

mbizSolutions.com presents:

Getting the Most From Your Mobile Devices



The Ultimate Guide of Tips and Solutions

Version 1.0

FORWARD

During consulting, I often encounter people who use more than one type of mobile computing device (i.e. a Pocket PC, Notebook PC and mobile phone), and I'm frequently asked, "Can I synchronize data across my devices?" or "How can I print wirelessly from both my PDA and laptop computer?" and many more questions. That is why I wrote this e-book, *Getting the Most From Your Mobile Devices*, for professionals like you who want to get the most out of your mobile devices, whether you own a laptop, Pocket PC, Notebook PC, Smartphone PC and other types of handheld computing devices.

This guide was written for the average user/professional using mobile devices, so a lot of things are explained in plain English. There is also a frequently asked questions chapter at the beginning of this e-book that you might want to look through briefly that will answer many of the most common questions related to mobile technologies, such as "What are the differences between Pocket PCs, Palm handhelds, Handheld PCs (HPCs), PDAs, etc.," "What is Wi-Fi?", "What are Hotspots?" and many more common questions and answers for the average user (non-techies!).

You will also notice that instead of writing for a specific platform, I cover the most commonly used mobile computing devices such as Pocket PCs, Pocket PC Phones, Smartphones, Palm Powered handhelds, Notebook PCs, Tablet PCs and even some solutions for BlackBerry and Symbian OS handhelds. Many readers have found this approach helpful because they often own devices made on different platforms.

You will learn:

- Various ways on how to secure your mobile device
- How to effectively get the most out of your battery power
- Printing wirelessly
- GPS navigation systems
- Sending and receiving faxes from your mobile device
- How to perform presentations from your mobile device
- How to use voice recognition on your mobile device
- Various ways of quickly inputting data (that you didn't know about!)
- Tips for using your mobile device while traveling & outdoors
- How to backup and recover data on your mobile device
- How to transfer data from one platform to another (i.e. Palm to Pocket PC)
- And much more.

Feel free to print this guide and read it at leisure. That's why I provided it in Adobe Acrobat format. Finally, don't forget to regularly visit mBiz Solutions (www.mbizsolutions.com) for an extensive list of horizontal and vertical market mobile technology solutions, news, articles, product reviews, help/discussion forums and more.

Sincerely,

Eriq Cook
mBiz Solutions – www.mbizsolutions.com

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FREQUENTLY ASKED QUESTIONS AND BASICS ABOUT MOBILE TECHNOLOGIES

Handhelds and Smartphones

What's the difference between PDAs, Handhelds, Pocket PCs, Windows CE devices, Handheld PCs and Palm Powered handhelds?

A very confusing matter for many, because many people miss-use the acronyms used to describe handheld computing devices. For example, some people use the term "Handheld PC" (which is *really* a Microsoft product like the Pocket PC) when referring to other types of PDAs. This should clear some things up:

- **PDAs (Portable Digital Assistant) and handhelds** are *general terms* used for any highly portable computing device, including Pocket PCs (such as the HP iPAQ), Handheld PCs and Palm Powered handhelds (such as the Palm V and Tungsten T3).
- **Pocket PCs** run Microsoft Windows Mobile Pocket PC Edition, and include Pocket Microsoft Outlook, Word, Excel, Notepad (which supports natural handwriting), Windows Media Player, Terminal Services (allowing you to remotely connect to a desktop or notebook PC running Windows 2000 or XP) and a slew of other applications. Pocket PCs are known for their multimedia capabilities, multitasking, better screens, faster processors, greater amounts of memory, and standard compatibility with Microsoft Office applications and Microsoft Exchange.
- **Windows CE** is commonly used as a general / platform term for any Microsoft OS-based handheld device, including Pocket PCs running Windows Mobile 2002/2003 and Handheld PCs running Windows CE 4/5. Technically, all Pocket PCs and Handheld PCs "came from" the Windows CE code platform, which is why sometimes people call a Pocket PC a "Windows CE-based" handheld.
- **Palm Powered handhelds** like the Palm V and Tungsten T3 run on--you guessed it--the Palm OS. Palm OS devices are typically less expensive than Pocket PCs, require fewer resources such as tons of memory and a speedy processor, and generally easier to learn.
- **Handheld PCs** look like miniature Notebook PC's, but run the Microsoft Windows CE OS. The Handheld PC is not a Notebook PC replacement; rather it extends the mobile computing options in the enterprise. Handheld PCs are hard to find nowadays, but are still offered through mobile solutions providers for various vertical and horizontal industry solutions.

What are the differences between PDA Phones, Smartphones, Pocket PC Phones and BlackBerry's?

- **PDA Phone** is a *general term* used to describe any PDA/phone device including Pocket PC Phones, Smartphones, BlackBerry devices and more.
- **Pocket PC Phones** resemble a standard Pocket PC, include all of the functionality of a Pocket PC and combine it with a feature-rich mobile phone. The [Samsung i700 Pocket PC Phone](#) and the Hitachi G1000 Pocket PC Phone are two examples.
- **Smartphones** more closely resemble mobile phones in appearance, but do not run traditional mobile phone software. There are two common Smartphone platforms: Windows Mobile-based

Smartphones and Palm OS Smartphones:

- **Windows Mobile-based Smartphones** like the [Samsung i600](#) and [Motorola MPx200](#) run Microsoft Windows Mobile Smartphone Edition, and include most of the same software as on the Pocket PC Phone Edition, but the graphic interface is slightly different, more compact and screen sizes are typically smaller.
- **Palm OS based Smartphones** like the [palmOne Treo 600](#) run on the Palm OS, include all of the functionality of a Palm OS based PDA with the addition of mobile phone functionality.
- **BlackBerry Wireless Handhelds** like the [RIM BlackBerry 7700](#) Series are like Smartphones but usually categorized in “other handhelds.” BlackBerry Wireless Handhelds are very popular, built for one-handed operation, run on the BlackBerry OS and feature built-in keyboards.

What does PIM stand for?

You may often hear of the term PIM device or PIM software. In mobile computing, PIM stands for Personal Information Manager. A PIM device is a basically a generic term used to describe any handheld computer that features an address book, calendar, task list and more. PIM software is also a generic term used to describe any basic software that manages contacts, calendar, task list and more.

What are Tablet PCs?

What are Tablet PCs?

Tablet PCs represent the next generation in mobile computing and are more advanced than notebook computers. Tablet PCs combine the touch screen and writing capabilities of a PDA with the power of a notebook PC into one device, with a suite of new generation pen enabled applications. Tablet PCs feature digital ink applications, which allow you to take notes using natural handwriting, markup of documents and handwriting recognition.

