Supplemental setup instructions for

Asus AAM6030VI Wireless ADSL Router

(read these notes whilst also referring to the manual supplied with the product)

Quick setup instructions for Asus AAM6030EV ADSL Router

(read these notes whilst also referring to the manual supplied with the product)

1 Supplemental

These setup notes cover the wireless setup for the Asus AAM6030VI Wireless ADSL router. They cover the additional wireless aspects of this product. For basic ethernet and ADSL setup please refer to the standard manual or additional Quick Setup guide.

2 Connecting to your network

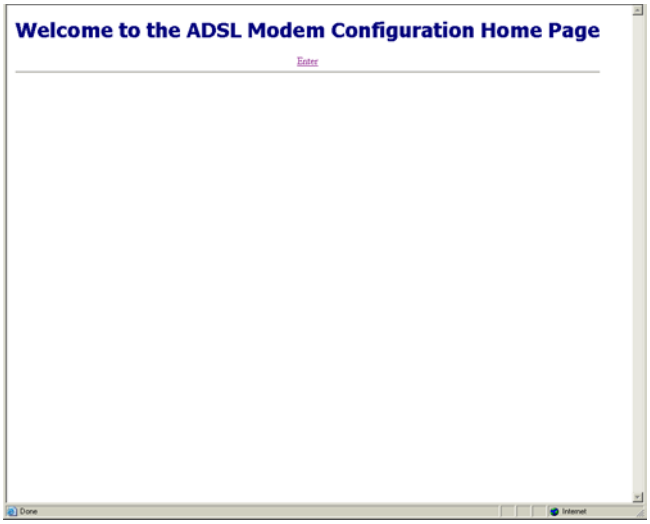
Setup of the wireless features of this router can only be done using a web browser via the LAN. As such initial setup should be done via a standard wire type LAN connection. Connect your PC (or other computer) to one of the LAN ports on the VI router. After you have gone through wireless setup of the router (see below) and your computers wireless adapter you can then wirelessly connect to the router.

3 Configuration

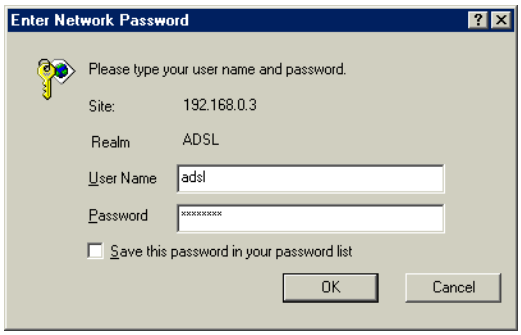
It is assumed that you have correctly setup the TCP/IP settings of the router and your computers LAN card (see other notes). After checking your connections and TCP settings (see above) you are ready to run your browser in order to configure the router.

Any browser can be used on any operating system: The configuration screens are the same. If you are using Explorer then click on your Explorer icon to start your browser.

When your browser starts up enter the IP address of the router as the URL. The browser should then load the startup page from the router:

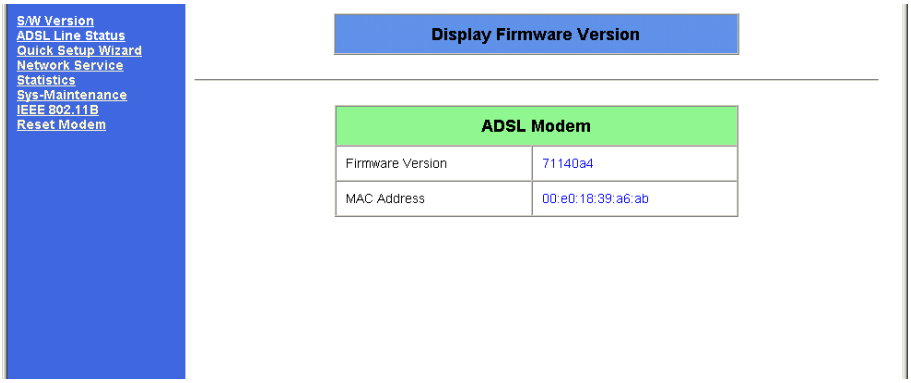


Click in 'Enter' to goto the configuration logon (or if you wait a few seconds this should happen automatically anyway).

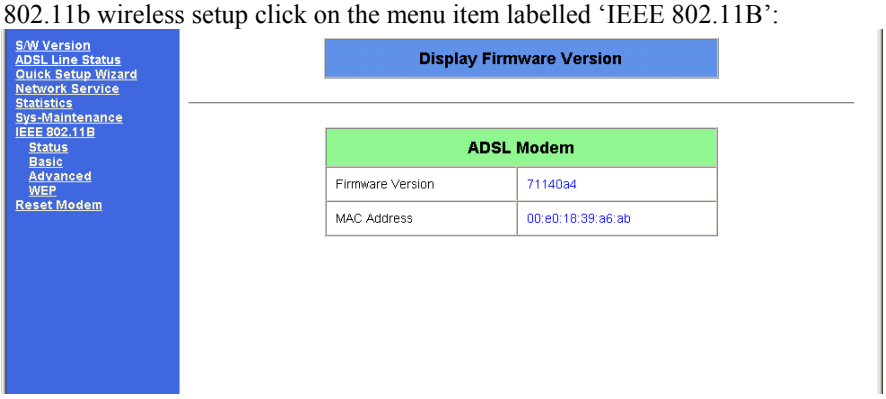


(Don't worry that the example above shows the router address as 192.168.0.3 – this is the address we've used on our network. If you left the addresses as default in the router then yours will show as 192.168.1.1).
Now enter the default user name and password.

