Ad Hoc connection Laptop to Serial Server Device

This application note is specifically created for Dell Laptop computers but it is similar to all Laptop devices running XP with SP2.

Setting up a Serial Server device for Ad Hoc (Peer-to-Peer) to a Wireless Laptop/Notebook PC.

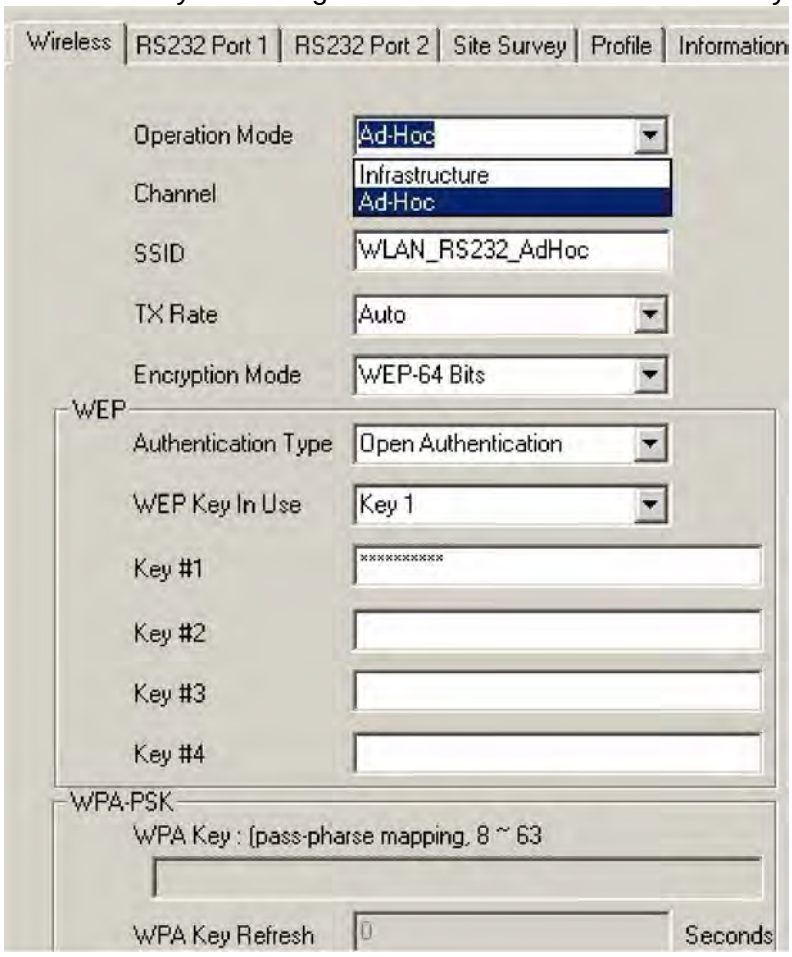
1. In the **Set Up Utility** of the Serial Server device, select the **Wireless** tab.
2. Select **Ad Hoc** as the **Operation Mode**.

Note: this will cause the Serial Server to send out beacons to broadcast the SSID network name you chose. Any laptop that does a survey of available wireless networks to link to should be able to read this beacon and display the Network Name in order for you to link to it.

3. Enter the **SSID** network name you chose to be broadcast. For this illustration, the name WLAN_RS232_AdHoc is entered.
4. **Encryption Mode:** If you have **XP OS with SP2** installed on your laptop, you will need to enable a security encryption mode and enter a key value. The simplest is to use the WEP-64 key. XP-SP2 will force you to use a security encryption key. If you have WX-SP2 you do not have a choice, you must enter an encryption key.

