b>WPA2-Personal</b> <b>WPA-Auto-Personal</b>

## Device Configuration > Security > Authentication *(continued)*



**Open:** The key is communicated across the network.

**Shared:** Limited to communication with devices that share the same WEP settings.

**Both:** The key is communicated and identical WEP settings are required.

**Authentication:** Select **Open System/Shared Key** to allow either form of data encryption.

Select **WPA-Enterprise** to secure your network with the inclusion of a RADIUS server.

## Device Configuration > Security > Authentication (*continued*)

### Authentication (*continued*):

Select **WPA-Personal** to secure your network using a password and dynamic key changes. (No RADIUS server required.)

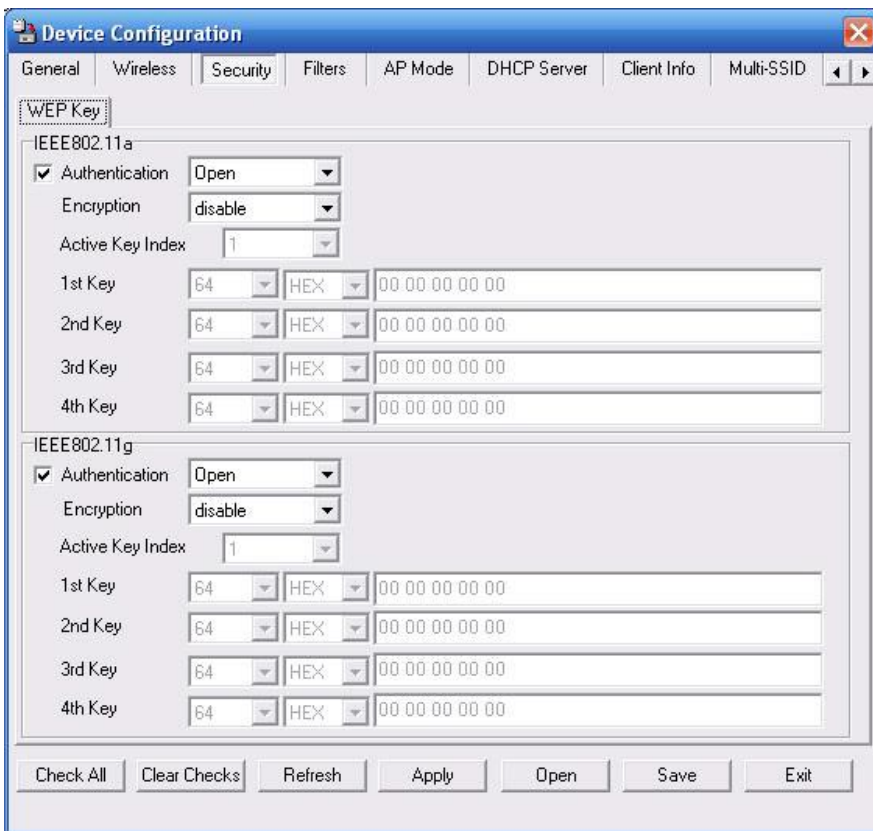
Select **WPA2-Enterprise** to secure your network with the inclusion of a RADIUS server and upgrade the encryption of data with the Advanced Encryption Standard (AES).

Select **WPA2-Personal** to secure your network using a password and dynamic key changes. No RADIUS server required and encryption of data is upgraded with the Advanced Encryption Standard (AES).

Select **WPA-Auto-Enterprise** to allow the client to either use **WPA-Enterprise** or **WPA2-Enterprise**.

Select **WPA-Auto-Enterprise** to allow the client to either use **WPA-Personal** or **WPA2-Personal**.

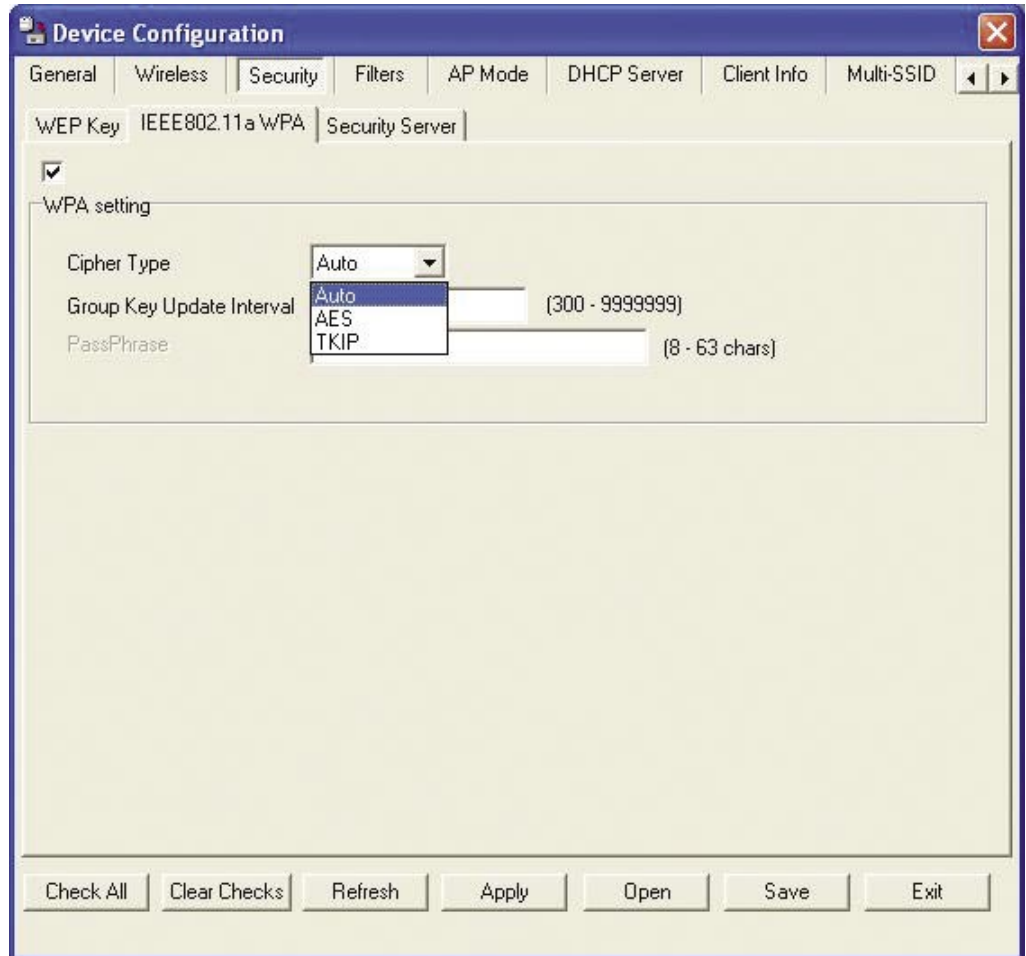
## Device Configuration > Security > Open/Shared/Both



The Security tab contains the WEP configuration settings on the initial page. If you select WPA as the authentication type, an additional tab will appear with the WPA configuration options based on your selection.

- Authentication Type:** Select from the pull-down menu the type of authentication to be used on the selected device(s). In this example you may select **Open**, **Shared**, or **Both**.
- Encryption:** **Enable** or **Disable** encryption on the selected device(s). This option will only be available when security is set to **Open** or **Both**.
- Active Key Index:** Select which defined key is active on the selected device(s). This option will only be available when security is set to **Open**, **Shared**, or **Both**.
- Key Values:** Select the key size (**64-bit**, **128-bit**, or **152-bit**) and key type (**HEX** or **ASCII**) and then enter a string to use as the key. The key length is automatically adjusted based on the settings you choose. This option will only be available when security is set to **Open**, **Shared**, or **Both**.