Click OK and you should then goto the main configuration menu.



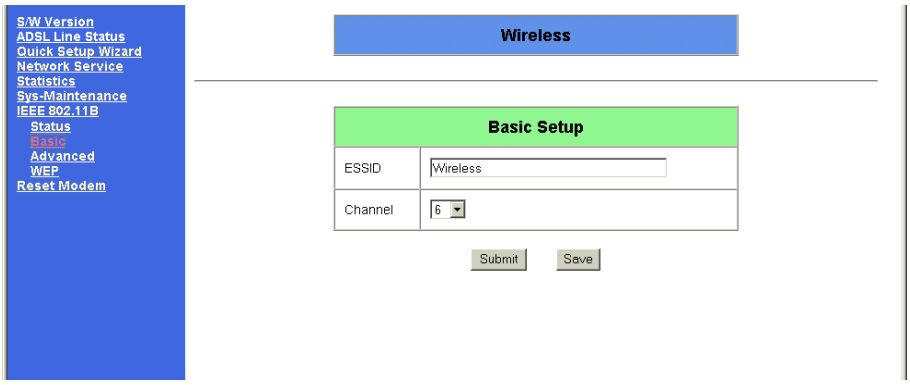
Now, to configure the 802.11b wireless setup click on the menu item labelled ‘IEEE 802.11B’:



There are two basic ways of running your wireless network:
With WEP security and without WEP security. It’s easiest to start without security.

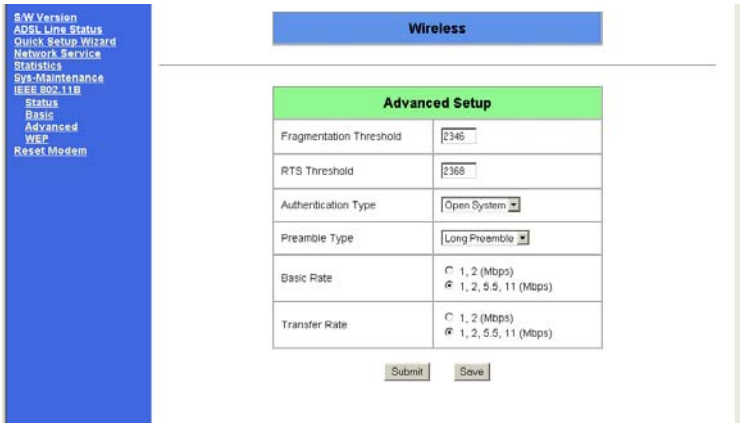
3.1 Configuration with no WEP security

Click on IEEE/Basic:



Ensure that the Channel and ESSID (if used by your computers wireless adapter) match those used by your wireless clients. If you have to change any settings then click on submit and then on save to store the changes.

Next click on Advanced:

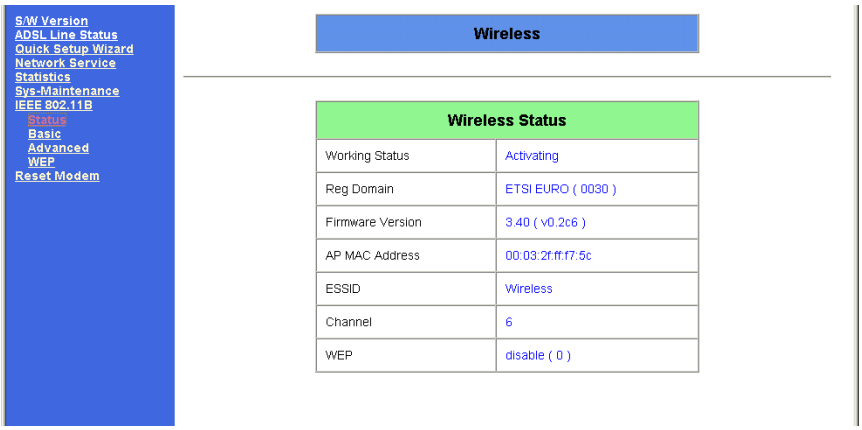


Things to check on this screen are that the Fragmentation Threshold and RTS Threshold match those used on you wireless clients adapters. Check that the Authentication type is set to ‘Open System’; this means NO security. Check that Basic and Transfer Rates are both set to 1,2,5.5,11 (so that the router will accept connection from wireless clients at any standard 802.11b speed). As before, if you have to change any settings then click on submit and then on save to store the changes.

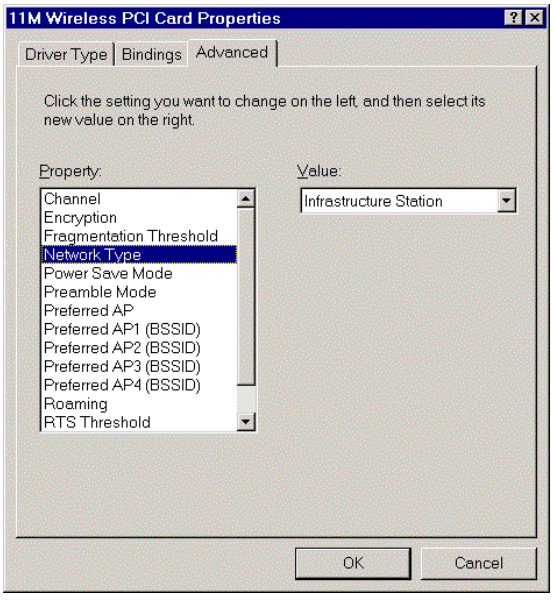
Now click on WEP:

Since we are using NO security you must ensure that the WEP setting shows disabled. Remember to click on submit and then save if you change any setting.