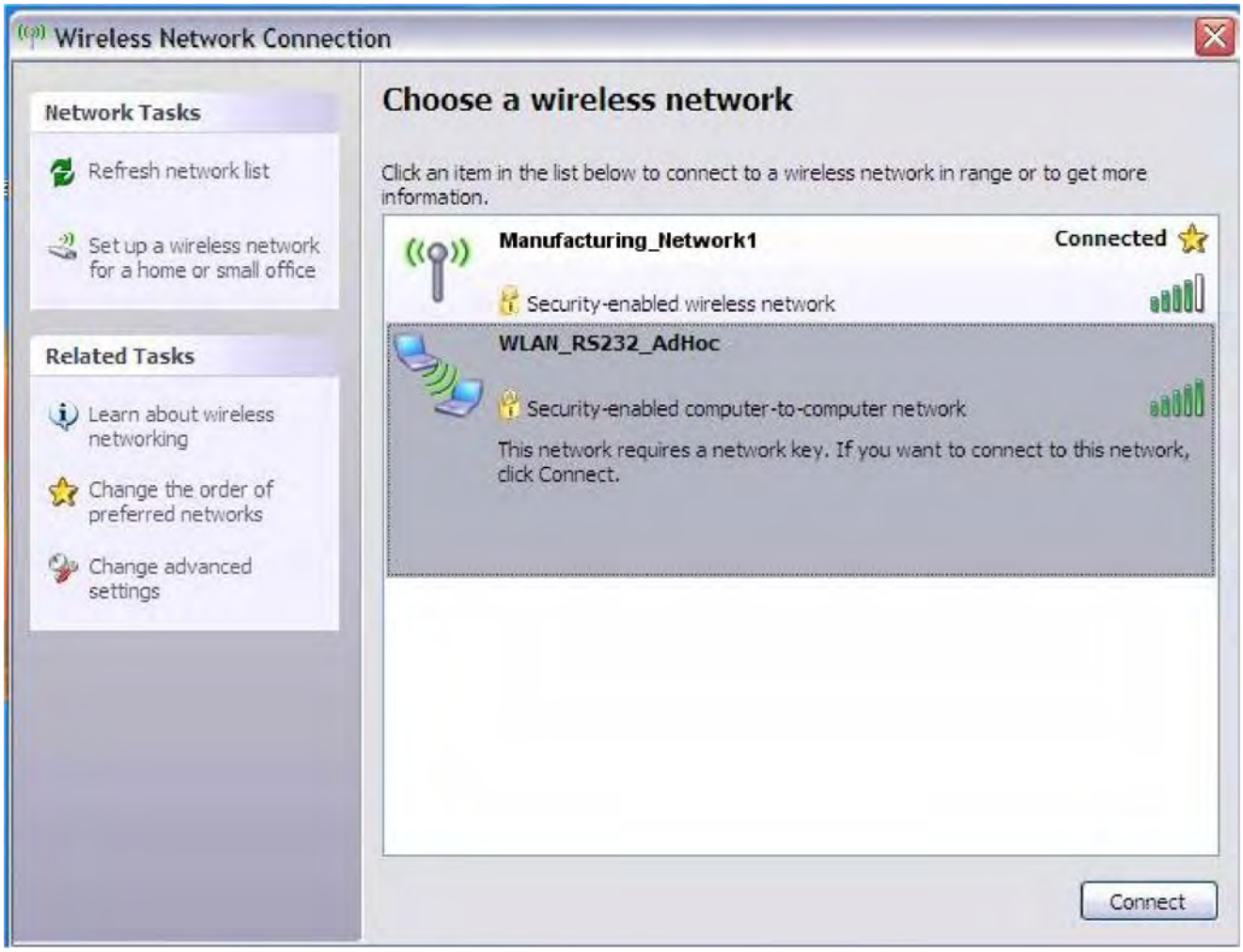
NOTE: The WEP network key must be either **exactly 10 characters long (WEP-64)** or exactly 26 characters long (WEP-128) **using the hexadecimal numbers 0-9 and the letters a-f (A-F) (letters can be uppercase or lowercase)**.

5. Save your settings with the **Save** button on the Utility.



Setting up a Laptop/Notebook PC for Ad Hoc (Peer-to-Peer) to a Wireless Serial Server device.