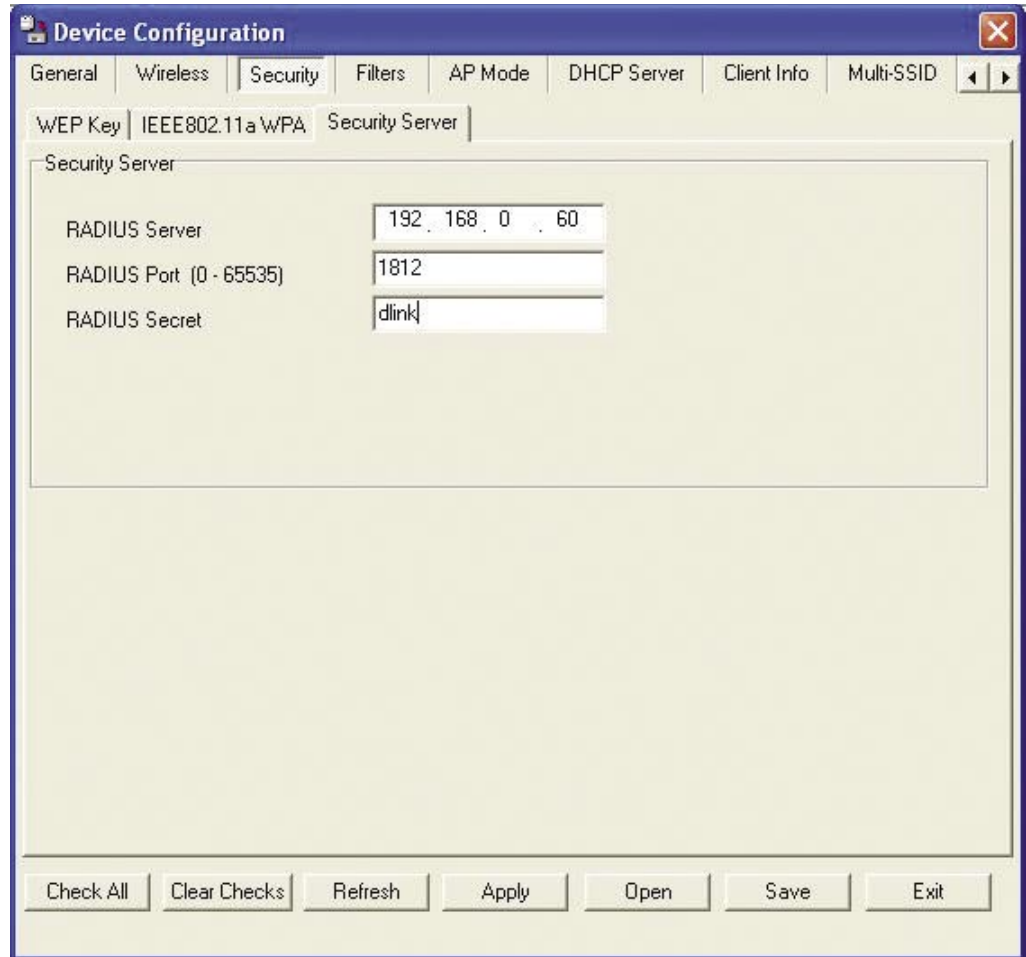
## Device Configuration > Security > WPA-Enterprise, WPA2-Enterprise, & WPA-Auto-Enterprise



**Cipher Type:** Select **Auto**, **TKIP**, or **AES** from the pull-down menu.

**Group Key Update Interval:** Select the interval during which the group key will be valid. **1800** is the recommended setting. A lower interval may reduce transfer rates.

## Device Configuration > Security > WPA-Enterprise, WPA2-Enterprise, & WPA-Auto-Enterprise > Security Server

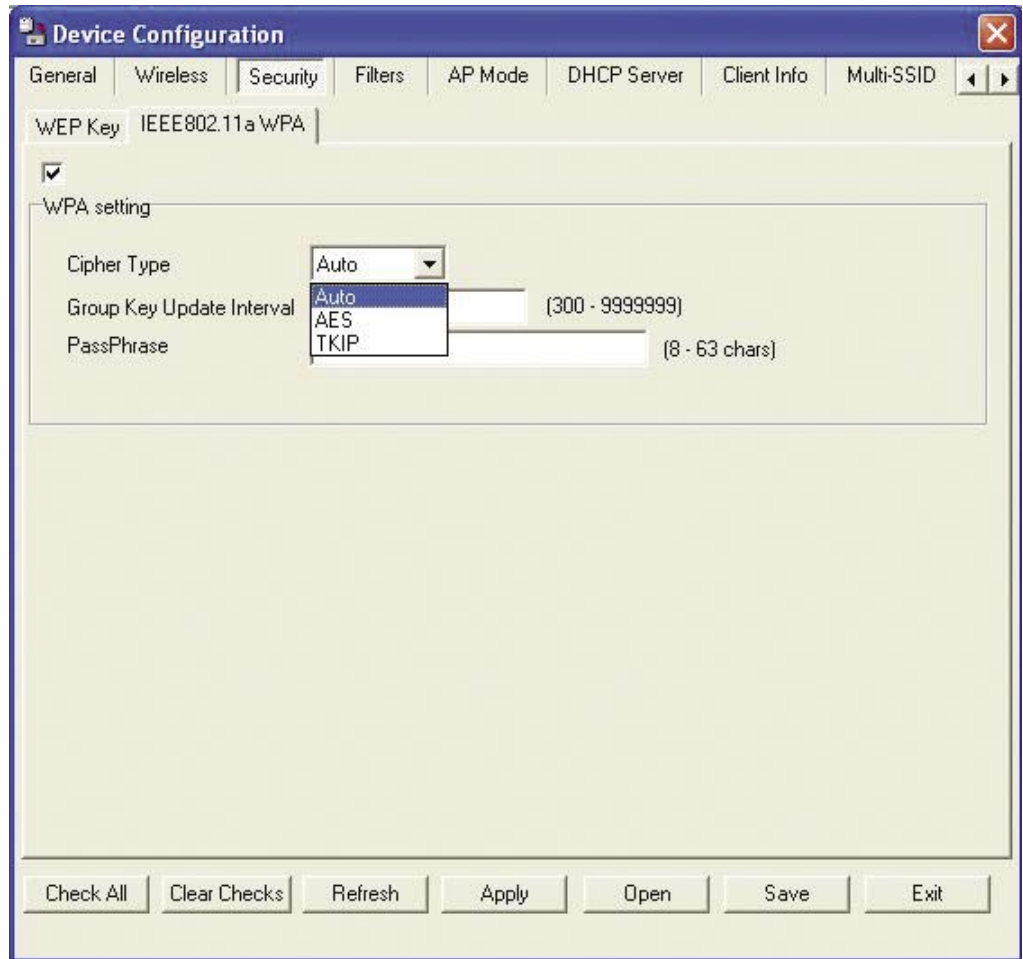


**RADIUS Server:** Enter the IP address of the RADIUS server.

**RADIUS Port:** Enter the port used on the RADIUS server.

**RADIUS Secret:** Enter the RADIUS secret.

## Device Configuration > Security > WPA-Personal, WPA2-Personal, & WPA-Auto-Personal



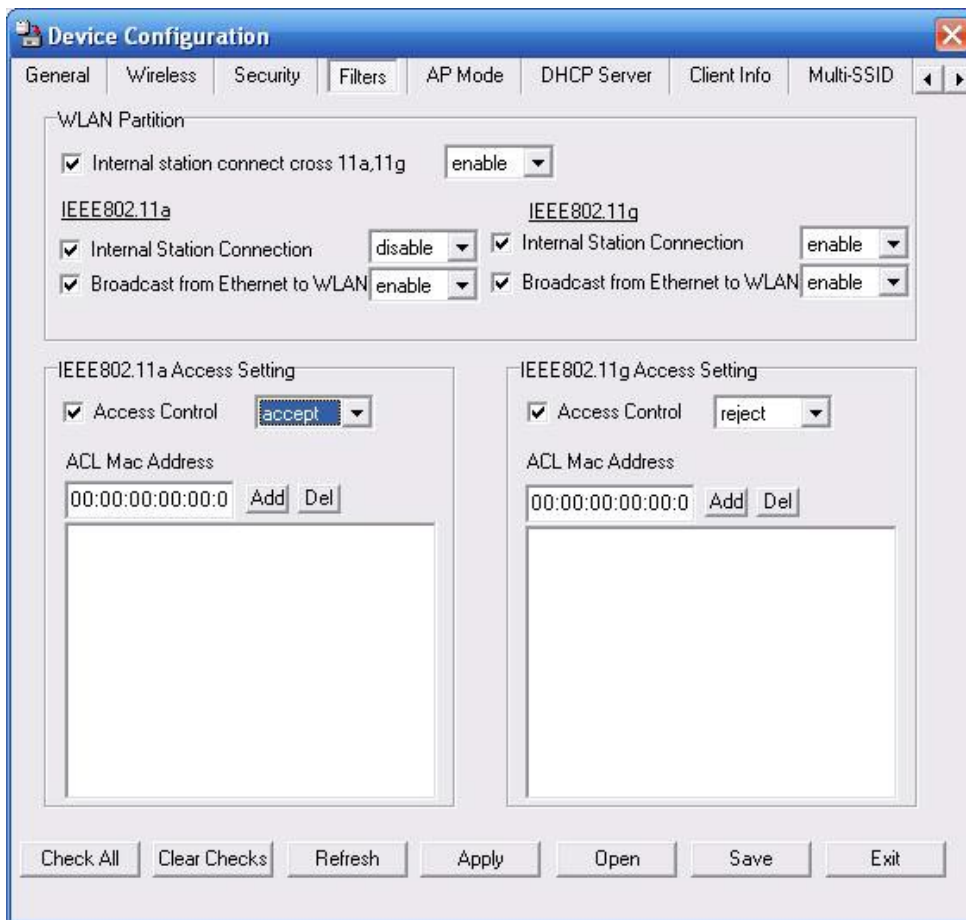
**Cipher Type:** Select **Auto**, **TKIP**, or **AES** from the pull-down menu.

**Group Key Update Interval:** Select the interval during which the group key will be valid. **1800** is the recommended setting. A lower interval may reduce transfer rates.