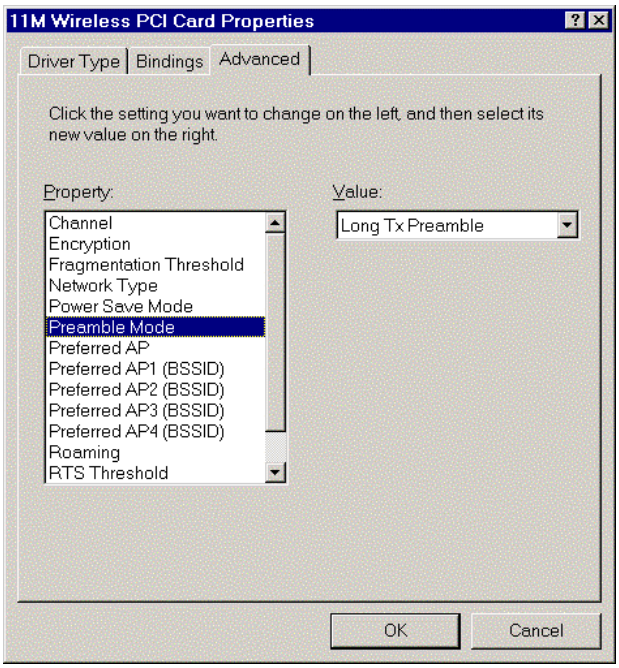
Finally click on Reset Modem to reboot the router. Then, after the router has restarted goto the IEEE/Status page:



Now you must check the settings of your wireless clients to ensure their setup exactly matches the router setup as you've just done above. One thing you must check is that your clients are set in 'Infrastructure' mode. This means that the clients expect to communicate via the access point built into the router. The alternative setup is called Ad-hoc or sometimes peer-to-peer. With Peer-to-peer client setup each clients expects to talk to another client. If the clients are set this way they won't be able to communicate with the VI router (A good analogy to use for the different between Infrastructure and Peer-to-peer is to compare with using normal copper network cables to connect clients together. If the clients are connected via a network hub then a standard CAT5 LAN cable is required. But, if the connect direct i.e. a cable connected directly from the back of one PC to the other PC, then they need to use a cross-over LAN cable; the normal LAN cable won't work).



Also check that the Preamble mode for your clients match the router. The default for the router is 'Long' so your clients must also be set to 'Long'



If you've done this correctly then your wireless clients should now be able to see the router. You can test this by running a browser on your client and entering the IP address of the router: The router sign on screen should display.

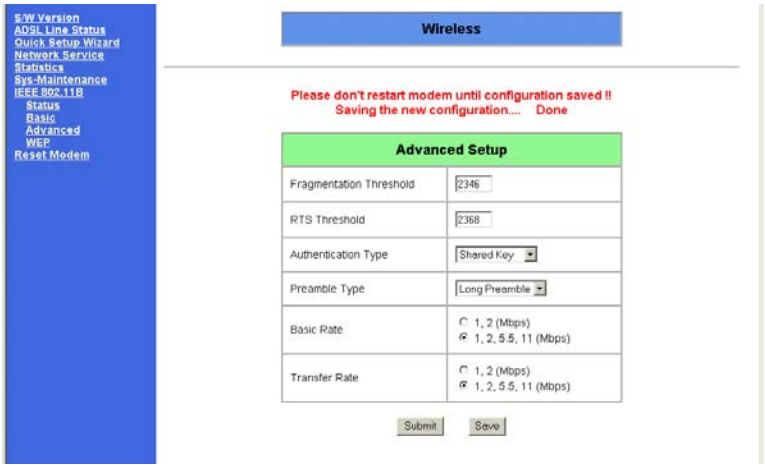
You should also be able to 'see' your wireless clients from any LAN based clients connected via the LAN ports on the VI router (and vice-a-versa).

3.2 With WEP security

If you are really worried about network security (I can't imagine the average home user being all that bothered) you can configure the VI router to use 64 or 128 bit WEP security. This security relies upon both the router and your clients using an encryption key word on all transmitted and received data.

3.2.1 Setup the Router

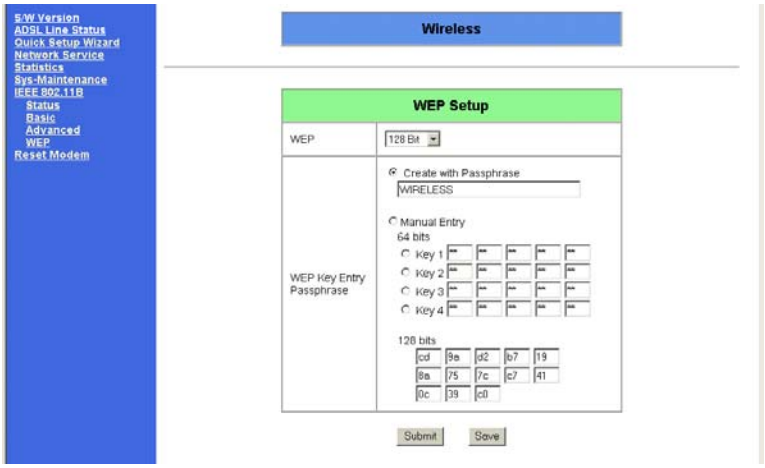
To configure WEP security on the router first of all go to the IEEE/Advanced page:



Now select 'Shared Key' as the Authentication Type. Remember submit and then save to store the changes.