1 On your Laptop or Notebook computer, click on the **Wireless Networks** icon in the system tray in the lower right of the XP laptop screen.
2 Click on **View Available Networks**.
3. Find the Serial Server network name you created during set up of the Serial Device. Notice that since the Serial Server was set to **Ad Hoc mode**, it sends out a beacon with its network name (in this case "WLAN_RS232_AdHoc") the network name will appear in a list of available wireless networks when you "Refresh network list".
4 Tap the **Connect** button at the lower right to link the laptop to the selected Serial Server network. Follow the prompts to complete Ad Hoc connection to the Serial Server.
5 If you do not see the Serial Server network name you assigned to the Serial Server, you may need to proceed on to the section immediately following this entitled **Creating an Ad Hoc Network from a Laptop/Notebook PC to another Peer Device**. Then return to this section to complete connection to the Serial Server device Ad Hoc network.



Creating an Ad Hoc Network from a Laptop/Notebook PC to another Peer Device.

If you can not simply link to the Ad Hoc network name when searching for available wireless networks, it may be because your laptop is not set up to allow connection to Ad Hoc networks. So proceed as follows.

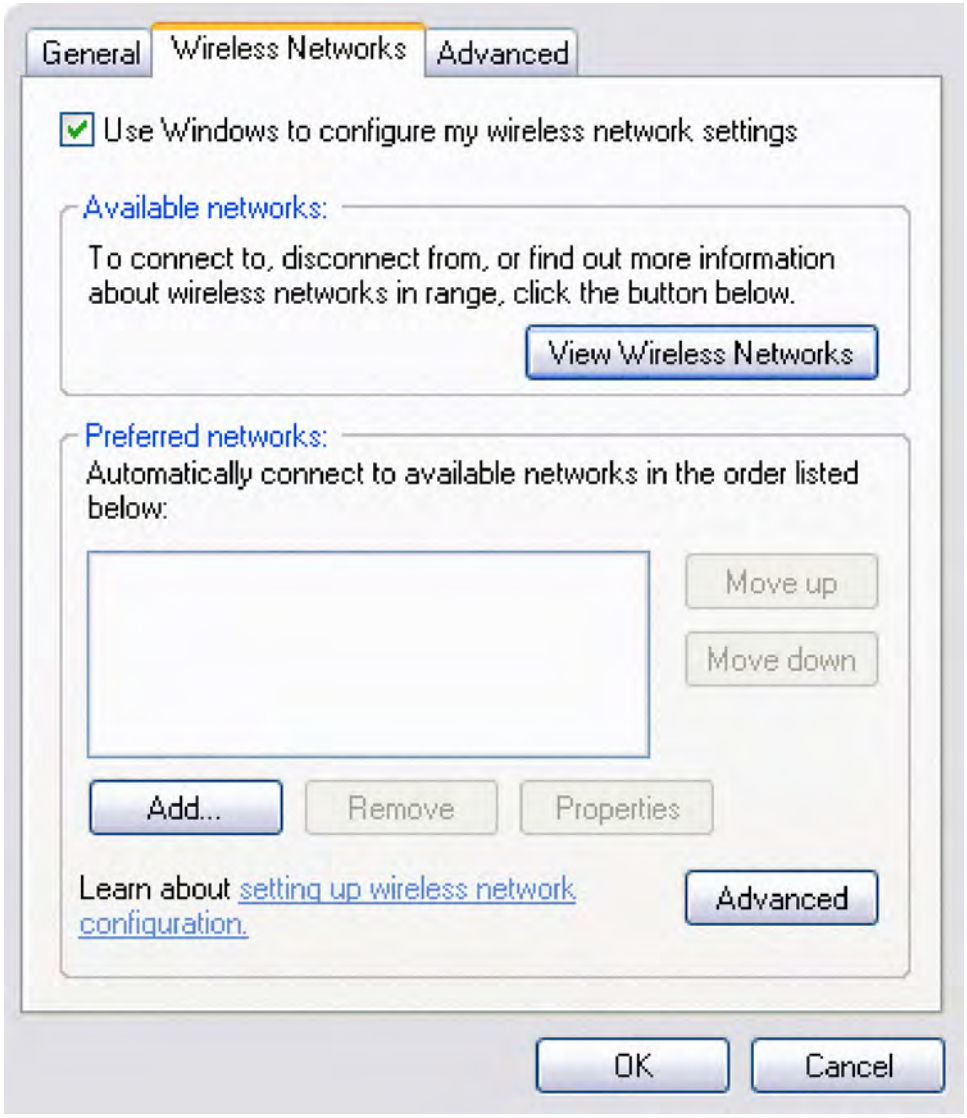
On the Laptop/Notebook PC

1 Open **Network Connections** in Control Panel.

2. Right-click **Wireless Network Connection**, and then click **Properties**.

3 On the **Wireless Networks** tab, verify that the **Use Windows to configure my wireless network settings** check box is selected. If it is not, click to select the check box.

4 Click **Add**.



5 Type the network name in the **Network name (SSID)** box.

6 Select the **This is a computer-to-computer (ad hoc) network; wireless access points are not used** check box.

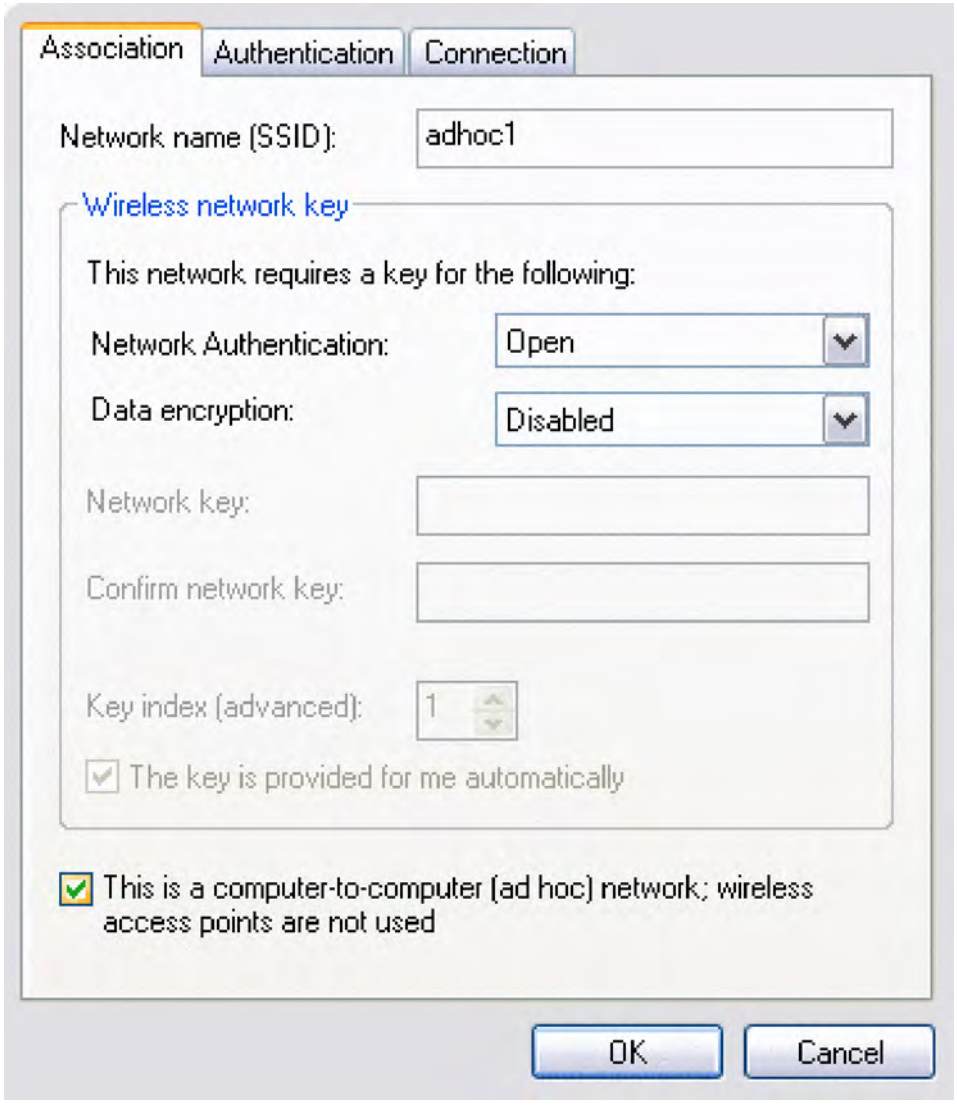
7 Click **Open** in the **Network Authentication** list.