There are two forms of Tablet PCs; convertibles and slates. Slates do not have keyboards, but all Tablet PCs feature an onscreen keyboard or you can always add an external keyboard.

Slate Tablet PCs are popular among industries including healthcare, field service, financial services, real estate and much more because of the ease of use and convenience of not having to lug around a heavier laptop. Just write and tap on the screen.

Convertible Tablet PCs have keyboards, but allow you to convert it from a slate form to regular Notebook PC form by simply rotating and flipping the screen, giving you full functionality of a notebook PC with the added convenience of a touch screen.

More information about Tablet PCs can be found at www.microsoft.com/tabletpc.



Slate form



Convertible form

Cards

What are the differences between the various types of memory/expansion cards?

- **PC Cards** are credit-card sized devices that fit into a mobile device or desktop computer. There are several categories of PC cards, including Type I, II or III depending on their thickness. There are many types of PC Cards including modem cards, LAN cards, wireless LAN cards, GPS cards, Bluetooth cards, video conversion cards and much more.
- **MMC (MultiMediaCard)** cards are postage-stamp sized removal memory cards. MMC cards are similar to SD cards but lack a write-protection switch.
- **SD (Secure Digital)** cards are stamp-sized removable memory cards and feature a write-protection switch. Many PDAs and digital cameras come standard with SD card slots, and many newer desktop PC's come standard with them as well. The storage capacity of SD cards is greater than MMC cards, with SD cards reaching capacities of 1GB and more.
- **SDIO (Secure Digital Input/Output)** cards, a relatively new technology, extends the functionality of devices with SD card slots. A variety of SDIO cards are being developed, including Camera's, Wi-Fi cards, Bluetooth cards, GPS cards and even digital TV tuner cards. SDIO is compatible with SD, however your mobile device must have an SDIO compatible card slot to use SDIO cards.
- **CF (CompactFlash)** cards are matchbook-sized removable cards that function in a multitude of ways like PC Cards and SDIO cards. Many devices including PDAs, printers, digital cameras and more feature CF card slots. There are two types of CF cards; CF Type 1 and CF Type II. The only differences between the two are in their physical thickness.
- **Memory Sticks** are gum-stick sized removable memory cards that are proprietary to Sony. Most Sony-made devices including Sony VAIO desktop PC's, Notebook PC's, PDAs, digital cameras, video camcorders and more include memory-stick slots for exchange of data between Sony devices.

What is a SIM card?

A SIM (Subscriber Identification Module) card is a small plastic chip, almost the size a stamp, used in GSM-based mobile phones and PDA phones. It contains a subscriber's details, security information, address book/contact data and identifies the caller to the network service provider.

Memory

What's the difference between RAM and ROM?

- **RAM (Random Access Memory)** is "volatile" memory, which remains active as long as power is supplied. On PDAs for example, the operating system, programs, program settings and other current functions are stored in RAM. When a PDA hasn't been charged in a significant amount of time (leading to complete power loss), data stored in RAM is lost.
- **ROM (Read Only Memory)** is permanent memory which is retained even when a device loses complete power. Data in ROM generally cannot be modified or erased unless manually modified. In PDAs, many operating system functions are stored in ROM enabling them to boot up quickly.

Screen/Display Technologies

What are the differences between LCD and TFT displays?

- **LCD** (Liquid Crystal Display) is the technology used for flat-panel displays on computers, PDAs and other mobile devices.
- **TFT** (Thin Film Transistor) is an LCD panel that uses one transistor for each pixel. This allows TFT displays to offer a bright color display that responds quickly and is energy efficient. There are also backlit Transflective TFT displays that offer maximum visibility in low light.

Wireless Networking Technologies

What is IrDA?

IrDA is short for Infrared Data Association, a group of device manufacturers that developed a standard for transmitting data via infrared light waves. Many computers and other devices (including printers) come with IrDA ports, enabling you to transfer data from one device to another without the use of cables. IrDA comes standard on many mobile computing devices including Notebook PC's, Tablet PCs, PDAs and Smartphones.

IrDA is limited to just a few feet, and there must be a clear line of sight between the devices. The speed of IrDA is roughly the same as traditional parallel ports, which is between 150 kbps (Bi-directional) to 2.5 Mbps (ECP).

What is Bluetooth?

Bluetooth is a standard for providing short-range wireless connections between computers and other devices including printers, wireless headsets, GPS systems and more. Some mobile computing devices may have Bluetooth built-in, where others require a separate Bluetooth adaptor.

What is GPS?

A GPS (Global Positioning System) is a satellite navigation system that works by continually transmitting high-frequency radio signals containing the time and location of the satellite in relation to earth. On average, eight satellites are always within sight of wherever you are on Earth. The more satellites your GPS receiver can contact, the more accurate your readings will be.

What is a WLAN?

WLAN stands for Wireless Local Area Network. This connects wireless devices together using radio wave transmissions.

What is a hotspot?

A hotspot, also called Wi-Fi or Wireless hotspot, is simply a term for a public wireless Internet connection. Depending on where the Wi-Fi hotspot is, you may or may not have to pay for access. Over the past 18 months, some 1,500 major restaurants (such as Schlotzsky's Deli), coffee shops, hotels (such as Best Western), and airports have begun offering free Wi-Fi service. But there are still many places that do charge for Wi-Fi access (McDonalds, Starbucks Coffee for example).

Pay Wi-Fi service providers typically offer monthly or daily access plans. To learn more about Wi-Fi access plans, you can visit the T-Mobile HotSpot web site (http://selfcare.hotspot.t-mobile.com/services_plans.do), Boingo Wireless (www.boingo.com/whatdoesitcost.html) or Wayport (www.wayport.net/chart).

What kind of security do hotspots offer?

Hotspots do not normally have any security as they are public networks. You must make sure that you have a firewall installed on your mobile computer or use a VPN when connecting to a network. You should also make sure that you have file sharing disabled, otherwise someone else can access your data.

What is Wi-Fi?

Wi-Fi (Wireless Fidelity) is a certification program established by the Wi-Fi Alliance (www.wirelessethernet.org) to ensure the interoperability of wireless devices.

The term Wi-Fi is also used when referring to any type of 802.11 technologies.

What are the differences between 802.11 technologies?