Now you need to setup a WEP encryption key.

Click on WEP:

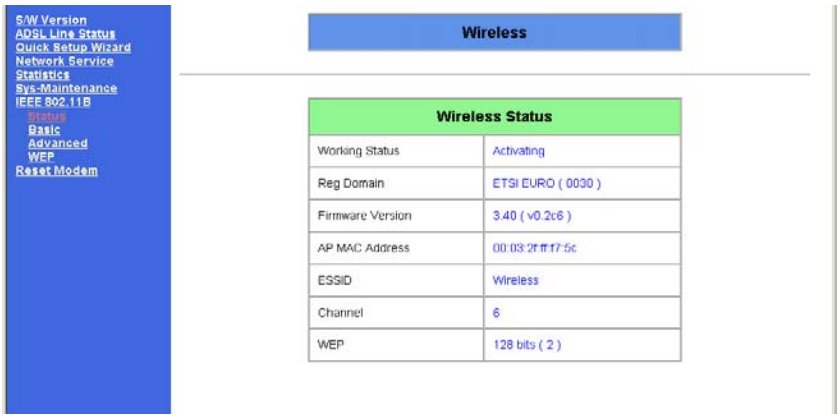


Now select 128 Bit for WEP (for this example we'll use 128 encryption).

Now you need to enter an encryption key. The easiest way to make a key is enter a word in the Passphrase box and then click on Submit. TAKE CARE: the 'Create with Passphrase' feature is case sensitive. So, in the example above 'WIRELESS' (all caps.) gives a different key than 'wireless' (lower case).

Now click on Save to store the settings.

After doing these changes the IEEE/Status page should look like this:

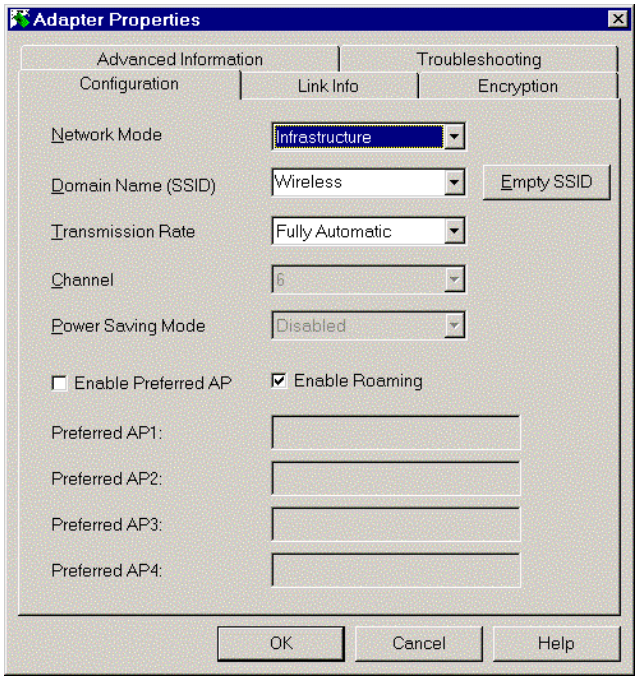


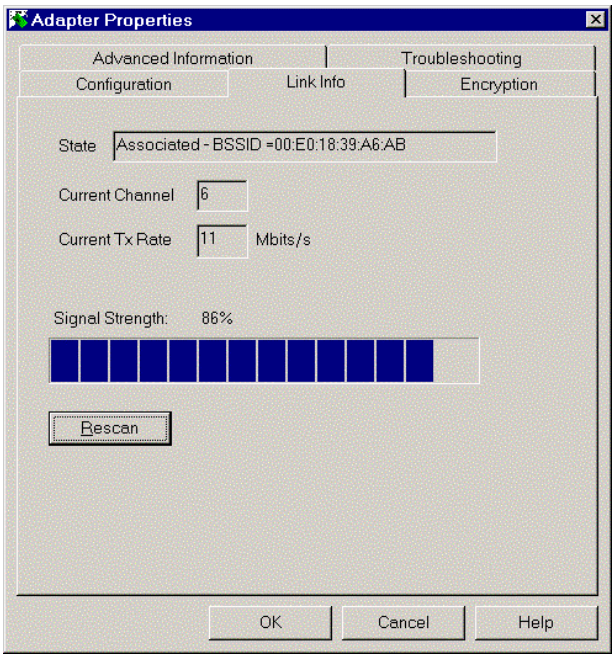
3.2.2 Client Setup for PCI

With WEP security it is especially important that you get the client setup exactly correct: Get it wrong and it just won't work!

For the purposes of this example setup will be for the Pheenet PCI wireless network card. However the principles are the same and will apply equally to any other make or brand of wireless adapter.