**PassPhrase:** Enter a **PassPhrase** between 8-63 characters in length.



## Device Configuration > Filters



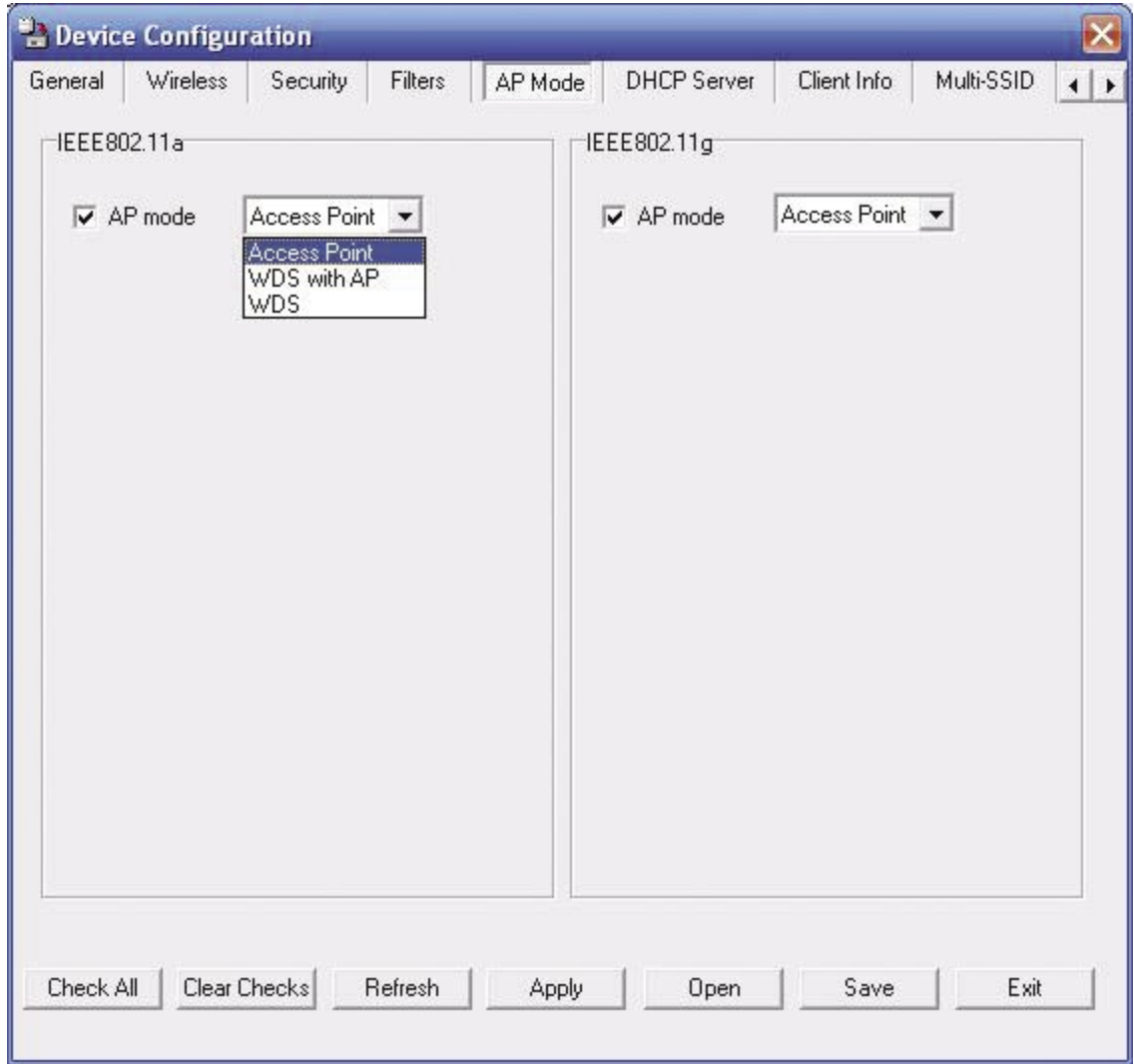
**Internal Station Connection:** Enabling this allows wireless clients to communicate with each other. When this option is disabled, wireless stations are not allowed to exchange data through the access point.

**Ethernet to WLAN Access:** Enabling this option allows Ethernet devices to communicate with wireless clients. When this option is disabled, all data from Ethernet to wireless clients is blocked. Wireless devices can still send data to the Ethernet devices when this is disabled.

**Access Control:** When disabled access control is not filtered based on the MAC address. If Accept or Reject is selected, then a box appears for entering MAC addresses. When **Accept** is selected, only devices with a MAC address in the list are granted access. When **Reject** is selected, devices in the list of MAC addresses are not granted access.