- **802.11b** started the wireless networking boom, provides 11Mbps transmission speed and operates on the 2.4 GHz radio band. But any products that also use this band such as cordless phones can interfere with an 802.11b signal. Signal distance can reach between 100-150 feet depending on construction, building materials and room layout.
- **802.11g** is almost 5 times faster than 802.11b with a speed of 54 Mbps and quickly becoming the standard (if it isn't already). And since 802.11g uses the same 2.4 GHz radio band, it is also compatible with 802.11b.
- **802.11a** operates at the same speed as 802.11g (54Mbps), but uses a 5 GHz radio band, therefore it is not compatible with 802.11b or g. 802.11a also suffers from shorter range and more prone to interference by walls or doors. Typically 802.11a is used to avoid interference with products that operate on the 2.4 MHz radio band. Unfortunately, there's not much support for 802.11a as even most computer manufacturers only build 802.11b/g support into their products and it's relatively more expensive than b/g technologies.

Are there any new 802.11 technologies coming out soon?

802.11i is the next up and coming standard in wireless networking but is not yet finalized. 802.11i features WPA2 security. The components of 802.11i are essentially WPA, plus AES (Advanced Encryption Standard). 802.11i products will be backward compatible with WPA products assuming they have the means to support AES. Look for 802.11i products early to mid 2005.

Are there any radio band health concerns with 802.11 technologies?

No. The radio bands from wireless networking hardware including routers and mobile computing devices are very minute compared to a cellular phone or microwave.

What is 2G, 2.5G and 3G?

- **2G** is a term used for second generation digital cellular network protocols including GSM, CDMA, TDMA, iDEN and PDC. 2G networks support high bit rate voice and limited data communications. They offer auxiliary services such as data, fax and SMS. Most 2G protocols offer different levels of encryption.
- **2.5G** protocols extend 2G systems to provide additional features such as packet-switched connections (GPRS) and enhanced data rates (EDGE, HSCSD).
- **3G** is the term used to refer to the next generation of protocols that support much faster speeds than 2 / 2.5G networks, measured in Mbps, and intended for applications other than voice. 3G

technologies typically are packet-switched and use CDMA to communicate. 3G networks will support bandwidth-hungry applications such as high speed Internet access and video conferencing applications from your mobile device. The 3G standard has been agreed for Europe, Japan, China and the rest of Asia is UMTS (Universal Mobile Telecommunication System).

What is a SSID?

SSID (Server Set ID) is a configurable network identification name for a wireless network. Think of an SSID like a wired network's Workgroup or Domain name, where a workstation needs the correct SSID name to connect to the network.

What's the difference between ad-hoc mode and infrastructure mode?

- **Ad-hoc mode** is basically a peer to peer networking mode where a wireless device can communicate directly with other wireless devices without the need for an access point or router.
- **Infrastructure mode** requires a wireless access point or router for wireless devices to gain access to the wireless network. As a result, whenever there's a need to share a broadband Internet connection such as DSL or cable, Infrastructure mode must be used.

Wireless Networking Hardware

What are the differences between wireless access points, routers, dual band routers, and gateways?

- **Wireless Access Points** act as a bridge between an existing wired network and a wireless network. The access point converts data packets from a wired Ethernet LAN into radio signals to be used on the wireless network and vice versa. Typically, wireless access points are used in mid-size offices to larger hotspot Wireless LANs, where many APs are required to cover bigger areas. Access Points do not provide firewall or Internet connection sharing.
- **Wireless Routers** include the functionality of a wireless access point *and* an Ethernet router. Typically, wireless routers are used in small office/home office environments where all computers can be supported by one wireless router. Most wireless routers include a 4-port Ethernet switch so you can physically connect computers or additional hubs to the network.
- **Dual Band Wireless Routers** include the functionality of two wireless routers that operate on different radio frequencies. For example, the Linksys A+B Broadband Router operates on the 2.4 GHz radio band *and* the 5 GHz radio band, making it compatible with both 802.11a and b networks.
- **Wireless Gateways** include the functionality of a wireless router and a built-in broadband cable, DSL or ISDN modem. Typically, you would use a wireless gateway in place of having a wireless router *AND* a separate broadband modem.

What is a wireless extender/repeater?

Most wireless access points can reach up to 300 feet, but if there are obstacles in the way, such as walls made of concrete or metal, the wireless signal may not reach that far. Wireless extenders (also called wireless repeaters) extend the range of an existing Wireless Network without adding more access points.

A wireless extender/repeater simply regenerates a network signal in order to extend the range of the existing network. A wireless repeater does not physically connect to any part of the network by wire.

Instead it receives 802.11 radio signals from a wireless access point, end user device or another repeater and retransmits the data. This extends the range of your wireless network, allowing coverage in areas that are difficult to reach.

Wireless Security

What is a Firewall?

A firewall is used to prevent unauthorized Internet users from accessing private networks connected to the Internet. Firewalls can be implemented in both hardware and software, or a combination of both. A firewall is considered a first line of defense in protecting private networks.

What are the differences WEP and WPA?

WEP and WPA are security protocols for wireless LANs defined in the 802.11b standard.

- WEP (Wireless Equivalent Protocol) provides security by encrypting data over radio waves to while the data is being transmitted from one point to another. WEP was fundamentally flawed, and eventually cracked by scientist and hackers.
- WPA (Wi-Fi Protected Access) is the new security standard adopted by the Wi-Fi alliance and fixes the flaws of WEP. WPA provides much stronger security than WEP, addressing all of the weaknesses and allowing compatibility and upgrades with older equipment.

POWER MANAGEMENT

General Power Tips

Turn off Wi-Fi and Bluetooth When Not In Use

Wi-Fi and Bluetooth (whether built-in or provided by add-on accessories) is great to have, but they drain considerable power from mobile devices even when not in use. Turn off your Wi-Fi and Bluetooth antennas until you specifically need to use them. Keep in mind that every type of device has a different way of turning the antennas off, but the methods are usually outlined in the quick start guides. Some devices have a switch on the case itself; utilize a keyboard shortcut; or require you to turn off the antennas via a control panel applet or by simply right-clicking on the Wireless icon in the Windows system tray and choosing disable.

Unplug Unused Peripherals

Memory cards are ok, but if you have other peripherals connected to your mobile device including PC Cards, USB devices and other peripherals, your battery power will deplete quicker even if the peripherals aren't in use. So make sure to disconnect/unplug them from your mobile device to save battery power.

Completely Drain NiMH or NiCad Batteries for Longer Life

If your mobile device uses NiMH or NiCad batteries, draining the batteries completely before recharging once in awhile actually *improves* battery life.

Always keep an extra battery

Keep an extra battery handy whenever you're on the go or away from an AC power source, especially if you use a PDA/Phone device.