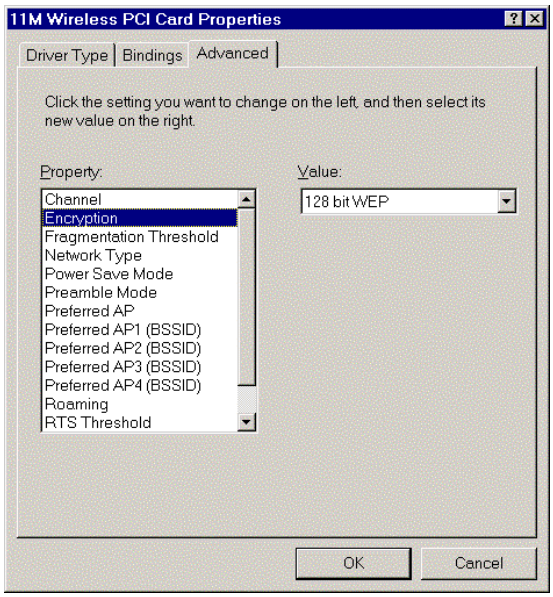
First of all install the drivers and setup utilities for your wireless card. Now goto to Control Panel (assuming a Windows PC) and click on Network. Next click on the Properties for your wireless network adapter:





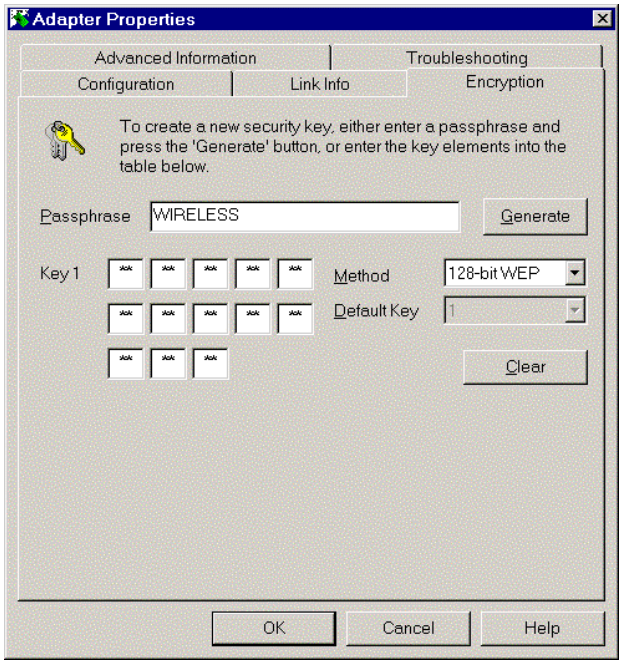
Now check that the Channel number, Fragmentation Threshold, Preamble (Long), RTS Threshold, SSID (Wireless), and Transmission Rate match the router setup. Also check that the Network Type is Infrastructure.

Now check that the Encryption is set to 128 Bit (to match the router):



You will now need to correctly setup the WEP security key for the clients. For the Pheenet PCI wireless card this means running a separate utility. So, exit the Properties setup for your adapter, saving any changes you've done (you may need to reboot your PC).

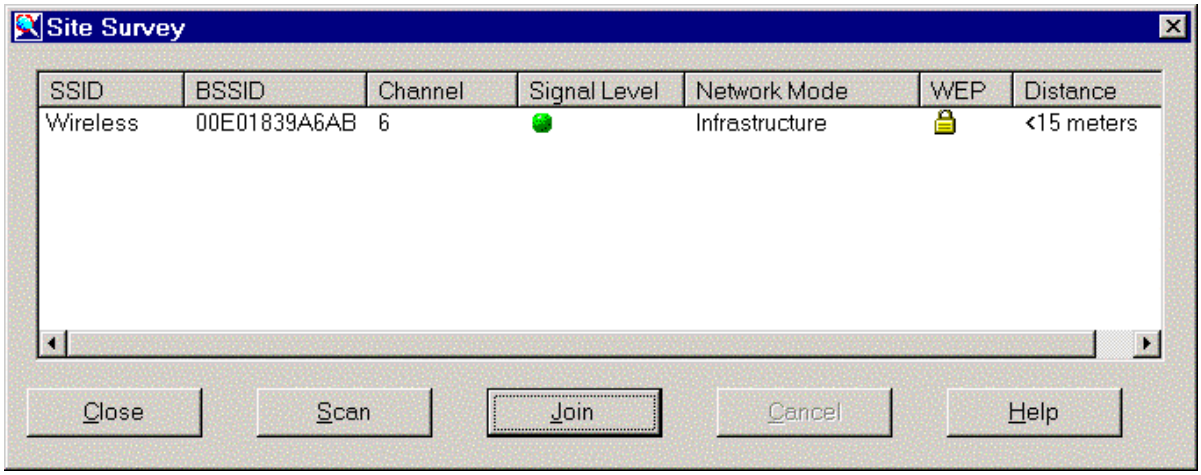
Now setup the WEP security:



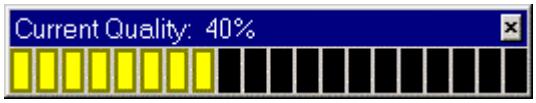
Ensure that the same security settings are used on your clients i.e. 128 Bit and use the same WEP key. The Pheenet setup utility allows you to create the key from a Passphrase. As with the router ensure that you correctly observe character case (i.e. lower or upper) when entering the passphrase. If your adapter key setup doesn't have this passphrase feature than you must manually copy the key numbers from the router setup (e.g. 'WIRELESS' is cd 9a d2 b7 19 8a 75 7c c7 41 0c 39 c0).