**Access Control List:** Add or Delete MAC addresses in the Access Control List.

## Device Configuration > AP Mode

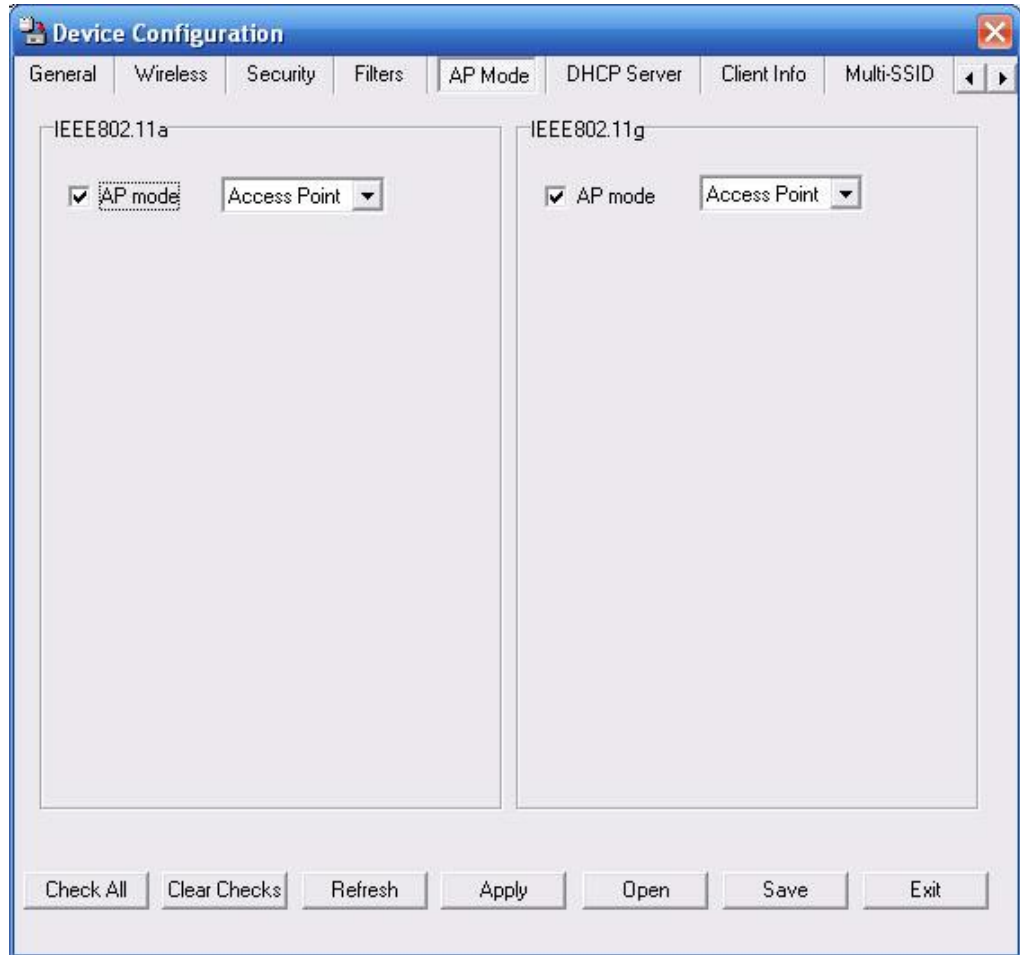


**AP Mode:** There are 3 AP modes:

- Access Point**
- WDS with AP**
- WDS**

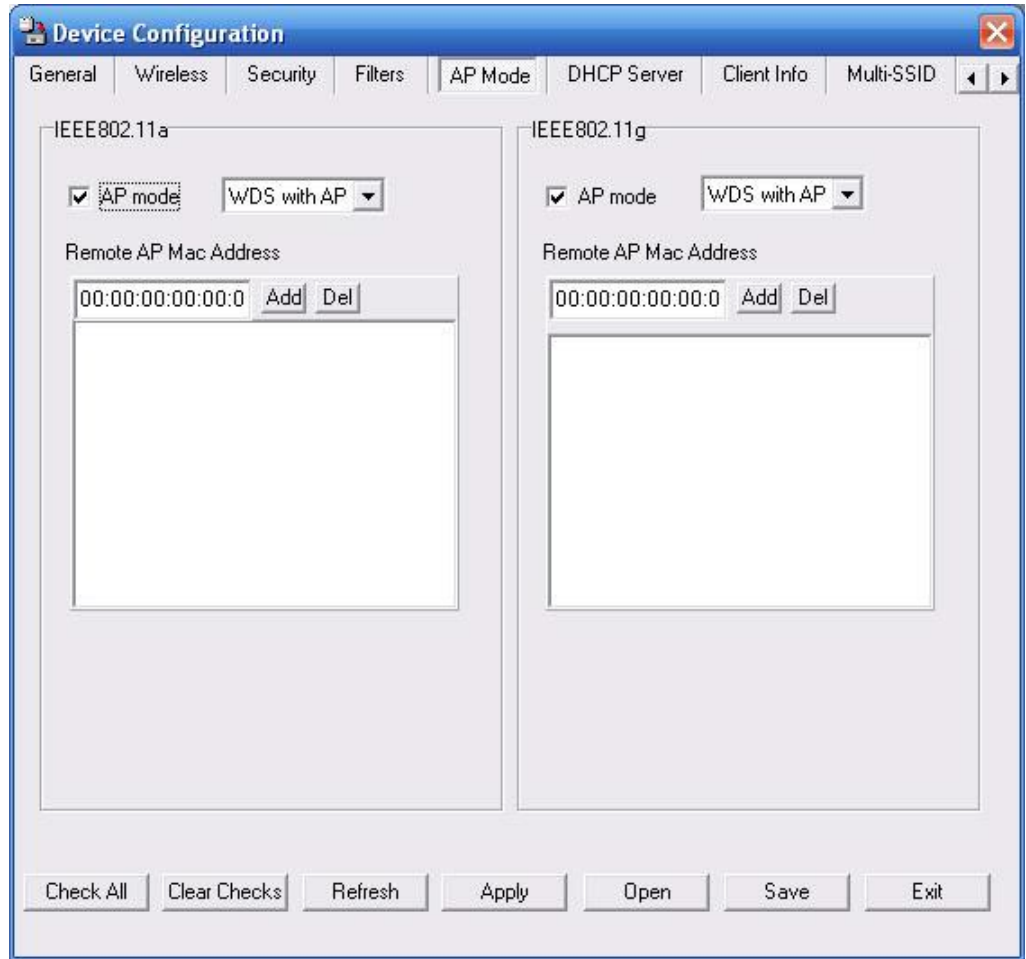
Please see the following pages for an explanation of all the AP modes.

## Device Configuration > AP Mode > Access Point



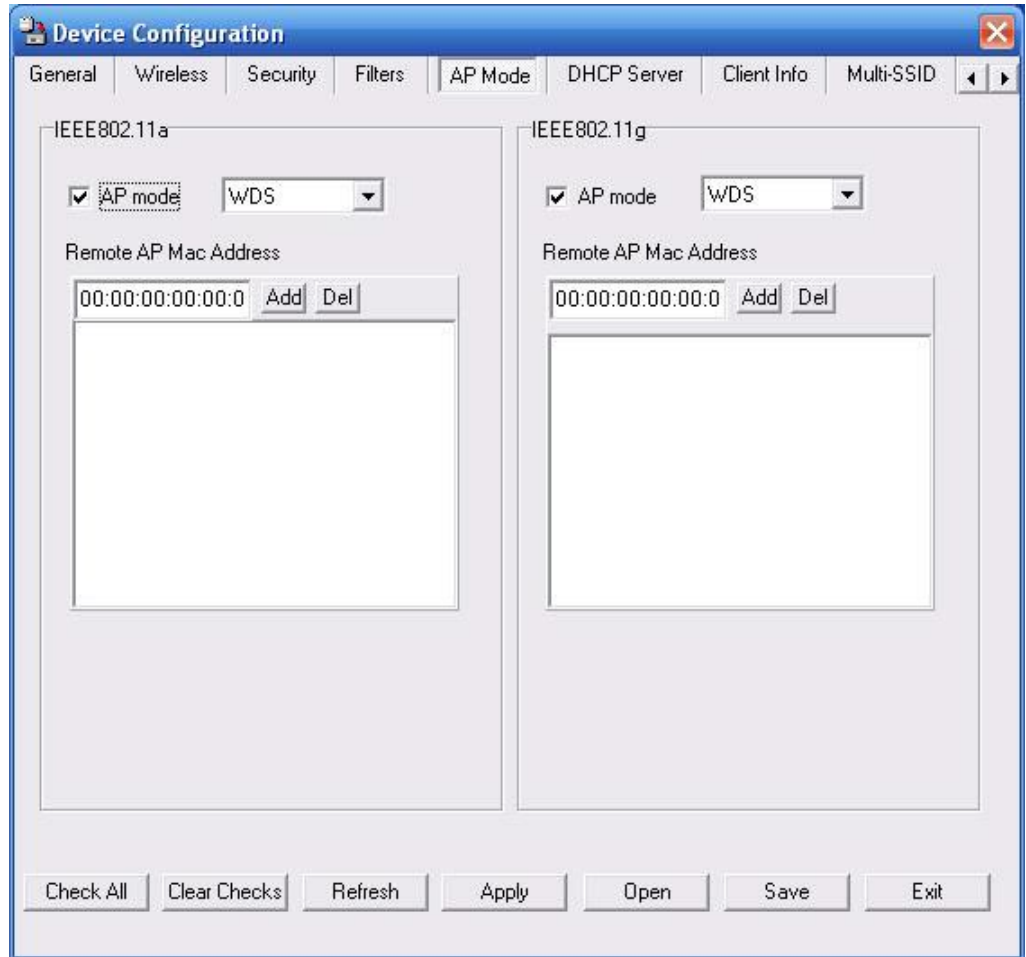
**Access Point:** Creates a Wireless LAN.

## Device Configuration > AP Mode > WDS with AP



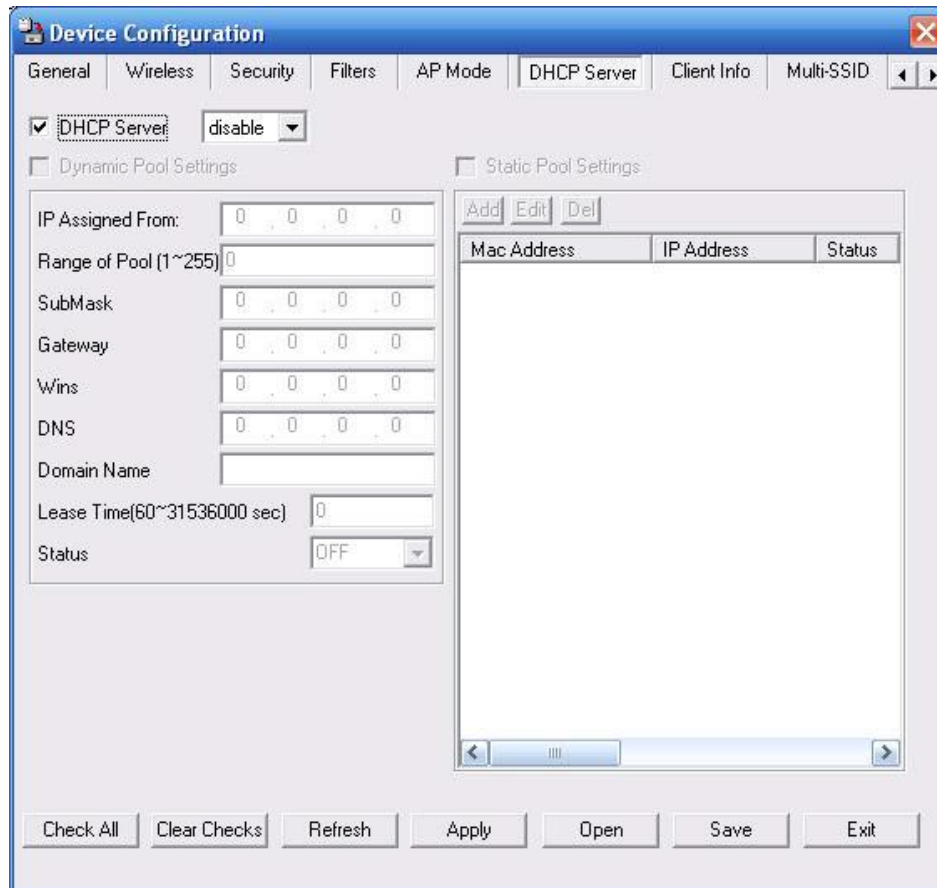
**WDS with AP:** Wireless Distribution System with Access Points. APs in a network are wirelessly wired together and connected via a Distribution System. The **DWL-8200AP** wirelessly connects multiple networks, while still functioning as a wireless AP.

## Device Configuration > AP Mode > WDS



**WDS:** A Wireless Distribution System that interconnects so called Basic Service Sets (BSS). It bridges two or more wired networks together over wireless. The **DWL-8200AP** wirelessly connects multiple networks without functioning as a wireless AP.

## Device Configuration > DHCP Server



**DHCP Server:** Enable or disable the DHCP server function.

**Dynamic Pool Settings:** Click to enable Dynamic Pool Settings. Configure the IP address pool in the fields below.

**Static Pool Settings:** Click to enable Static Pool Settings. Use this function to assign the same IP address to a device at every restart. The IP addresses assigned in the Static Pool list must NOT be in the same IP range as the Dynamic Pool.