Power Tips for Notebooks and Tablet PCs

Adjust the Power Options Properties

One of the first and most important things to do to get the most power out of your notebook is to adjust the Power Options Properties in the Windows Control Panel. You access it by going to Control Panel / Power Options. The first tab, Power Schemes, allows you to adjust what hardware your notebook turns off automatically when not used for 5 or more minutes to save power.

Windows includes pre-defined power schemes to choose from to get the most power out of your notebook. You can even adjust the power schemes to your fitting accordingly. The Portable/Laptop scheme is adequate for general use, but if you want to squeeze the most juice out of your battery, choose Max Battery.

Note that the Turn off hard disks option does NOT turn off your computer. It simply stops the hard disk from spinning if no data is being opened or saved after a specified amount of minutes, thus saving a little more power. The Turn off monitor option just turns the monitor off, and can be turned back on by simply moving your finger over the touch pad or pressing a key.

Understanding the Difference between Standby and Hibernation

It's important to understand the difference between standby and hibernation in Windows XP on your notebook or Tablet PC:

- In **Standby**, your notebook is in a reduced power mode. Though it might appear to be turned off, Standby just turns off the hard disk, monitor and other components, but it still uses power, albeit a low amount. Pressing a key or moving your finger over the touch pad will turn everything back on in a few seconds. This is useful when you're not using the notebook for a short amount of time.
- In **Hibernation**, your notebook turns completely off, but saves the current system state to the hard disk, so when you turn your notebook back on, you will resume to the last screen where you left off. Note that Hibernation takes an average of around a minute to resume compared to standby, but is useful when you want to turn the laptop completely off without losing where you left off. It is also important to know that Hibernation requires a few hundred megabytes of hard disk space to save your last system state, but this isn't usually an issue as most notebooks made after 2001 have *plenty* of hard disk space.

Adjust the Brightness of your Notebook/Tablet PC Screen

Lowering the brightness of your screen will increase battery life by up to 25%. If your notebook/Tablet PC doesn't have a brightness adjustment utility (usually found in the control panel *if* available), you can manually adjust the brightness via a keyboard shortcut (all notebooks/Tablet PCs have this feature, however most manufacturers use different keyboard shortcuts for doing this so consult the users manual or FAQ guide for your device).

Close Unused Software

If you're running on batteries, temporarily disable/close any unused programs running in the background that uses your notebook/Tablet PCs hardware including Internet and network applications (Wi-Fi antenna utilities, IM clients, etc), even anti-virus software that scans your computer frequently (*only* if you're not connected to a network).

Choose RF Devices over Bluetooth If Possible

When it comes to wireless accessories such as keyboards and mice, older RF technology-based devices use less power and are even more reliable than Bluetooth accessories.

Only Play Audio CD's and DVD's when connected to a power outlet

Playing audio CD's and DVD's consumes a lot of power when running on batteries. And playing them directly from your PC's hard disk (instead of from disc) uses the same amount of power as well. So if you want to keep your notebook/Tablet PC juiced up for more than a couple of hours, make sure to connected to a power outlet before playing CDs.

I'm at the airport, what if I can't find a power outlet?

Baggage claim terminals usually have more power outlets than other areas of an airport. Also look for telephone stations with data ports as there will usually be power outlets there as well. And if all else fails, ask an airport worker.

Power Tips for Handhelds

Turn off Automatic Infrared (Beam) Receive

Another tip that will save some power on your handheld is to turn off automatic beam receive. This drains the battery because your handheld is always looking for other devices to exchange data with.

To disable the automatic beam receive option on Windows Mobile for Pocket PC devices, go to the Start menu, Settings, Connections tab, and then tap on the Beam option. Here you can deselect the option

labeled “Receive all incoming beams and select discoverable mode” to save considerable power on your Windows Mobile device.

For devices running Palm OS 4 or greater, from the General Preferences list select Power, tap on the Beam Receive pick list, then select Off to disable automatic beam receiving, and tap Done.

Adjust the Power Options settings

You have several options for controlling your handheld device’s power management. On devices running Windows Mobile for Pocket PC’s, go to the Start menu / Settings, select the System tab, and then tap on the Power button. Here you can adjust the amount of time your device automatically turns off after inactivity and other options.

For devices running Windows Mobile for Smartphones, go to the Programs menu, Settings, and then scroll down and select Power Management. Here you can adjust the brightness level, backlight time out, power savings time out and in-call screen time out options.

For devices running Palm OS 4 or greater, from the General Preferences list, select Power. Here you can adjust the auto-off time, IrDA Beam Receive (as mentioned in the Turn off Automatic Beam Receive tip), and other power options to save power consumption.

Adjust the CPU Mode (Pocket PCs & Pocket PC Phones, if available)

Some Pocket PCs include an additional CPU Mode option for increasing or lowering the processor power. Lowering this option will increase battery life. You can access this by going to the Start menu / Settings, select the System tab, Power, and then selecting the CPU Mode tab.

You’ll have three options: Turbo Mode, Normal Mode and Low Power Mode. When traveling, choose Low Power Mode to save a substantial amount of power. Your Pocket PC may seem a little bit slower, but you’ll be able to use it for a longer amount of time. *Do not* choose Turbo mode unless you want to dramatically decrease your Pocket PC’s power, and fast. Typically, only choose Turbo mode when you’re connected to a power source, and running a presentation from your Pocket PC or playing media files.

Lower the screen brightness of your handheld

Adjusting the screen brightness on your handheld to a lower level will help save battery power. The brighter the screen on battery power, the quicker your handheld’s power will deplete.

To adjust the screen brightness on devices running Windows Mobile for Pocket PCs, go to the Start menu, Settings, System tab, select Backlight, then tap on the Brightness tab.

For Palm Powered handhelds running Palm OS 4.0 and greater, you can adjust the screen brightness by tapping on the screen brightness icon in the graffiti area.

Avoid playing music and video

Playing music and video on your handheld on batteries will quickly reduce power. So unless you absolutely need to play music and video on your handheld while on batteries, save your power and wait until you can connect to a power source.

See the [Travel/Outdoors](#) section to learn about more power options when traveling.

MEMORY MANAGEMENT

Memory Management Tips for Handhelds

Handheld computers handle and use memory very differently compared to Notebooks, Desktops and Tablet PCs. While the average notebook PC has a 40GB hard drive and 512 MB of RAM, the average handheld computer will have only 32 MB of ROM and 32 - 64 MB of RAM (for a detailed explanation of ROM vs RAM, read the FAQ section). Until we see handheld computers with gigabytes of memory, it is important to manage your handheld computer's memory so you won't run out of space.