Now save the settings for your client (as before you may need to reboot your computer for the changes to take effect).

If all's gone according to plan your wireless client should now be able to see the VI router:



If your wireless adapters have a signal strength utility then this can be used to check how good a signal you are getting from the VI router:



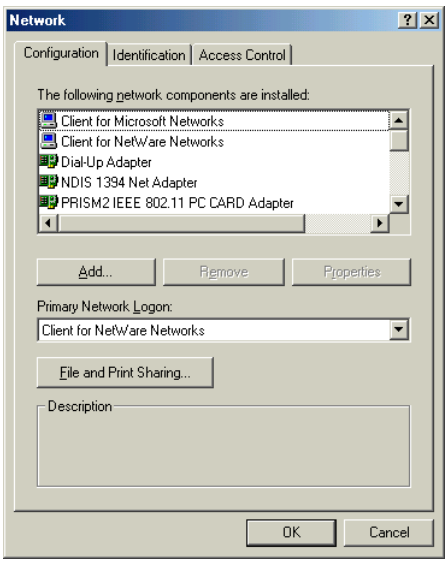
If your clients cannot see the router but they could with security off (see above) then the reason for it not working now will be because you've made a mistake with the security setup of either your router or client. Take great care typing in the security settings, particularly the WEP key. A single number wrong and it won't work! You probably won't even be able to use the signal strength utility to 'see' the router.

3.2.3 Using a PCMCIA Wireless card

Setup for the PCMCIA Card (based upon the Pheenet WL-0011 PC card) follows the same guidelines as per using the PCI card i.e. ensure that all settings for VI router and the PCMCIA card are the same. Get any setting incorrect and the chances are it

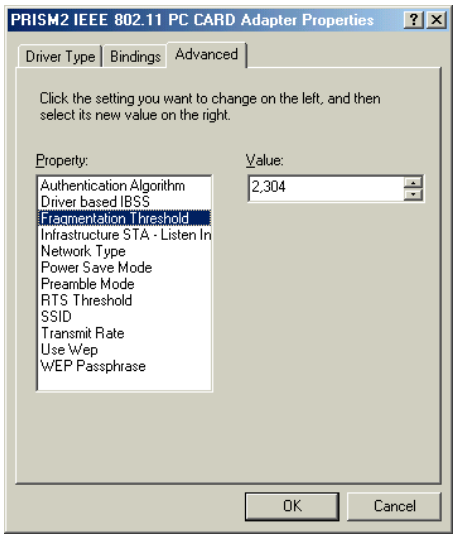
won't work! Also, try setting the configuration without security first of all. Once you have the connection working that way you can then go and add the security.

First of all ensure the PCMCIA card is correctly installed with no resource/driver problems. Next goto Control Panel/Network:

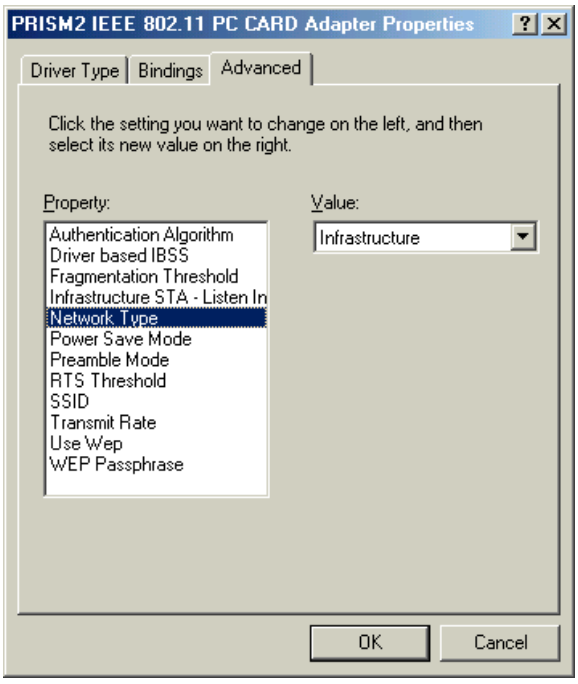


Next select the Properties of the PCMCIA card (PRISM2 IEEE...) and then go to Advanced:

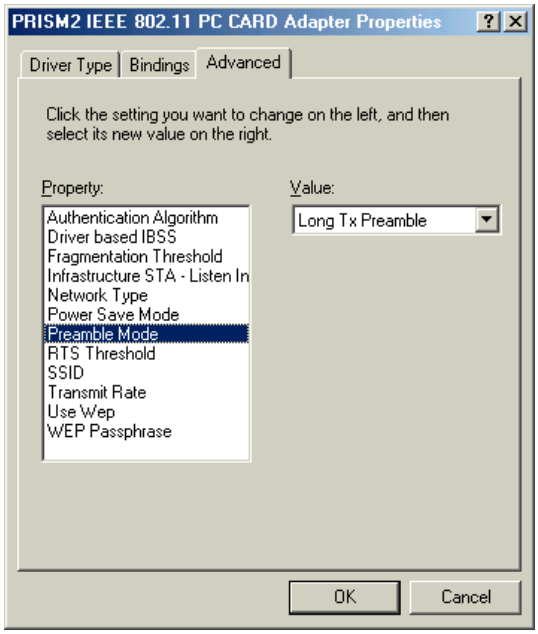
Now it's just a case of ensuring that every setting of the card matches the router....



