Wireless USB Network Adapter Configuration Utility Help

The utility contains five property pages: LinkInfo, Configuration, Site Survey, Encryption, Advanced and About pages. The information of each page is explain below:

LinkInfo Page
Configuration Page
Site Survey Page
Encryption Page
Advanced Page
About Page

LinkInfo Page

This provides information about the current link between the Wireless USB Network Adapter and its wireless network connection.

Re-Search- The control button allows you to re-search the available wireless network. Sometime the Wireless USB Network Adapter might not be able to establish a connection to the specified network because of link quality. In that case, try to click the Re-Search button to re-search again.

State- The current status of the Adapter's connection.

Current Channel- The channel that your adapter is using. The possible channels are 1 through 11.

Current Transfer Rate- The transfer rate in megabits per second.   The possible transfer rates are 1, 2 , 5.5, and 11 Mbps. When the transfer rate is set as Auto Rate, the Current Transfer Rate is switch between 1, 2, 5.5, and 11 Mbps automatically based on the current Link Quality.

Current Service Set Identifier(SSID)- The Service Set Identifier(SSID) of the wireless network used by the adapter.

Frames- A frame is a set of data transferred over wireless transmission.   These values shows how many frames are transmitted and received by the USB Adapter.

Link Quality- The signal quality of the connection between the Adapter and the Access point it connects to.   A higher percentage value signifies more stable transmission. If the link quality is poor, that is, fewer than 25%, you may be disconnected.   In that case, move your PC closer to the Access Point.

Signal Strength- The signal strength between the Access Point and your USB Adapter. A higher percentage value signifies more signal strength.   If the **Signal Strength** is poor, that is, fewer than 25%, move your PC closer to the Access Point.

Link Quality and **Signal Strength** option is only used in **Infrastructure** mode.   In **Ad-Hoc** mode, this option is automatically disabled.

Configuration Page

This allows you to customize the settings of your Wireless USB Network Adapter and your wireless network.

Wireless Mode- The wireless mode setting determines the architecture of your wireless network. Select Ad-Hoc or Infrastructure mode depending on your network type.   The Ad-Hoc mode is used for simple peer to peer network and allows the sharing of local resources only between the Wireless USB Network Adapter without needing a wireless Access Point.   The Infrastructure mode allows a wireless network to be integrated into an existed, wired network through an Access Point. Infrastructure networks permit roaming between Access Point while maintaining a connection to all network resources and providing additional features, such as power saving and extended range.

Service Set Identifier (SSID) - The Service Set Identifier setting determines the identifier of the wireless network to which the Wireless USB Network Adapter wants to connect.   This identifier is case-sensitive and must not exceed 32 characters.

Transfer Rate- This setting determines the transfer rate of the Wireless USB Network Adapter.   The default setting, Auto Rate, allows the adapter to automatically adjust the transfer speed for optimal performance and the longest operating range. When Auto Rate is used and the transfer rate jumps between two transfer rates frequently, try using the lower transfer rate in fixed mode to achieve a more stable connection.

Otherwise, you may manually designate your wireless transfer rate as 11Mbps (the highest rate), 5.5Mbps, 2Mbps, or 1 Mbps. Note that the higher the transfer rate is, the shorter the connection distance is.

Power Saving Mode- The power saving mode is only valid when the Wireless Adapter is set in Infrastructure mode.   If the power saving mode is enabled, the Adapter will enter sleep mode when there is no data to transmit and periodically wake up to check whether   there is any data need to received.

Channel- The channel setting is valid only when the Wireless Mode is set to Ad-Hoc mode, meaning there is no Access Point being used.

When the USB Adapter is set to Infrastructure mode, it must connect to an Access Point, and the Adapter's channel setting will automatically be set to the same channel that the Access Point using.

This disables the channel setting option, so you don't need to manually set the channel number in Infrastructure mode.

Site Survey Page

Site Survey shows the list of last found Access Points available to your Wireless USB Network Adapter.   The list information includes:

Service Set Identifier (SSID)
Basic Service Set Identifier (BSSID): that is, the MAC Address of the Access Point
Channel
Signal Strength: denoted in percentages
Encryption Mode(WEP): Yes (64-bit or 128-bit) or No (Disabled)

To refresh the list, click the **Search** button. When the search is finished, the list will show all available Access Points. To connect to one of the Access Points on the list, select the desired Access Point by clicking the SSID field of the entry, then click the **Connect** button to connect to the Access Point.

Encryption Page

The Encryption includes the current setting of the Wired Equivalent Privacy (WEP).

Encryption Mode (WEP) –

If you want to use encryption as security on your wireless network, you can enable 64-bit or 128-bit WEP encryption.   If you use 64-bit or 128-bit encryption, all other access points and network adapters must also be enabled for 64-bit or 128-bit encryption, respectively.

You may also select **Disable** WEP if you do not care to use encryption on your wireless network.

The 64-bit and 128-bit WEP encryption algorithm provided by RSA uses RC4 encryption and decryption, which is based on a 40-bit key and 104-bit key respectively.

WEP Key Entry –

When 64-bit or 128-bit encryption mode is activated, the user should provide up to four sets of 40-bit keys or 1 set of 104-bit keys (Key #1) for encryption and decryption. These setting must be the same for all other devices on the wireless network.

If you want to start over, click on the **Restore Defaults** button

Default Tx Key- The Default Tx Key determines which of the four key sets is to be used for encryption and decryption. Make sure that the Default Tx Key is identical for all access points on the wireless network to which the Wireless USB Network Adapter will attach. To connect to a Wi-Fi compliant wireless, Key #1 should be used.

Click **Apply Changes** button when you are finished.

Advanced Page

This includes advanced configuration of your Wireless USB Network Adapter. It conatins Transmit Threshold Control, Security and Preamble Type.

Transmit Threshold Control –

Fragmentation Threshold: The threshold defines the maximum data frame size your adapter will transmit. For those transmitted data frames which are larger than the threshold value will be fragmented into several frames. The slider bar allows you to adjust the fragmentation threshold. The threshold value is from 256 to 2346. The value 2346 means to disable the fragmentation function. When the packet error rate is high, you may set the threshold value to transmit shorter frames. Because the shorter frames means lower packet lost rate, but it will cause more overhead, so it is a trad-off.

RTS/CTS Threshold: The threshold defines when will your adapter send out RTS/CTS frames to reserve bandwith for transmission. For those transmitted data frames which are larger than the threshold value will cause RTS/CTS frames be sent out to request bandwith for the transmitted data frames. If your adapter is far away from other nodes, your adapter might be difficult to contend the bandwith against other nodes, because other nodes might not be visible by other nodes. By using the RTS/CTS function, you may request bandwith from AP to allow you have better chance to send out your data.

Security –

It is only applicable while WEP is enabled.

Deny Unencrypted Data Frames: Check the box will deny to receive unencrypted data frames. It's a good idea to deny unencrypted data frames to prevent from unknown intruders probe your station.

Authentication Type: Which authentication algorithm is used. The current supported algorithms are Open System, and Shared Key. The algorithm will be invoked when associated to Access Point. To associate to the desired Access Point you must set the same algorithm as the one of the desired Access Point.

Preamble Type –

Preamble is for framing synchronization. The possible setting are Long and Short. The setting must be the same as the setting of the Access Point you are going to associate.

About Page

This includes the firmware version and driver utility of your Wireless USB Network Adapter.

Information	800-546-5797(LINKSYS)
Technical Support	800-326-7114
RMA	949-261-1288
FAX	949-261-8868
Email	support@linksys.com
WEB	http://www.linksys.com
FTP Site	ftp.linksys.com