Uninstall programs you don't use

You can free up some of your handheld's memory by uninstalling programs you don't need. Here's how:

- **Windows Mobile Pocket PCs** - With Pocket PCs/Pocket PC Phones, you can uninstall programs in one of two methods: Use Microsoft ActiveSync on the desktop/notebook PC, or uninstall programs from the Pocket PC directly. Both methods work the same way for the Pocket PC, but the first method (ActiveSync) is recommended because it helps the desktop/notebook PC keep track of which programs have been uninstalled from the Pocket PC.

To uninstall programs via ActiveSync, first synchronize your Pocket PC with ActiveSync (and wait until it's finished!), then go to the *Tools* menu and select *Add/Remove Programs*. A window will appear showing you which programs are currently installed on the Pocket PC. To uninstall a program, simply uncheck the box to the left of each program name you want to uninstall, and then click *OK*.

To uninstall program directly from the Pocket PC, go the *Start menu / Settings*, tap the *System* tab and then tap on *Remove Programs*. Simply tap on the program you wish to remove and then tap on the *Remove* button.

- **Windows Mobile Smartphones** – Windows Mobile Smartphones include the same two methods (via ActiveSync and directly from the phone) of removing programs. However, the method for removing programs directly from the phone is slightly different. From the home screen, press the left soft-key, *Programs*, scroll down and select *Settings*, and then scroll down and select *Remove Programs*. Simply select the programs you wish to remove and press ok.
- **Palm Powered handhelds** – To remove software from Palm OS-based handhelds, from the applications screen, tap the menu button, tap the App menu, then tap delete. A list of the various applications that are currently installed will appear. Simply select the app that you want to remove, then tap the Delete button.

Remove unused files

Programs aren't the only files that take up memory on your handheld. There are probably other files including Word and Excel documents, eBooks, music files and more taking up unnecessary space on your handheld.

- **Windows Mobile Pocket PCs and Smartphones** – The best way to remove files from your Windows Mobile Pocket PC or Smartphone is to use the File Explorer.

Use the Memory slider to manually adjust between storage and program memory (Pocket PCs only)

Memory on Pocket PCs is shared between program memory and storage memory. The allocation of memory between program and storage memory is automatically managed, but you can manually adjust the allocation if necessary. For example, you might need to allocate more storage memory in order to add large files, or allocate more program memory for programs that use a lot of memory to run faster (such as games).

To adjust the storage and program memory allocation, go to the *Start* menu, *Settings*, select the *System* tab, and then tap on the *Memory* icon. Here you use the memory slider to temporarily adjust the allocation of storage and program memory available.

Add more memory to your handheld

If the previous memory tips haven't helped enough, it's probably time to add more memory. It's very easy to add memory to handheld computers. In most cases, just buy the type of memory card(s) that your handheld computer supports, put it in, then your handheld will have immediate access to the additional memory. For a detailed explanation of the various types of memory, see the [FAQ](#) section.

WIRELESS NETWORKING

Getting the Best Signal Connections

Signal Blockers

If your wireless network connection is receiving poor signal strength, there are a few possible hindrances. Kitchen appliances, and foundations and walls made of metal and concrete can affect your connection. Make sure that your mobile device and/or wireless access point isn't located in an area surrounded by these. Your body can also interfere with or even block a signal. Try elevating your notebook PC on a table or even a pillow to improve your connection.

Increase the Radio Power

Some Wi-Fi cards and wireless routers allow you to change the amount of radio transmission power that they use. You will need to refer to the users manual to determine if you have this option, and if you do, set it to the maximum available to get the best signal.

Adjust your Antenna

If you use an wireless network card, you can dramatically improve your wireless connection by adjusting the position of the antenna on your router, access point or wireless network card. Also, make sure that the antenna is screwed tight and secure.

Add a Larger Antenna

Adding a larger antenna to your wireless access point or router can also increase signal strength. You can obtain antennas from many online resellers of wireless equipment.

Add a Wireless Ethernet Bridge

If adjusting placement of your mobile device and antenna positioning doesn't improve your connection, try adding a wireless Ethernet bridge to increase coverage of your wireless network such as the Motorola WE800G or the Linksys WET11.

Change the Channel

If there are other wireless networks in your neighborhood, there's a good chance that they use the same channel (channel 1 by default) that your wireless network uses, and in turn could be affecting your network. To change the channel of your wireless network (you have 11 channels to choose from), use the administration settings of your wireless router/access point to switch to another channel. Consult the user's guide for further instructions.

Move Closer

If possible, simply moving closer to a wireless access point can increase your connection strength.

Securing Your Wireless Network

Change your wireless gateway's default password

One of the first steps in securing your wireless network is to change your wireless gateway's default password. This can be done through your wireless gateway's configuration page. Since every wireless gateway is different, read your users manual on how to change the password.

Secure your wireless network with WEP or WPA

WPA is more secure than WEP, so if your wireless networking device supports WPA, enable WPA security. Keep in mind that you'll need WPA support on your router, access cards and operating systems, which may require you to download and install software updates or firmware upgrades. Visit the manufacturer's web site for WPA support information and downloads.

Change your SSID name

Most access points / routers ship with a pre-defined SSID (network name) by default set by the manufacturer. These are usually generic names like "default," "linksys," "netgear," or "wireless" that are easy for hackers to exploit. An SSID can be changed at any time, as long as the change is made on all mobile devices as well.

When changing a SSID name, *do not* to use your personal information as part of the SSID, or using tempting name like "TOPSECRET." *Do* pick an SSID that uses both letters and numbers, and try to make it a long name.

It is also recommended that you should also change your SSID name every few months.

Enable MAC Address Filtering

MAC Address filtering will allow you to provide access to only machines with specific MAC addresses. MAC address filtering makes it just about impossible for a hacker to break into your network because only machines with known MAC addresses can see the network.

To find your machines MAC address on notebooks running Windows, start the command prompt by going to the Start menu / Accessories / Command Prompt, then when the command prompt screen appears, type *ipconfig /all*. This will give you the physical (MAC) address of your network card so you can add it to your MAC address list.

On PDAs running Windows Mobile 2003, go to Settings / System / Asset Viewer. For Palm OS devices, the MAC address is listed on the Info screen of your Wi-Fi Preferences window.