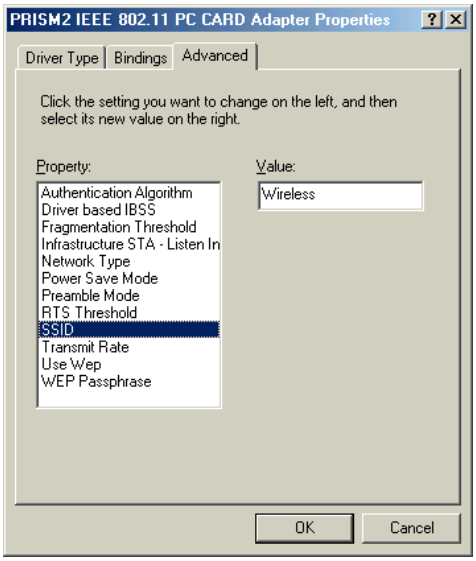
First of all check the Fragmentation Threshold – the default setting for the router is 2304 (check this on the 'IEEE 80211b/Advanced' screen). Alter the card setting to match.



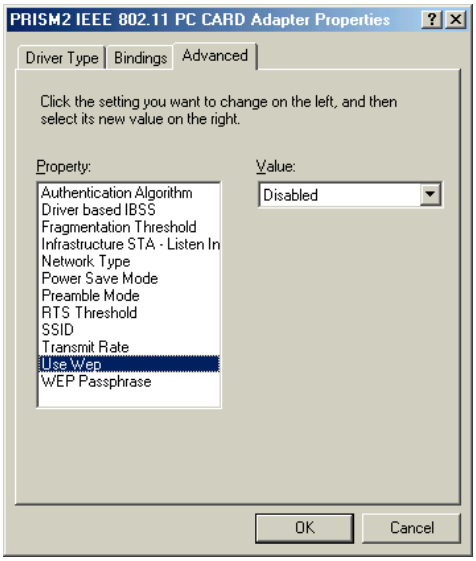
Next check the Network Type – when using the VI router (or an access point) you need to use **Infrastructure**. The other possible setting is Peer-to-Peer which is the setting you use when configuring and client-to-client setup.



Next ensure that the Preamble is set the same as the router; normal setting is Long TX.

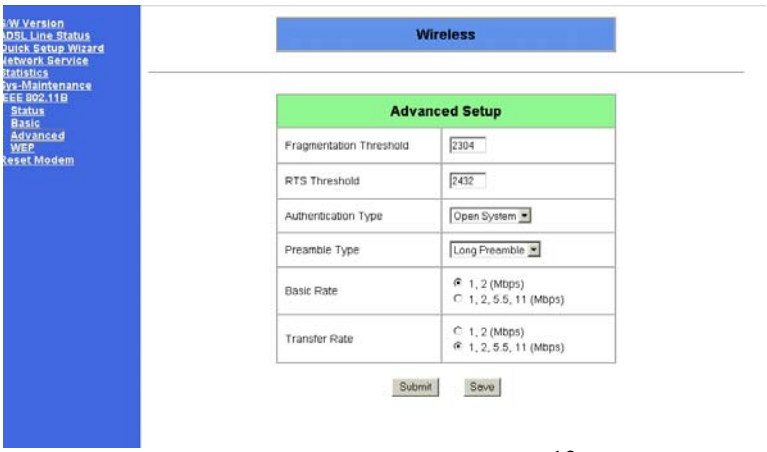


Next check the SSID string: It must be the same for both the router and the PCMCIA card. The default setting for the router is 'Wireless':



Finally turn Wep off (at least for this initial testing anyway):

Now check that the router settings are the same....
So check the SSID matches the PCMCIA card ('Wireless')...
The Channel setup doesn't matter for the PCMCIA card because the card driver will auto-scan until it finds the channel to use.
If you do any changes you need to a Submit and then a Save to store the new values.

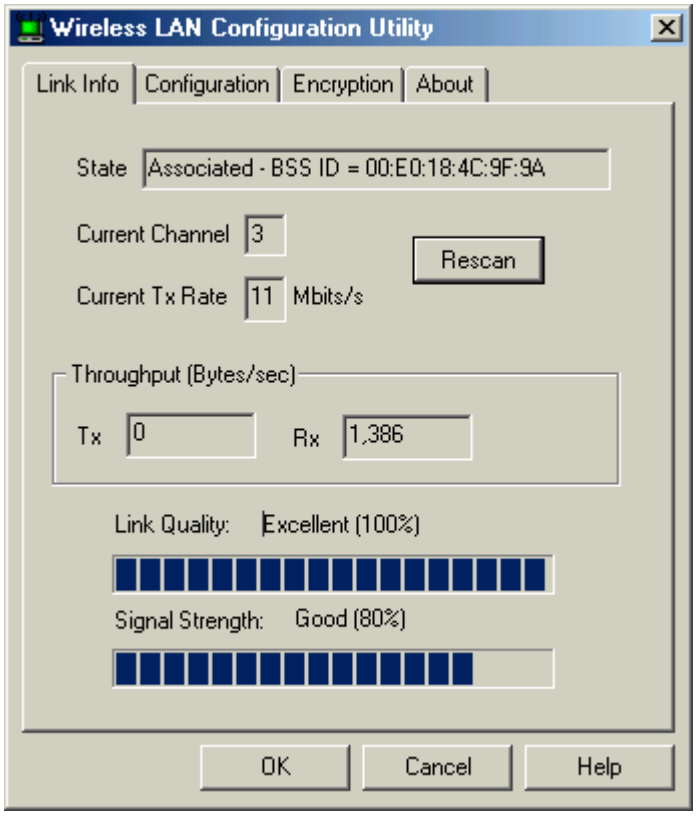


Next check the Fragmentation Threshold, and the RTS Threshold, and set the Authentication to Open.

