Setting Up WiFile with Bluetooth



Hands High Software, Inc.

Introduction

This manual will show you some ways to setup a Palm OS device that has Bluetooth to connect to a network with WiFile, and also connect to the Internet. The bad news is that setting up a handheld device in this way can be time consuming. There are a lot of steps. The good news is that once it is set up, it should be very easy to use, so it is worth the initial effort.

Hardware Requirements

First of all, you will need a Palm OS Bluetooth device. There are a few on the market today that have BlueTooth built-in, like the Palm Tungsten devices, the Sony UX-50, and the TapWave Zodiac. There are also plug-in cards available that will add Bluetooth capabilities to some devices that do not have BlueTooth.

The next thing you need is a Bluetooth device to connect with. There are two possibilities. You can either connect to a Bluetooth enabled computer that is also connected to the network by a wire or WiFi (802.11), or connect to a Bluetooth access point.

An access point is similar to a WiFi router. It connects by an Ethernet wire to your network and allows any Bluetooth device in range to also connect to the network wirelessly through itself.

To Bluetooth enable a computer, you can either purchase a Bluetooth PCMCIA card, that plugs into a laptop computer, or a Bluetooth “dongle” that plugs into the USB port of a computer.

Of all these options, generally the least expensive option is a Bluetooth USB dongle. The easiest to set up is the access point, since it automatically gives you a network connection.

Windows XP Service Pack 2 Notice

Windows XP Service Pack 2 was supposed to make Bluetooth setup easier. Unfortunately, it actually made it harder for people who want to share an Internet connection with a Bluetooth device. The built-in Bluetooth support does NOT support shared network connections. In addition, if you already have a shared network connection, installing Service Pack 2 will cause it to stop working. To fix this problem, you will need to re-install your Bluetooth Windows software after installing Windows XP Serivce Pack 2,

and then perform some other tasks. See the Windows Setup chapter for more detailed information on how to set up a network connection using Service Pack 2. Do this step first, before going to the Bluetooth Pairing chapter.

Bluetooth Pairing and Handheld Setup

Bluetooth is a communications protocol, and a radio that is designed to communicate using low powered devices at close range. It essentially is a way to replace a wire that connects two devices together allowing them to communicate with each other. Palm computers have traditionally used Bluetooth to allow wireless synchronization with a desktop computer, and to allow wireless dialing of Bluetooth enabled phones.

Usually, Bluetooth range is around 30 feet, but the range depends a great deal on where you are connecting and what you are connecting to.

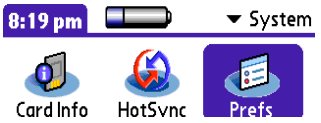
The first part in setting up a Bluetooth connection is to “pair” the 2 devices. Pairing involves a series of steps that make sure that the communication between the two devices is secure and that you are not communicating with someone else’s computer by accident.

On Desktop Computer

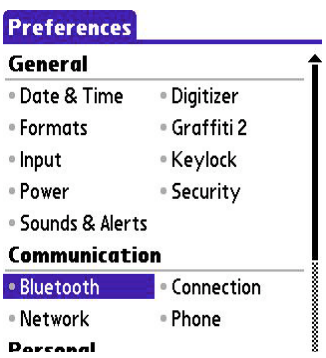
- Install your Bluetooth hardware on your desktop computer

On Handheld:

- Tap the Prefs application and choose Bluetooth



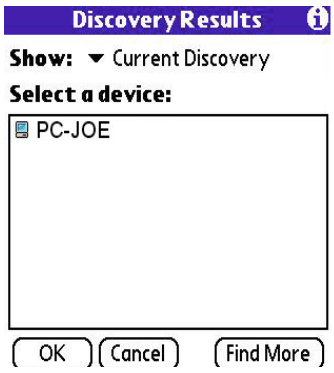
- Select “Bluetooth” in the “Communication” Section.



- Tap on the drop down menu next to the “Bluetooth:” field and select “On”.
- Tap on the “Done” button.
- Select the “Connection” button in the “Communication:” section.
- Tap in the “New…” button
- Enter a recognizable name in the “Name:” field. The default name is “Custom” the name we are using in the example is “My Network”
- Tap on the “Connect To:” dropdown list and select “Local Network”
- Tap on the “Via:” dropdown list and select “Bluetooth”.
- Tap on “Tap to Find” in the “Device:” field.