SECURING YOUR MOBILE DEVICES

General Tips for Securing Your Mobile Devices

Physically Protecting Your Mobile Device from Theft

Physical security is the first line of defense to protect your mobile device from theft. Notebook PCs and handhelds are prime targets for thieves,

A highly recommended

PDAs typically do not have built-in security slots like most notebooks and Tablet PCs. There are a couple of manufacturers that sell special locks

Insure Your Mobile Device

It could happen any time, you leave your laptop or handheld in the back seat of a cab, accidentally drop it or spill liquid on it. Insurance for your mobile device will typically cover theft, loss, accidental damage, and fire and water damage for as little as \$3.99 a month. Many phone service providers offer portable device insurance. Contact your provider to see if insurance is offered, and if it is, they can usually add it to your phone bill. A couple of companies that offer mobile device insurance include Asurion (www.asurion.com) and Lock/line (www.lockline.com).

Use a wallet program to store private information

Electronic wallet programs allow you to store all of your important information on your mobile device in a format that's secure, easy to access, centralized and portable. I've used wallet programs for years on my mobile devices and highly recommend them to anyone with a computer. Two of the most popular wallet applications include eWallet by Ilium software (www.iliumsoft.com), and FlexWallet by TwoPeaks (www.twopeaks.com). Both manufacturers offer versions for different platforms including Windows, Windows Mobile for Pocket PCs and Smartphones, and Palm-Powered handhelds. For added security, these programs not only encrypt your data, but you can also add password protection to specific categories (like credit cards, etc).

Securing Your Handheld

Password protect your PDA

A study shows that roughly 50% of all professionals that use PDAs don't secure them, even with basic security features like password protection that can be easily enabled. I recommended that you enable password protection at startup, so whenever you turn on your device, you can enter a simple 4 digit code or opt for a more complex alpha-numeric password. This is not by all means the only way to secure your PDA, as there are a number of software titles and accessory add-ons to secure your PDA even further. But here we'll cover the basics.

To add password protection to devices running Windows Mobile for Pocket PCs, simply go to the Start menu, select Settings, and then tap on the Password icon. Here you can create a simple 4 digit password, create a strong alphanumeric password, and even the amount of time the PDA is unused before it requires you to enter a password (so you don't have to enter a password every few minutes you turn it on).

For Windows Mobile-based Smartphones, from the Home Screen, press the left soft key, select Programs, and select Settings, then scroll down and select Security. Here you have access to the password settings as well as other security options.

To assign a password on PDAs running the Palm OS, from the General Preferences list, select Security, tap the password box, and then enter a password and tap ok. You can also choose when the device is locked. To do this, from the General Preferences list, select Security, and then tap the Auto Lock Handheld box, enter your password and then tap ok. Here you can choose from several automatic lock options. Select your option then tap ok.

Enable the Power-on Owner Information display (Pocket PC devices only)

This tip doesn't provide any real security but makes it so that your Pocket PC displays the owner contact information every time it is turned on. To enable this, go to the Start menu, Settings, Owner Information, fill in your contact information and check the box besides "Show information when device is turned on."

Securing Your Notebook or Tablet PC

Password protection options for Notebooks and Tablet PCs

As with PDAs, there are a number of software and hardware-based security solutions available for Notebooks and Tablet PCs as well. But here we'll cover the basic password protection options for Notebooks and Tablet PCs. Note that this tip is for devices running any edition of Windows 2000 or greater.

First of all, make sure that a password is created for your user account. If your notebook or Tablet PC doesn't require you to enter a password, you will need to create one. And before you create password, make sure to consult with your IT support department before you do so, as it might cause problems with network access.

To create a password, go to the Start menu, Control Panel, User Accounts, click on the user account name used to log into the computer, and then click the "Create a password" option and follow the instructions (Note that if you do not have the option to create a password, but you see the option for "Change my password," then there is already a password created for the account. If you do not know the current password, you will need to consult with your IT support department for further assistance).

After creating your password, you'll have a few password protection options to choose from:

- **Password protect your screen saver** – You can require a password to be entered whenever the screensaver stops (when you start using the computer). To do this, go to the Start menu, Settings, Control Panel, and then open the Display control panel. Next, click on the Screen Saver tab, select a screen saver, specify the amount of time before the screen saver activates, and then click on the small box beside "On resume, password protect."
- **Password protect your computer from Standby mode** – From the Start menu, go to Settings, Control Panel, and then open the Power Options control panel. Click the Advanced tab, then click the small box besides "Prompt for password when computer resumes from standby."
- **Immediately lock your computer** – Sometimes you might want to immediately lock your computer instead of waiting for the screen saver or the computer to go into standby/sleep mode. To immediately lock the computer, simply press the Windows key + L.

TAKING CARE OF YOUR MOBILE DEVICES

Taking Care of Your Handheld

Inexpensive ways to clean and protect your PDA screen

Instead of purchasing special screen cleaner products for your PDA, an inexpensive way to protect your PDA screen is to use furniture polish. Furniture polish will help protect your screen from scratches and help buff out the existing scratches.

PDA screen protectors

A PDA screen protector/overlay is a highly recommended product to help protect your PDA screen. They also help reduce glare, and typically razor thin. You'll never really notice that it's there. You can find PDA screen protectors and virtually any office supply or computer / electronics store.

Rugged/Hard PDA cases

If you frequently use your PDA outdoors you should consider a rugged/hard PDA case. Rugged/hard cases are lined with cushion to protect your PDA from drops, shocks and collisions, and typically made of air-craft grade, scratch resistant metals. Some companies that make rugged/hard cases include Inno Pocket (www.innopocket.com), Fellowes (www.fellowes.com), Belkin (www.belkin.com) and Covertec (www.covertec.com).

Taking Care of Your Notebook/Tablet PC

Tips for cleaning and protecting your notebook/Tablet PC LCD screen

LCD screens are easily susceptible to damage and scratches, so it's a good idea to make sure you clean it often. However, you can't use any type of cleaning product on your LCD screen. Do NOT use alcohol or ammonia-based cleaning products, as they will cause permanent damage to your screen. The best type of cleaners to use are water, vinegar (mixed with water), Isopropyl Alcohol and Petroleum Benzene.

The types of clothes you should use to clean your LCD screen include computer screen wipes, which work great, and can be purchased at virtually any office supply, computer / electronics store, even grocery stores. Another method is to use a soft cotton cloth. Do not use paper towels or old rags as they will eventually scratch up your LCD screen.

When cleaning your LCD screen, do not spray liquids directly on the screen. First apply the cleaner directly to the cloth, and then gently stroke the cloth across the display in one direction, from top to bottom.

Avoid touching the screen with your fingers

Always avoid touching the LCD screen with your fingers, as this will cause smudges and oil buildup. When using Tablet PCs, always use the special pen provided with it.