**IP Assigned From:** Enter the initial IP address to be assigned by the DHCP server.

**Range of Pool (1~255):** Enter the number of allocated IP addresses.

**SubMask:** Enter the subnet mask.

**Gateway:** Enter the gateway IP address, typically a router.



## Device Configuration > DHCP Server (*continued*)

**Wins:** Wins (Windows Internet Naming Service) is a system that determines the IP address of a network computer with a dynamically assigned IP address, if applicable.

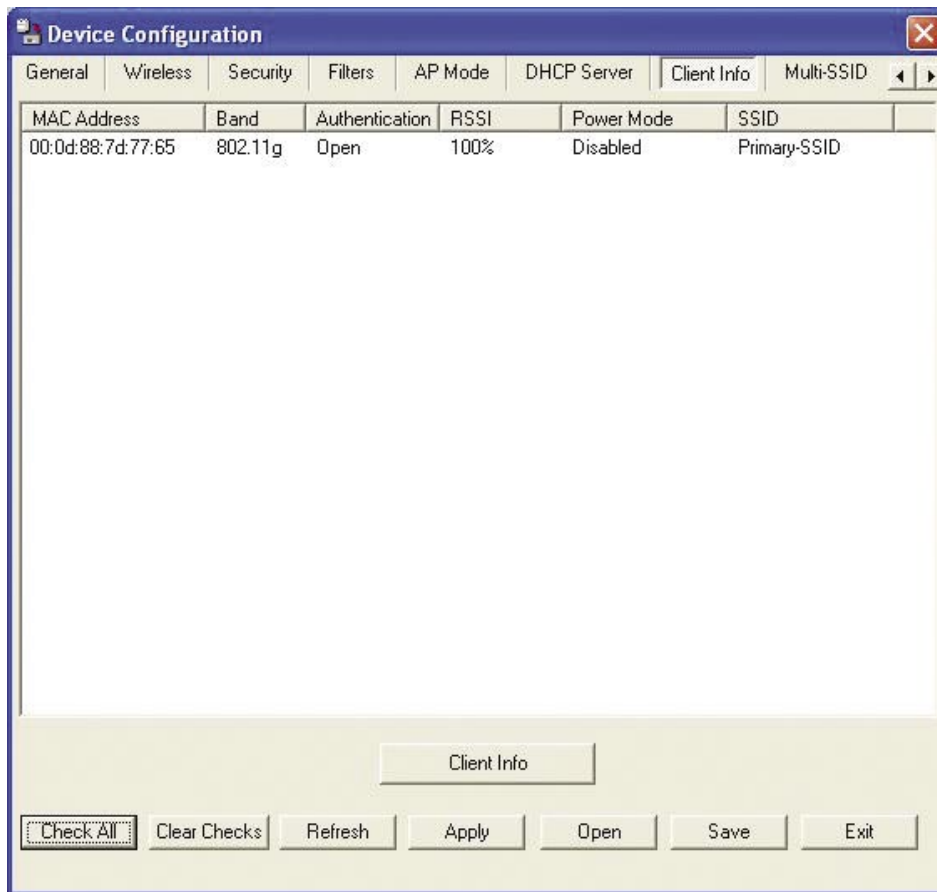
**DNS:** The IP address of the DNS server, if applicable.

**Domain Name:** Enter the domain name of the **DWL-8200AP**, if applicable.

**Lease Time:** The period of time that the client will retain the assigned IP address.

**Status:** This option turns the dynamic pool settings on or off.

## Device Configuration > Client Info



**MAC Address:** Displays the MAC address of the client.

**Band:** Displays the wireless band.

**Authentication:** Displays the type of authentication that is enabled.

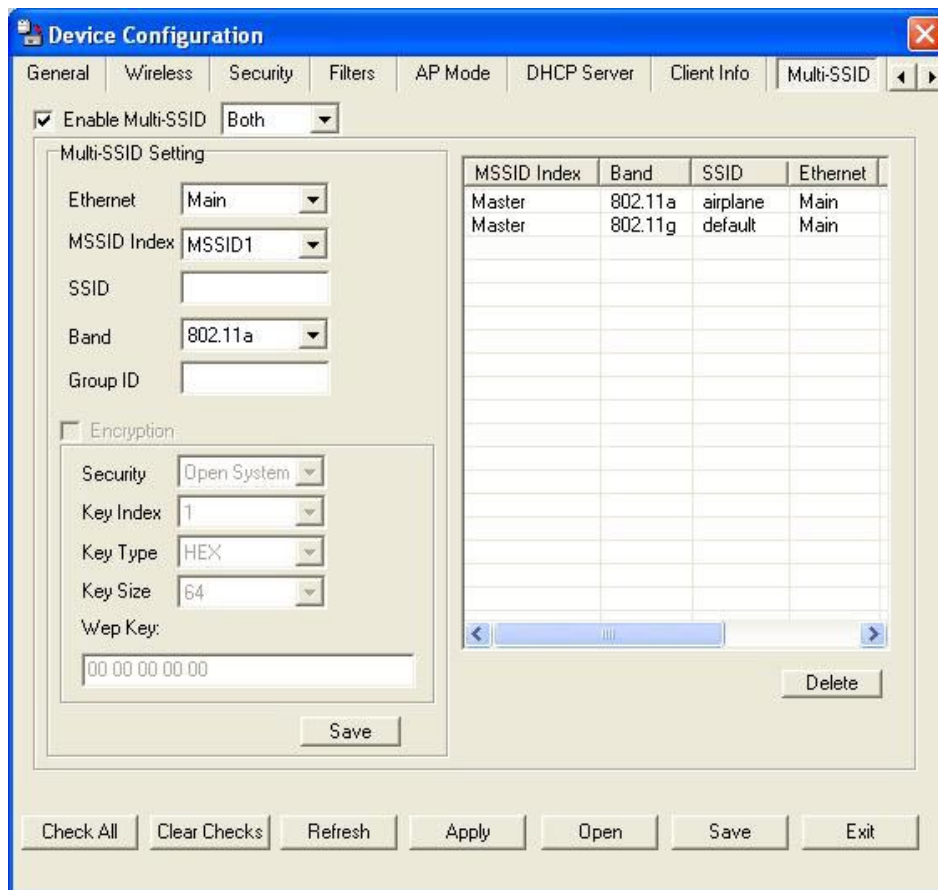
**RSSI:** Indicates the strength of the signal

**Power Mode:** Displays the status of the power saving feature.

**SSID:** Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **default**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.



## Device Configuration > Multi-SSID



**Enable Multi-SSID:** When Multi-SSID is enabled, you can configure your SSIDs for either **both**, **11a** only, or **11g** only networks.

**Ethernet:** Select “**Main**” if you wish to configure the network on LAN 1 (PoE). Select “**Guest**” to set up the network on LAN 2.

**MSSID Index:** You can select up to 7 MSSIDs per band, the default MSSID is the primary, which puts the total to 8 MSSIDs per band.

**SSID:** Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID’s factory default setting is **default**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

**Band:** Select the wireless band (**IEEE802.11a** or **IEEE802.11g**).



## Device Configuration > Multi-SSID (*continued*)

**Group ID:** You can assign a value to group all of the SSIDs to each other. The Group ID is 0 by default, which is also considered Primary SSID. Use Group ID 0-15 for **“Main”**, or use Group ID 16-30 for **“Guest”**.

**Encryption:** **Enable** or **Disable** encryption on the selected device(s).

**Security:** Select either **None**, **Open System**, or **Shared Key**.

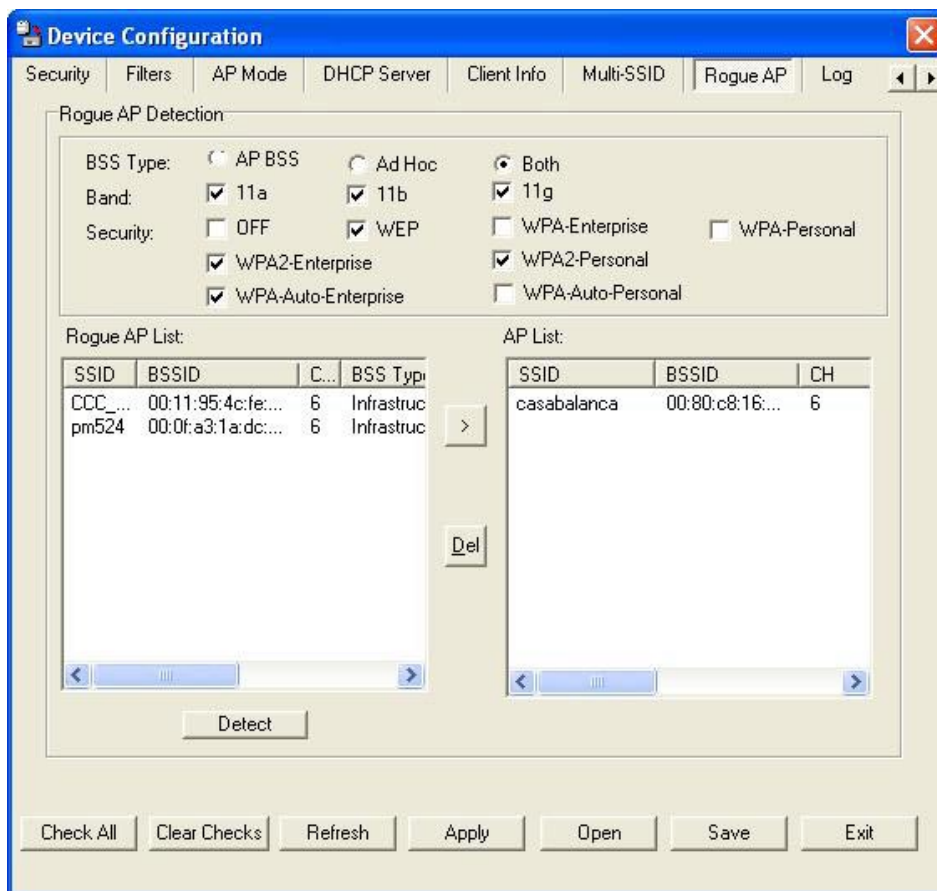
**Key Index:** Select which defined key is active on the selected device(s).