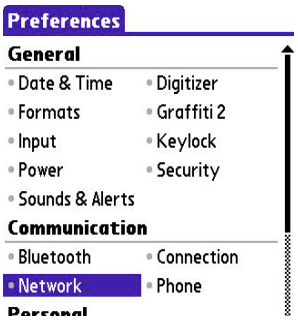
- Select your Bluetooth enabled PC and tap the “OK” button. If your Palm device can not find your Bluetooth enabled PC, make sure the PC is running and the Bluetooth hardware and software are properly installed.



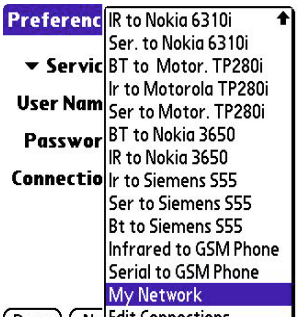
- You will be asked if you wish to add the device to your “trusted device list”. It is recommended that you do since it will allow you to automatically connect to your PC after initially entering the passkey.
- If you add your device to the trusted list, a “Bluetooth

Security" window will appear. You can then enter your passkey. You should be close to your PC when entering your passkey, because you will need to enter the same passkey there in order for the devices to pair successfully.

- Tap on "Network" in the "Communication" area.



- Tap the "New" button in the "Network" preferences window.
- In the "Service:" field, enter a name to describe the type of network, in the example, the service name is "Bluetooth".
- In the "Connection:" dropdown menu, select the "My Network" Connection that was created earlier.



- Click the "Done" button

Windows Setup

Windows Service Pack 2 Information

Windows XP Service Pack 2 was supposed to make Bluetooth setup easier. Unfortunately, it actually made it harder for people who want to share an Internet connection with a Bluetooth device. The built-in Bluetooth support does NOT support shared network connections. In addition, if you already have a shared network connection, installing Service Pack 2 will cause it to stop working.

If you are using Windows XP Service Pack 2, follow the instructions below. Otherwise, skip down to the section titled "Enabling Network Access"

Reinstalling Bluetooth Software

After installing Service Pack 2, you must reinstall your Bluetooth software. This should be located on a CD-ROM that came with your Bluetooth dongle or PC Card. Do that first.

Overriding the Microsoft Driver

Next, you must override the built-in Microsoft driver, telling Windows XP to use the new driver for your Bluetooth hardware. Do the following:

1) Open your Control Panel.
2) Double-click the System panel.
3) Click the Hardware tab at the top
4) Click the Device Manager button
5) Expand the Bluetooth Radios item. If you see the words "Bluetooth Devices" instead, your computer is already setup to override the driver, so you can skip to the next section titled "Starting the Radio and Enabling Services".



6) Right click on the item titled "Generic Bluetooth Radio".
7) Click the Update Driver option.

8) Select “No, Not this time.” and click Next.

9) Select the “Install from a list or specific location.” Option and click Next.

10) Select the “Don’t search. I will choose the driver to install” option and click Next.

11) When the next screen appears, select the name of the driver you want to use. If you receive an error that says something about digital signing, click “Continue Anyway”.