If you do any changes you need to a Submit and then a Save to store the new values.

Finally Reset the modem to activate the new changes.

Now... after rebooting the wireless link should work:

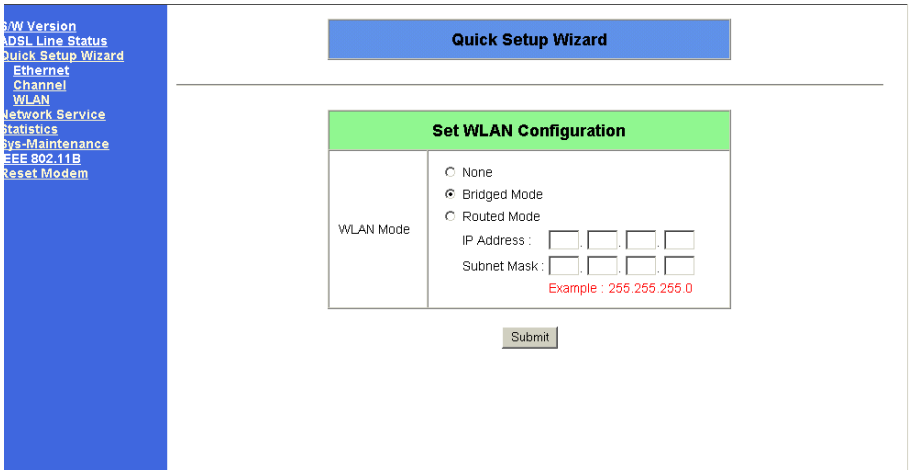


3.3 WLAN Bridging Mode

Imagine there are three networks connected at the router:

- The external WAN network (to your ISP).
- The internal 'wired' network (via the 4 LAN ports on the router).
- The internal wireless network (using 802.11b)

The Quick Setup Wizard/WLAN configuration allows you to control the way the 'wired' and wireless networks integrate.



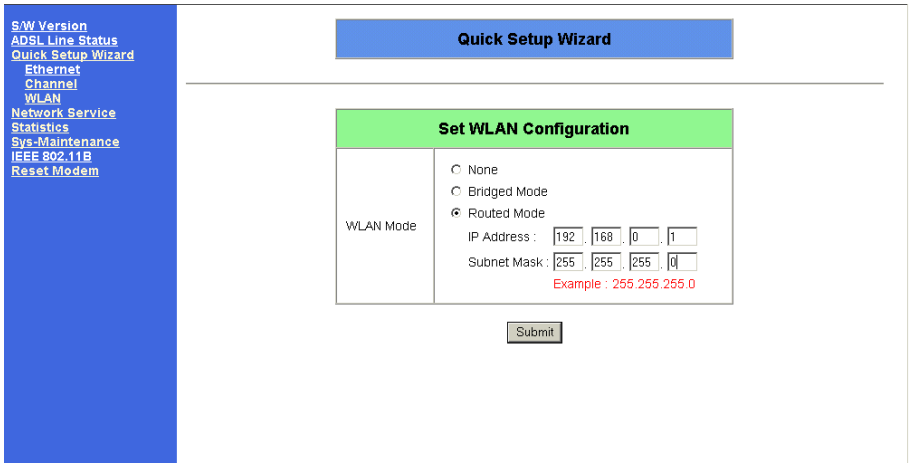
The three options are:

None – this means that clients on the 'wired' network can see the router but can't see any clients on the 'wireless' network and vice-a-versa (wireless clients can see the router but not the wired clients).

Bridged Mode – This is the default mode and in this mode the wireless network forms an extension of the wired network forming a whole single network with the router hanging off it. In this setup you must ensure that the IP addresses for the

wireless clients match and don't clash with the wired clients. e.g. if the router is 192.168.1.1 (as set in Quick Setup/Ethernet) and you have two wired clients with addresses 192.168.1.2 and 192.168.1.3 then typical addresses for wireless clients would be 192.168.1.4 and 192.168.1.5. **BUT** you could not use the addresses 192.168.0.2 and 192.168.0.3. This wouldn't work and the wireless clients wouldn't be able to see the router or the wired clients.

Routed Mode – in this mode the wireless segment forms a discrete, separate network from the wired section but IP routeing between the two networks is allowed. Since the wireless network is a separate network then the wireless point at the router needs to be given an IP address. e.g. the wired segment might have 192.168.1.1 for the router end and then clients could be 192.168.1.2 or 192.168.1.3 etc.. Then you could tell the WLAN Configuration that the IP address of the wireless point at the router is 192.168.0.1 (with mask 255.255.255.0) and then use client addresses of 192.168.0.2 or 192.168.0.3 etc...



Remember to select Submit after doing any changes and then Reset the modem before using.

If using Routed Mode and you want to use DHCP then remember to goto Network Service/DHCP Server and configure the WLAN server.