**Key Type:** Select **HEX** or **ASCII**.

**Key Size:** Select **64-bit**, **128-bit**, or **152-bit**.

**WEP key:** Enter a string to use as the key.

## Device Configuration > Rogue AP



**BSS Type:** The Basic Service Set Type allows you to select from **AP BSS**, **Ad Hoc**, or **Both**.

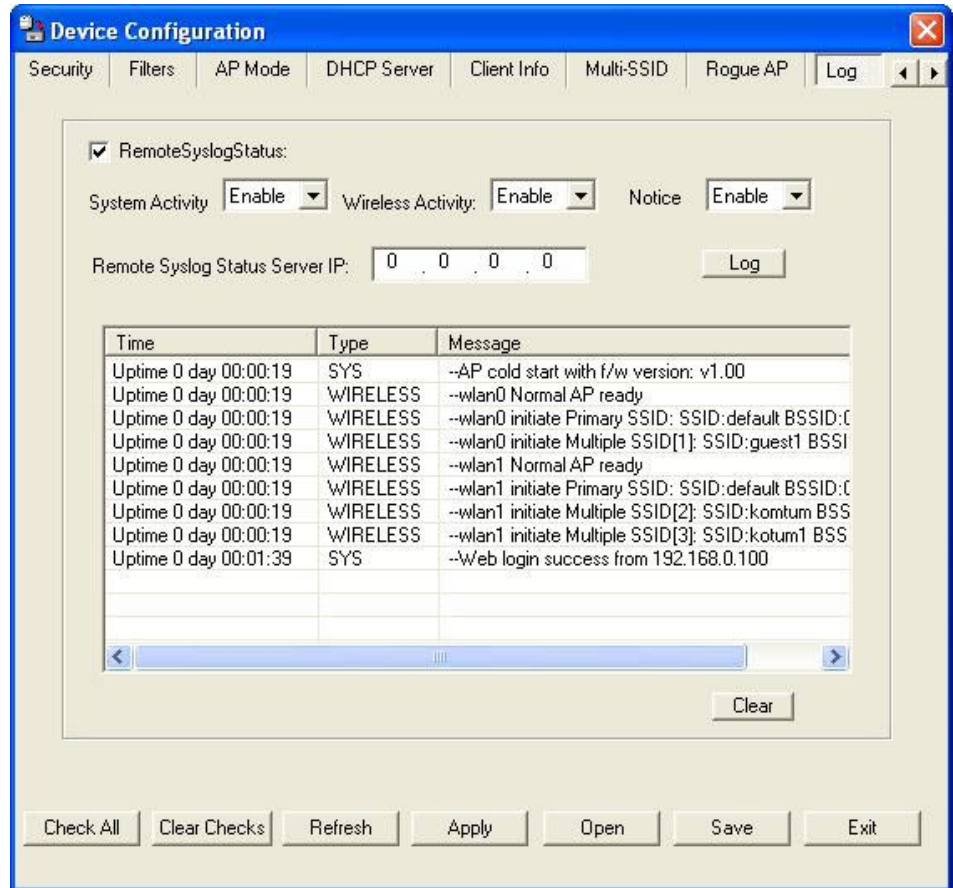
**Band:** Select the type of network (bands **11a**, **11b**, and **11g**) that you would like the AP detection to search on.

**Security:** Select the Security type **Off**, **WEP**, **WPA-Enterprise**, and **WPA-Personal** that you would like to be consider during AP detection.

**Rogue AP List:** This window shows all of the neighbor APs detected, which is based on your criteria from above (BSS Type, Band, and Security). If the AP is in the same network, or if you know the AP, just click on “**Add**” to save it to the AP list.

**AP List:** This window shows all of the APs that are allowed access on the network.

## Device Configuration > Log



**RemoteSyslogStatus:** Check this option to enable the log and the Remote Syslog Status Server IP.

**System Activity:** Select **Enable** to allow the logging of system actions, such as logging a firmware upgrade.

**Wireless Activity:** Select **Enable** to allow the logging of any wireless clients that connect to the AP.

**Notice:** Select **Enable** to allow all other information to be logged.

**Remote Syslog Status Server IP:** If you require more space to hold your logs, please provide the IP address of the Server that will store your logs. The embedded memory can only have up to 500 logs.

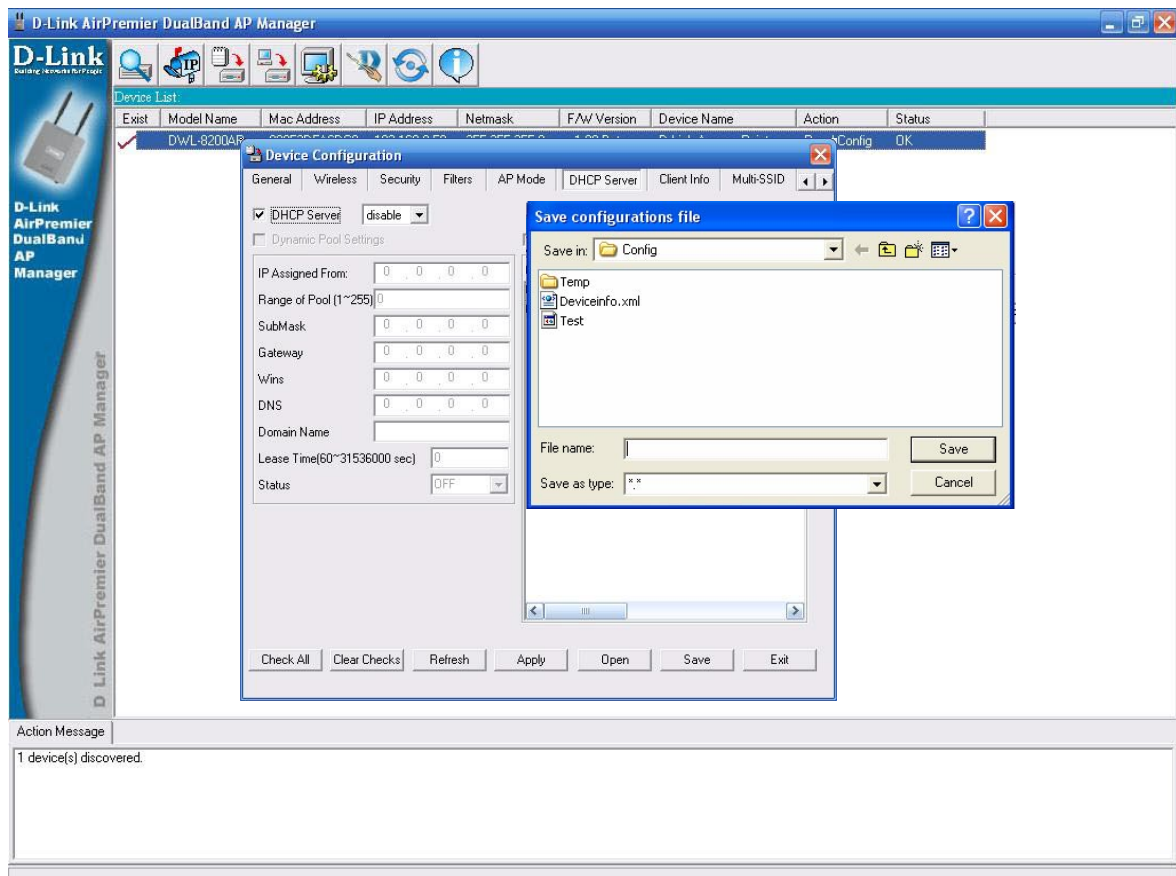
## Configuration Files

The **DWL-8200AP** allows you to save the device settings to a configuration file. To save a configuration file follow these steps:

- Select a device from the Device List on the main screen of the AP Manager.
- Click the device configuration button.
- Click the Save button after you have all the settings as you want them.
- A popup window will appear prompting you for a file name and location. Enter the file name, choose a file destination, and click Save.



Device Configuration button.