8 To create an ad hoc network with no security settings, click **Disabled** in the **Data encryption** list.
–or–

To create an ad hoc network that has WEP encryption, clear the **The key is provided for me automatically** check box, click WEP in the Data encryption list, and then type the network key in the Network key box and again in the Confirm network key box.

NOTE: The network key must be either **exactly 10 characters long (WEP-64)** or exactly 26 characters long (WEP-128) **using the hexadecimal numbers 0-9 and the letters a-f (A-F) (letters can be uppercase or lowercase)**.

9 Click OK.

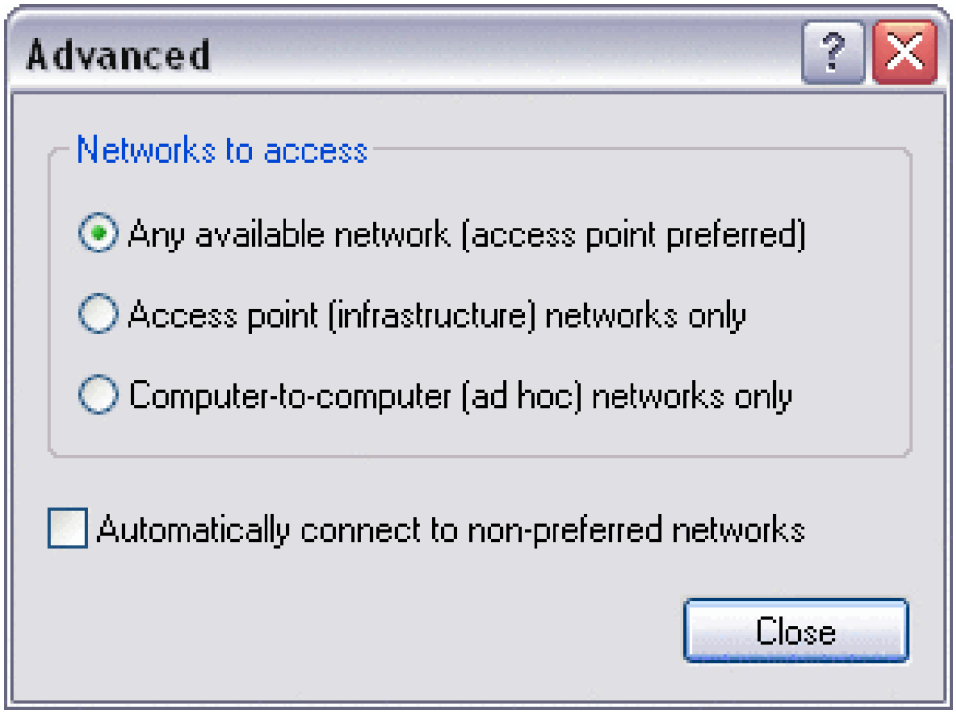


10 On the **Wireless Networks** tab, click **OK**.

Choosing Which Types of Networks to Access

1. Open **Network Connections** in Control Panel.
2. Right-click **Wireless Network Connection**, and then click **Properties**.
3. On the **Wireless Networks** tab, click **Advanced**.
4. Under **Networks to access**, click the option you prefer. For Ad Hoc network you must either choose either:
Any available network (access point preferred) or
Computer-to-computer (ad hoc) network only.

and then click **Close**.



5 On the Wireless Networks tab, click OK.

References:
http://support.dell.com/support/edocs/network/p70008/EN/xpbasic.htm#toc_15