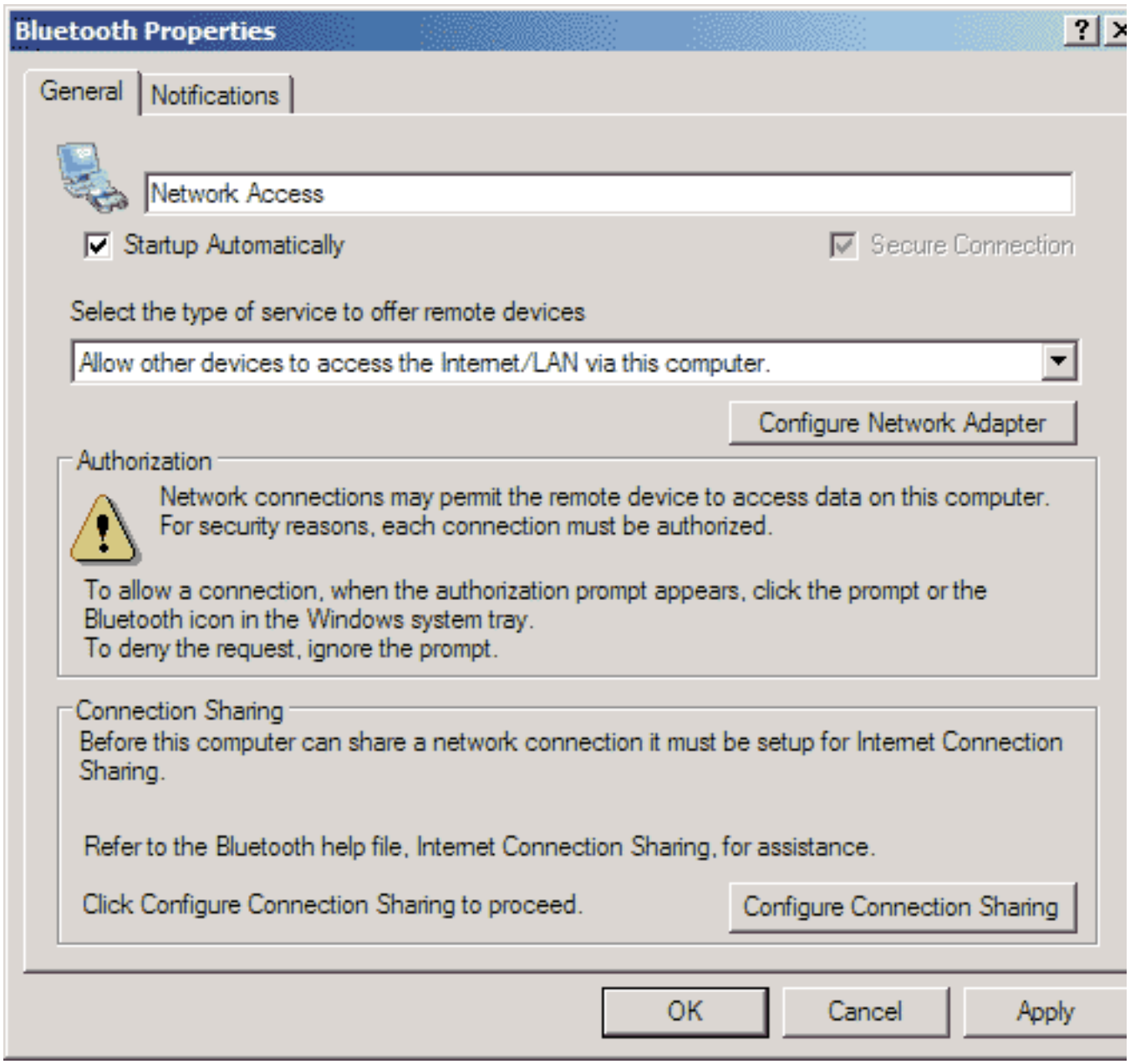
12) If everything has proceeded well, you will now see the words “Bluetooth Devices” instead of “Bluetooth Radios”. Click OK to close everything.

Starting the Radio and Enabling Services

At this point, you will see a small Bluetooth symbol in the lower right corner of your screen. Right click on it and choose “Start Bluetooth Device”. If you see two Bluetooth symbols, choose the darker one. The lighter one is for the built-in Bluetooth driver, and you can right click on that one and remove it if you want.

At this point, you may be asked to configure your Bluetooth device. Different drivers do this differently, but however yours works, you will want to make sure that your computer is discoverable, (Under the Accessibility settings), and that you only turn on the Network Access service on your computer (Local Services settings). If you want to set up other services later, that is fine, but for now, only work with the Network Access service to get it working correctly.

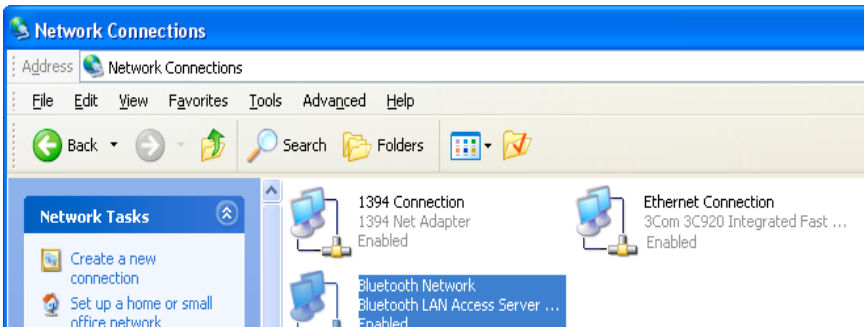
Once you turn on the Network Access service, right click on the Bluetooth icon in the lower right corner of the screen, and choose “Explore My Bluetooth Places”. Then click “View My Bluetooth Services”. Right click on “My Network Access”, and choose “Properties”. You will see a drop down title “Select the type of service to offer remote devices”. Choose “Allow other devices to access the Internet/LAN via this computer.” Note that this is NOT the default setting.