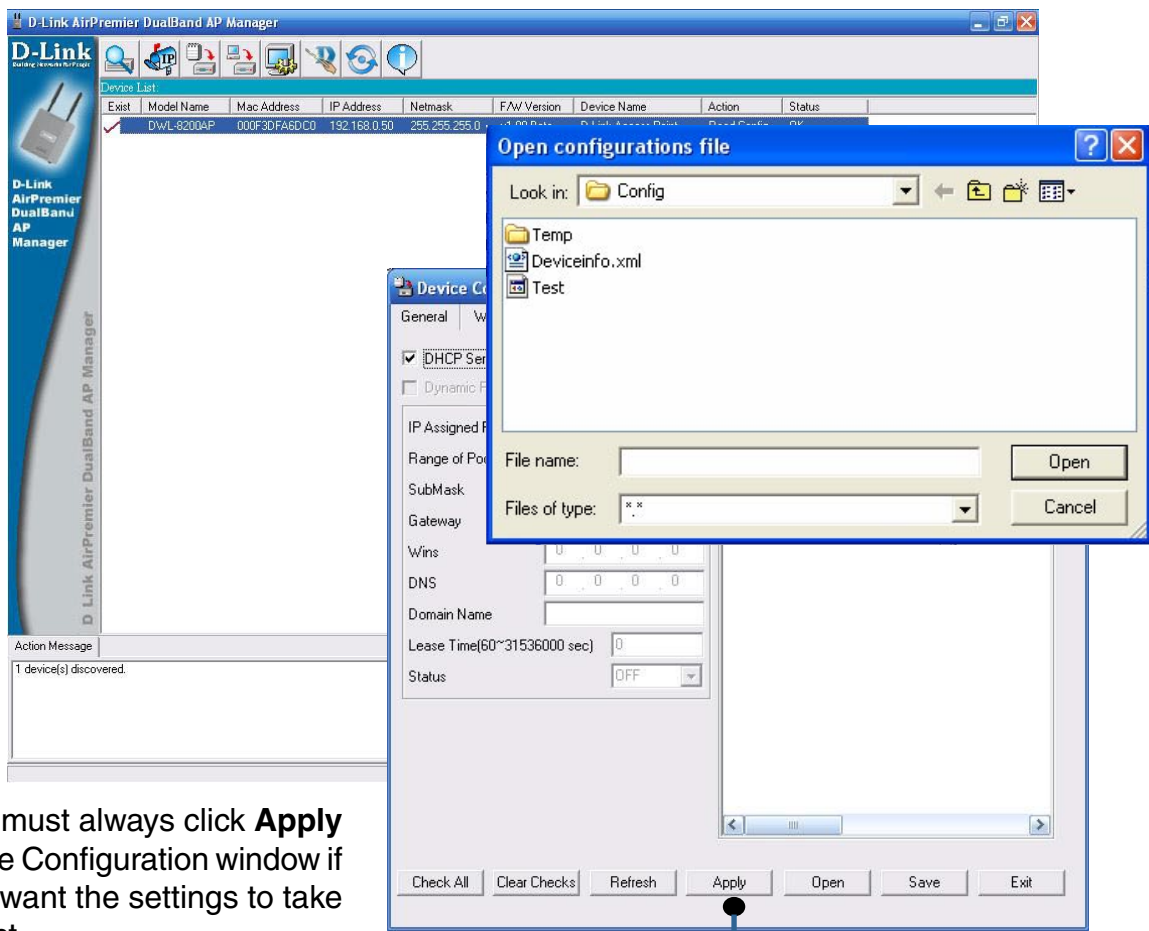


To load a previously saved configuration file, follow these steps:

- Select a device from the Device List on the main screen of the AP Manager.
- Click the device configuration button.
- Click the **Open** button.
- A popup window will appear prompting you to locate the configuration file. Locate the file and click **Open**.
- The configuration file is loaded into the AP Manager but has not actually been written to the device(s). If you want to use the newly loaded configuration for the selected device(s), click **Apply** and the configuration settings will be written to the device(s).

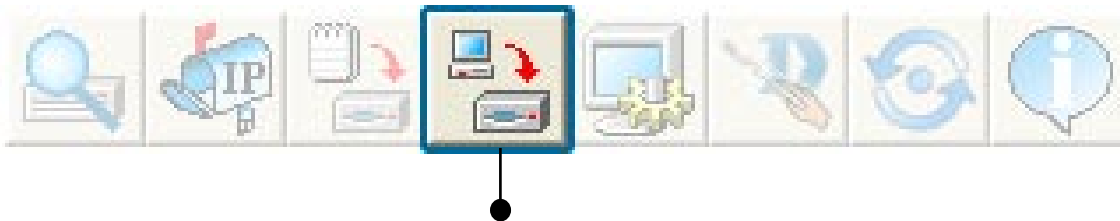


Device Configuration button.



You must always click **Apply** in the Configuration window if you want the settings to take effect.

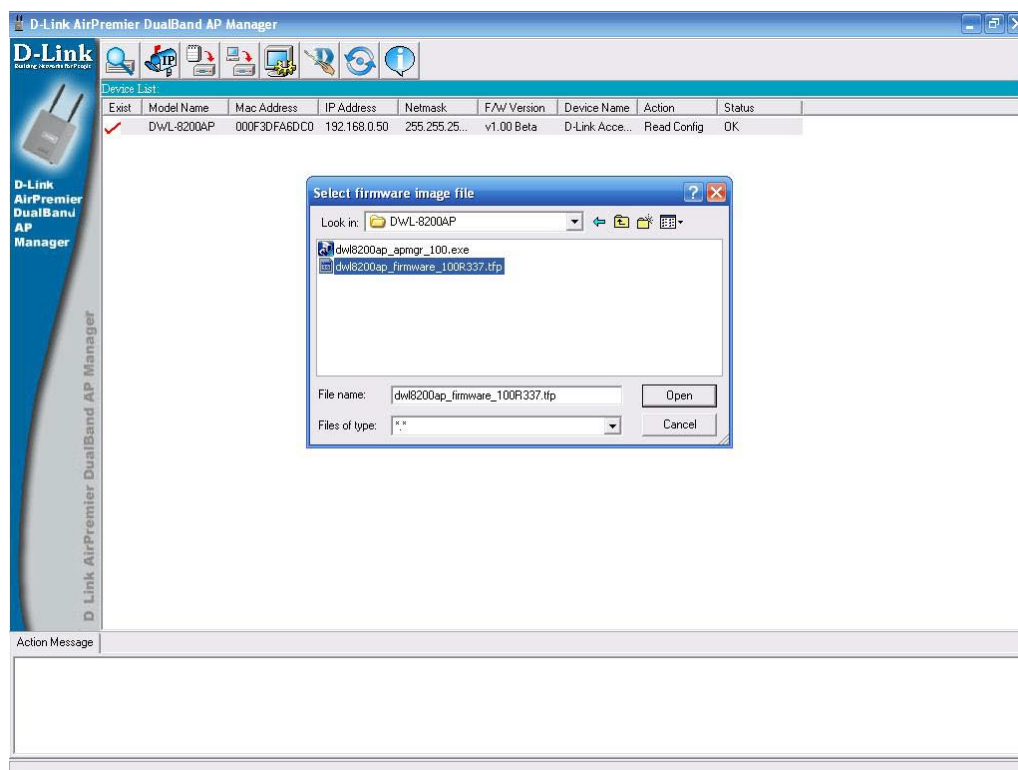
## Firmware



You can upgrade the firmware by clicking on this button after selecting the device(s).

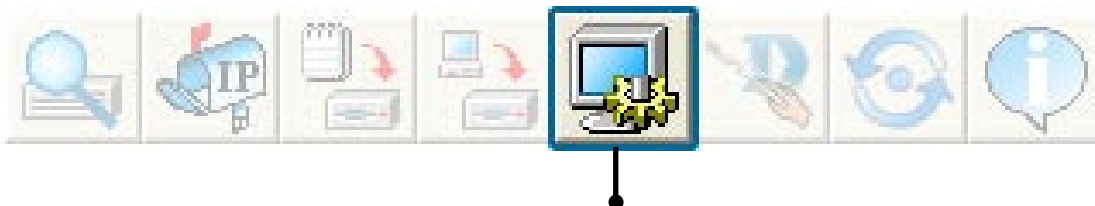
To upgrade the firmware:

- Download the latest firmware upgrade from <http://support.dlink.com> to an easy to find location on your hard drive.
- Click on the firmware button as shown above.
- A popup window will appear. Locate the firmware upgrade file and click **Open**.