BLUETOOTH

Give your Bluetooth devices a unique name

When connecting Bluetooth devices, you must initiate a discovery phase that basically scans the area for any Bluetooth devices within range. When the devices are listed, you can make connections to other Bluetooth devices. Since Bluetooth enabled devices are becoming more widespread, you will find that many devices will often have the same name as yours. That's why it is important to give your device a unique Bluetooth name to avoid confusion during the discovery process.

Use Your Bluetooth Enabled Mobile phone or PDA Phone as a Modem

If your mobile phone or PDA Phone features Bluetooth and your Notebook PC features Bluetooth as well (with built-in or from an add-on Bluetooth device), you can use your mobile phone or PDA as a wireless modem for your Notebook PC (must be running Windows XP).

To do this: 1) Turn on your Bluetooth enabled mobile phone/PDA Phone, then turn on the Bluetooth connection software. 2) Turn on Discoverable mode on the phone. 3) On the Notebook PC, go to *My Bluetooth Places* then select *View Devices in Range*. 4) After the scanning is complete, you should see an icon for your phone. Right-click on the icon and choose the *Discover Available Services* option. 5) right-click on *Dial-up Networking* and choose the *Connect Dial-up networking option*. The phone will then prompt you to accept the connection request, decline or add to paired. 6) Pair the phone and the notebook PC. 7) You will be asked to enter a 4-digit PIN code to pair up the devices (the PIN number is entered in the phone). 8) You will then be prompted to enter a user name, password and the phone number for your ISP dial-up connection. 9) Enter this information then click on the *Dial* button to complete the connection.

Note that this process only needs to be done once because both the phone and notebook PC were paired. If the devices were not paired, you will have to make the phone discoverable every time.

Don't get Bluejacked

Bluejacking is the art of using Bluetooth enabled devices such as phones to send anonymous messages to other Bluetooth enabled devices. To avoid being Bluejacked, the simplest method is to simply turn off the Bluetooth antenna on your mobile device. Since the range of Bluetooth is typically around 30 feet, if you look around you can probably spot the person who's doing the Bluejacking.

TRAVEL/OUTDOORS

General Tips When Traveling/Outdoors with Your Mobile Device

Locating Wi-Fi Hotspots

There are many places that have wireless hotspots to access the Internet. A couple of tools to find wireless hotspots in specific areas include Intel's hotspot finder (<http://intel.jwire.com>) and WiFinder (www.wifinder.com).

Depending on where the Wi-Fi hotspot is, you may or may not have to pay for access. Over the past 18 months, some 1,500 major restaurants (such as Schlotzsky's Deli), coffee shops, hotels (such as Best Western), and airports have begun offering free Wi-Fi service. But there are still many places that do charge for Wi-Fi access (McDonalds, Starbucks Coffee for example).

Pay Wi-Fi service providers typically offer monthly or daily access plans. To learn more about Wi-Fi access plans, you can visit the T-Mobile HotSpot web site (http://selfcare.hotspot.t-mobile.com/services_plans.do), Boingo Wireless (www.boingo.com/whatdoesitcost.html) or Wayport (www.wayport.net/chart).

GPS Navigation Solutions

If you travel a lot, consider a GPS navigation system for your Notebook, PDA or Handheld device. A GPS Navigation system typically consists of a GPS receiver card and software, and can be purchased from most computer/electronic stores. Most GPS systems come with US maps, but you have the option to purchase other worldwide maps as well. It is important to note that if you use a GPS system for your PDA and travel often, you should consider keeping more than one storage card (Compact Flash or SD for example) for storing additional maps.

Some GPS solutions providers include:

- **CoPilot Live** (<http://www.copilotlive.com>) – CoPilot Live offers GPS solutions for Windows Mobile Pocket PCs, Notebook PCs and Tablet PCs. They also offer GPS packages that include Pocket PCs as well.
- **Teletype GPS** – (www.teletype.com) – Teletype offers GPS packages for Windows Mobile Pocket PCs, Pocket PC Phones, Notebooks and Tablet PCs.
- **Pharos** (<http://www.pharosgps.com>) – Pharos offers GPS solutions for Windows Mobile Pocket PCs, Notebook PCs and Tablet PCs. They also offer Bluetooth-based GPS systems.
- **Mapopolis** (<http://www.mapopolis.com>) – Mapopolis offers GPS solutions for Palm Powered handhelds and Windows Mobile Smartphones.

Travel/Outdoors Tips for Handhelds

Consider purchasing a rugged handheld case

As mentioned in the [CARE](#) section, if you travel with your handheld often, a rugged/hard case for your handheld will help protect it from rain, dust, shocks, drops and more. Inno Pocket (www.innopocket.com), Fellowes (www.fellowes.com), Belkin (www.belkin.com) and Covertec (www.covertec.com) are several companies that make rugged/hard cases. You can often find hard cases at office supply stores and computer / electronic stores.

Travel/Outdoors Tips for Notebooks and Tablet PCs

Finding Power Outlets: Airports

This tip was featured in the Power section, but also applies to travel. If you have problems locating a power outlet in an airport, baggage claim terminals usually have more power outlets than other areas of an airport. Also look for telephone stations with data ports as there will usually be power outlets there as well. And if all else fails, ask an airport worker.

Before Traveling Overseas, Learn about Electric Voltage Standards where Traveling

Electric voltage standards vary from county to country, so before you travel overseas check out the World Electric Power Guide, located at <http://kropla.com/electric.htm>. This guide will help you deal with some important issues when using your mobile devices in other countries and includes tables, illustrations and helpful advice.

Consider Purchasing a Worldwide Power Adaptor Kit

Another tip when traveling overseas is to consider purchasing a worldwide power adaptor kit, such as the teleadapt Global Pak (www.teleadaptusa.com), which includes 18 Teleadaptors and 7 power plugs for power and analog modem coverage in over 225 countries.

PRINTING WIRELESSLY FROM YOUR MOBILE DEVICE

There are many types of wireless printing solutions available that allow you to print from almost any type of mobile device to almost any type of printer.

Wireless Printing Technologies

Technologies that support wireless printing

- **IrDA** (infrared) – IrDA is the simplest and quickest way to print from a mobile device to an IrDA enabled printer such as the [HP LaserJet 4100mfp](#) or the [Canon i70](#) mobile portable printer. This approach to wireless printing is an affordable way to provide printing functionality without the need to connect to a network or install a Wi-Fi or Bluetooth expansion card. Keep in mind that IrDA range is only 3 feet, and requires a clear line of sight to the printer. Typical speed for IrDA is around 4 Mbps, which actually isn't bad.
- **Bluetooth** – Many newer model notebook PCs, Tablet PCs and handheld devices are coming standard with Bluetooth technology built in, and there are many newer model printers that come with Bluetooth technology built-in as well like the [HP Deskjet 995c](#) and the [Canon i80](#). Devices with Bluetooth technology can automatically connect with they come in range of each other, making it convenient and easy to use. Typical Bluetooth range is 30 feet, and the average transmission speed is only 1 Mbps.