Enabling Network Access

If you are connecting to a computer with a Bluetooth USB dongle or USB plug-in card, you will need to enable “Network Access” on your Windows computer. Configuration directions on how to enable “Network Access” are usually included in the manual of your Bluetooth hardware. Above is a description of of how to do this in Windows XP.

When you enable “Network Access” for your Bluetooth dongle, a network icon will appear in “Network Connections” folder in Windows 2000 and XP systems.



If you intend to use WiFile only with this computer or if it is not connected to a network, you will need to assign an IP address to the Bluetooth network connection.

If you intend to use WiFile to connect to other computers on the local network, or to connect to other computers on the Internet, you will need to "share" your Internet connection. Sharing your Internet connection allows other devices to use your computer's Internet connection as if they where directly connected to the Internet.

The network connection can be an Ethernet, a Wireless or a Dialup connection.

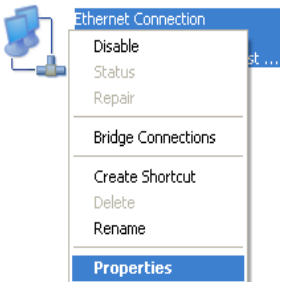
When the Internet connection is shared, an IP address will automatically be given to the Bluetooth network connection.

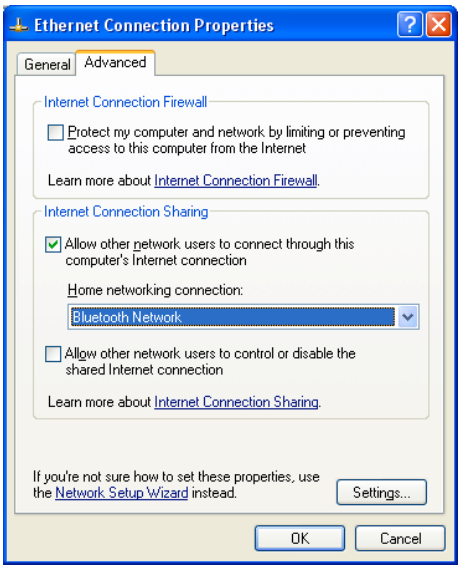
Sharing your Internet Connection

The next step is to share your internet connection. This step turns your computer into a PPP router. This will allow your Palm OS device to connect to your computer, and then your computer will route Internet requests to its own Internet connection.

Windows XP/2000

Within "Network Connections", right-click on your Internet connection and select "Properties…", again, this connection will be your Ethernet, wireless or dialup connection, not your Bluetooth connection. Click on the "Advanced" Tab and check "Allow other network users to connect through this computer's Internet connection" On Windows 2000, the tab is called "Sharing".





If you have more than one network connection, you will need to select the Bluetooth network connection in the drop down menu under “Home networking connection:”

If you do not see any choice for “Home Networking Connection”, you probably did not install the Bluetooth drivers correctly. Reinstall your Bluetooth drivers and try again.

If you see “Home Networking Connection”, but do not see “Bluetooth Network” in the selection, and have no way of choosing it,

Click the “OK” button.

Windows ME/98 SE

Click the “Start” button, select “Settings” and click on “Control Panel”.

Double-click “Add/Remove programs”.

Click on the “Windows Setup” tab, then double-click on “Internet Tools”.

Click to select the “Internet Connection Sharing” check box, and click “OK” button.

Click “OK” again to close the “Add/Remove Programs” window, and then follow the instructions on the screen to run the Internet Connection Sharing wizard.



Make sure you choose the network connection that allows you to connect to the Internet or your Intranet. Choosing the wrong connection will result in you having to uninstall “Internet Connection Sharing” and reinstall again

Testing the Connection

If all your setup efforts have gone well, you should now be able to connect to the Internet with your Palm OS device.

The first step is to test that you have a network connection. Go to your Prefs application on your Palm device and choose Network. The Service name should correspond to the Bluetooth connection that you set up in the first chapter.

Tap the Connect button. You should see some messages about it connecting. At this point, you might see a message on your computer in the lower right corner of the screen asking you to verify the connection. Follow the directions to allow the connection to continue. If everything is working, the Connect button should turn into a Disconnect button.

Then, open a Web browser on your Palm device and attempt to browse the Internet. Again, if all goes well, you should be able to browse the Internet. Once you are at this point, you can also use WiFile to open files on your computer.