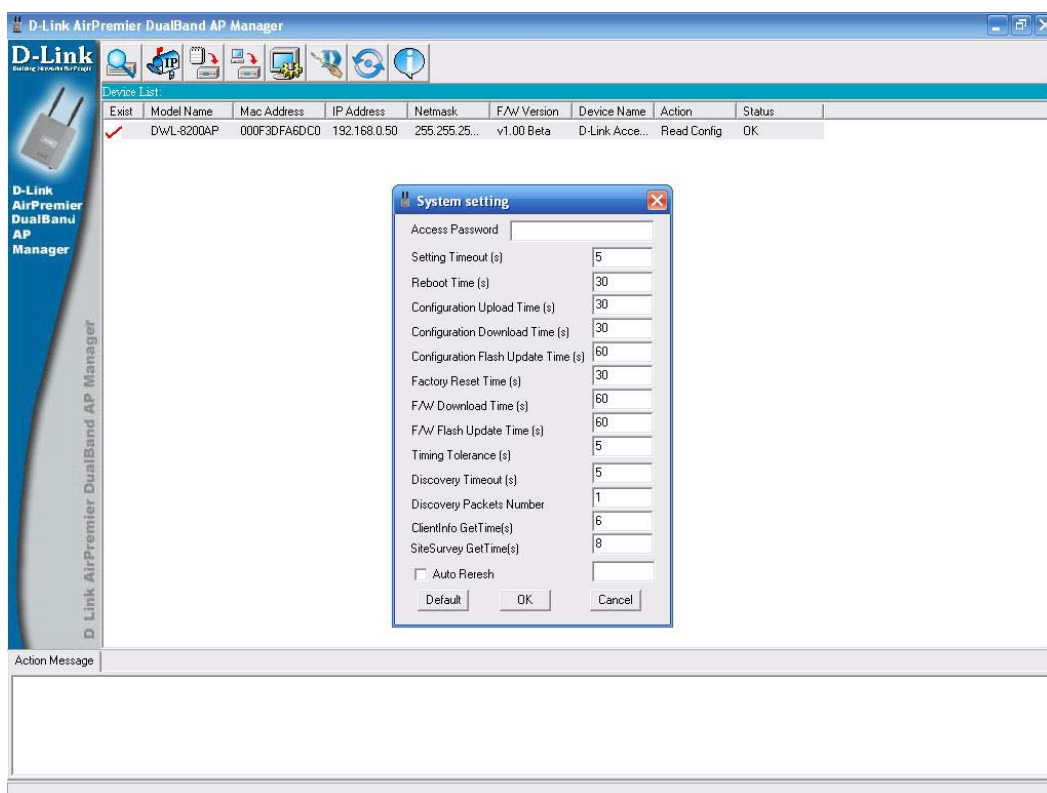


**IMPORTANT! DO NOT DISCONNECT POWER FROM THE UNIT WHILE THE FIRMWARE IS BEING UPGRADED.**

## System Settings



You can customize the basic System Settings for the **DWL-8200AP** by clicking on this button.



- **Access Password:** This sets the admin password for the selected device(s).
- **Auto Refresh:** This setting allows you to enable auto refreshing of the network device list. By default this option is disabled. If you choose to enable it, you must enter the refresh interval in seconds.

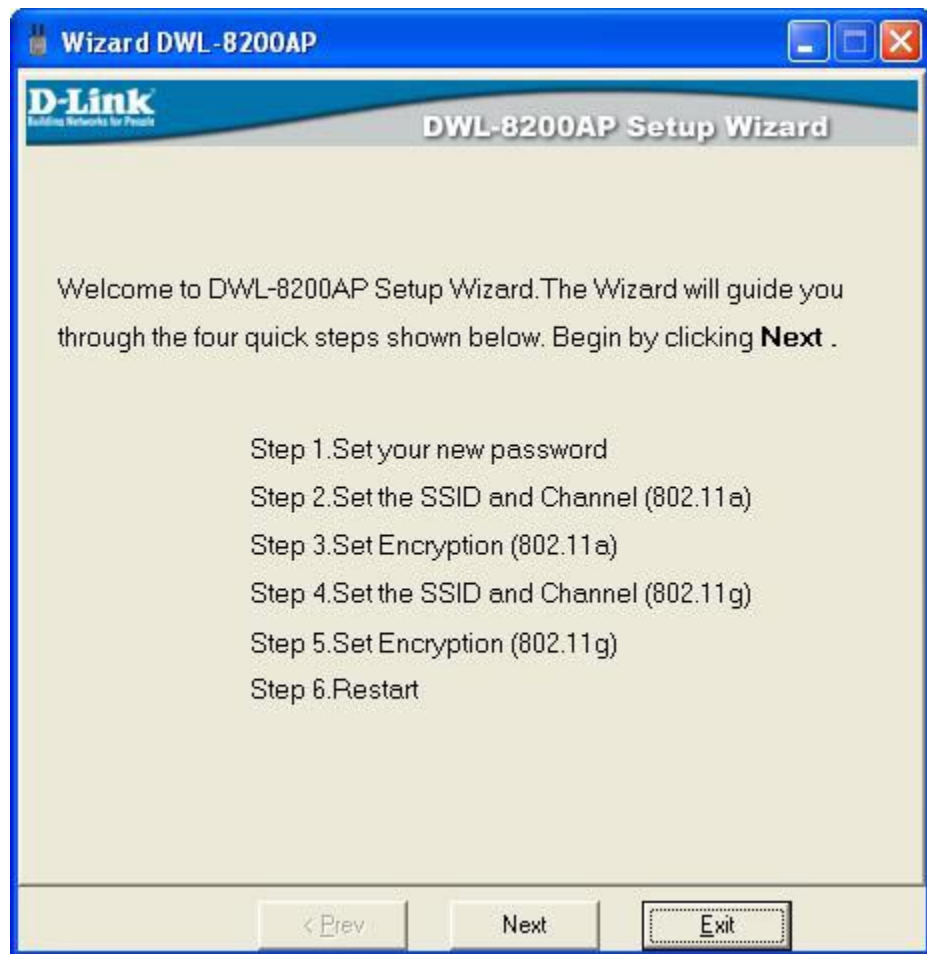
All other settings on this screen should be left at the default setting.



## Setup Wizard

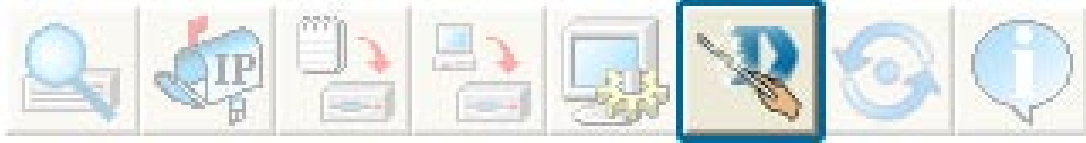


This button will launch the Setup Wizard that will guide you through device configuration.



Click **Next**.

## Setup Wizard (continued)



Enter a **Password** and retype it in the **Verify Password** field.



Click **Next**.

## Setup Wizard (continued)



Enter the **SSID** and the **Channel** for the IEEE 802.11a network.



Click **Next**.

Select **No Security**, if you do not require a method of encryption.



Click **Next**.

## Setup Wizard (continued)



Select **WEP**, as your method of encryption. A **Key Size** and **First Key** value are required.



Click **Next**.

Select **WPA-Personal**, as your method of encryption. A **Pass Phrase**, and **Group Key Update Interval** are required.



Click **Next**.

## Setup Wizard (continued)



Enter the **SSID** and the **Channel** for the IEEE 802.11g network.



Click **Next**.

Select **No Security**, if you do not require a method of encryption.



Click **Next**.

## Setup Wizard (continued)



Select **WEP**, as your method of encryption. A **Key Size** and **First Key** value are required.

Click **Next**.



Select **WPA-Personal**, as your method of encryption. A **Pass Phrase**, and **Group Key Update Interval** are required.

Click **Next**.



## Setup Wizard (continued)



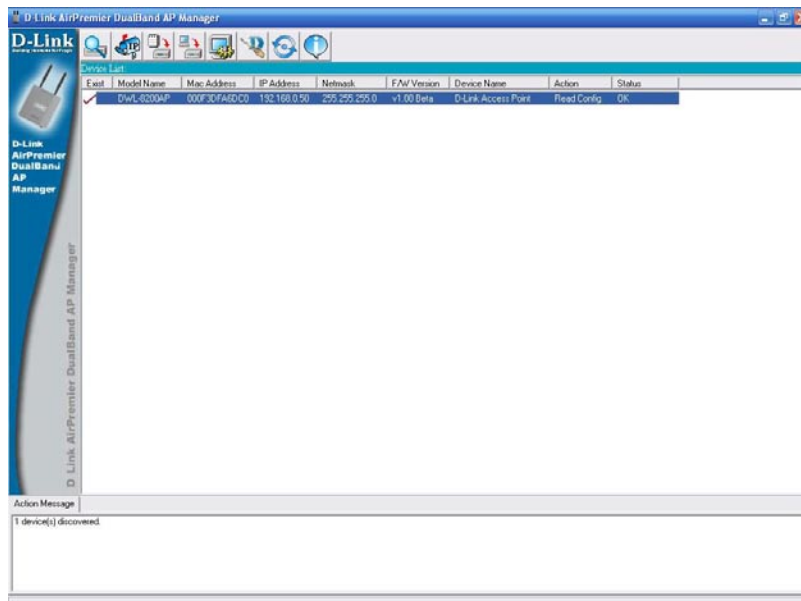
The **DWL-8200AP** setup is complete!

## Refresh



Click on this button to **refresh the list of devices** available on the network.

Devices with a checkmark next to them are still available on the network. Devices with an X are no longer available on the network.



## About



Click on this button to view the version of AP Manager.