It's easy to add Bluetooth functionality to handhelds and printers if they don't have Bluetooth technology built in, too. There are a number of Bluetooth adapter cards for computers in the form of PC cards, SDIO cards and external USB adapters, as well as USB print servers that add Bluetooth printing functionality to almost any type of printer.

- **Wi-Fi** – Also known as 802.11b/g, Wi-Fi is the standard in wireless networking solutions, including printing. Newer model printers are coming with Wi-Fi functionality built-in, and it is very easy to add an internal or external Wi-Fi adapter to your printer depending on the type. There are many Wi-Fi adapters on the market from HP, Linksys, SMC and more. Typical Wi-Fi range is around 300 feet, and transmission speed is 11Mbps.

Know what technologies your computers and printers support

IrDA, Bluetooth and Wi-Fi all support wireless printing solutions, but for your solution to work all of your devices must speak the same language. Neither technologies are compatible with each other, so you must know and plan what technology (IrDA, Bluetooth or Wi-Fi) your devices (computers and printers) will use for wireless printing.

Share printers physically connected to your desktop/notebook PC

Any printer(s) physically connected to a desktop or notebook computer with Print Sharing enabled allows all of the computers on the network to print to it. Of course the connected computer must be turned on in order for the printer to function with the rest of the network.

There are limits of course to sharing a printer connected to a computer, including the connected computer must always be on in order for the printer to function with the rest of the network, and the printer is limited to the number of places where it can reside, generally only a few feet away from the computer it's connected to.

Consider a Wi-Fi or Bluetooth Print Server for your printer

If your printer does not have Wi-Fi and/or Bluetooth technology built in, and you don't want to share a printer connected to a PC, a Wi-Fi Print Server (like the [Linksys WPS11 Instant Wireless Print Server](#)) or Bluetooth Wireless print server (like the [HP Wireless BT1300 Bluetooth Print Server](#)) lets you connect a USB and/or parallel printer directly to your network, eliminating the need to dedicate a PC as a "print server" so you don't have to leave it on all the time, and enable you to place the printer virtually anywhere you'd like. A wireless print server is a very small device that physically attaches to any printer, connecting the printer to the network so that devices can wirelessly connect and print directly to it. Wireless Print servers typically cost between \$79 and \$150.

Printing Wirelessly from your Handheld Device

Printing from a handheld device such as a Pocket PC, Pocket PC Phone, Palm or RIM handheld requires additional software installed on the handheld to enable wireless printing functionality. Some manufacturers however include 3rd party printing software with their handhelds like the HP iPAQ series Pocket PCs.

There are several popular printing software packages available for Windows Mobile Pocket PCs, Smartphones and Palm Powered handhelds, including:

- **PrinterOn PocketWhere** (www.printeron.net) – Available for virtually any type of handheld computer and even mobile phones, PrinterOn PocketWhere allows you to print or fax documents from your handheld device. You can use printers and fax machines in hotels, convention centers and Wi-Fi hot spots.
- **ANYCOM PocketPrint** (www.anycom.com) – Available for the Pocket PC, PocketPrint allows you to print from your Pocket PC / Pocket PC Phone device to any Bluetooth, infrared or Wi-Fi enabled printer.
- **FieldSoftware SmartPhonePrint** (www.fieldsoftware.com) – Available for Windows Mobile-based Smartphones, SmartPhonePrint allows you to print to any Bluetooth, infrared or Wi-Fi enabled printer.
- **PrintBoy Anywhere** (www.bachmannsoftware.com) - PrintBoy Anywhere allows Palm Powered handhelds to print documents, spreadsheets, databases, and other business-critical information using infrared, Bluetooth, Wi-Fi/802.11, PDA-phone, or other network connection.

Printing Wirelessly from your Notebook PC/Tablet PC

To print wirelessly from your notebook PC or Tablet PC, first, your device will need to have either a Wi-Fi, Bluetooth or infrared port (Tablet PCs typically have built-in Wi-Fi and infrared functionality), or you can always add a Wi-Fi, Bluetooth or infrared adapter card.

Since instructions for Wi-Fi and Bluetooth wireless printing may vary depending on the mobile device, printer or wireless print servers used, you will need to refer to the user's documentation that came with the device.

FAXING FROM YOUR MOBILE DEVICE

We may live in a world full of email, SMS messages and mobile phones, but there are still moments where you'll find yourself needing to send or receive a fax. And if you're frequently on the go, this can get quite annoying. However, there are several types of fax solutions for mobile computers that even allow you to send, receive and print faxes wirelessly (through a Wi-Fi, Bluetooth or cellular connection). In this section, we'll go over the most common fax solution for mobile devices.

Fax solutions for PDAs and Smartphones

Handheld operating systems that run PDAs and Smartphones including Windows Mobile Pocket PCs and Smartphones, Palm-Powered handhelds and BlackBerry's do not have built-in fax support. However, there are 3rd party software solutions available for PDAs/Smartphones that enable you to send, receive and print faxes directly from them.

3rd Party Fax Programs

- **PrinterOn PocketWhere** (www.printeron.net) at this writing is the only fax software that's compatible with almost all common handheld platforms including Pocket PCs, Palm Powered handhelds, BlackBerry handhelds and even mobile phones. PocketWhere allows you to print and fax documents, email messages and attachments, and web pages from your Pocket PC. However, to use the wireless functionality of PocketWhere, you must subscribe to a monthly service plan through PrinterOn Wireless or purchase a server-based application that you install on your network server.
- **KSE Truefax** (www.ksesoftware.com) allows you to send and receive faxes from your Pocket PC. It is most fully featured fax software available for the Pocket PC as of this writing, doesn't require you to subscribe to a monthly service, however, it requires you to connect your Pocket PC to a mobile phone (currently, it does not support the built-in phone functionality of Pocket PC Phone Edition devices). It features the ability to send, receive and print faxes via infrared or Bluetooth, and integrates with the Microsoft Pocket Outlook address book.

Fax Solutions for Notebook PC/Tablet PCs

There are several fax options I will recommend for users of Notebook PCs and Tablet PCs running Windows XP.

Windows Fax Console

Did you know that Windows XP has built-in fax software? You can send and receive faxes from any computer running Windows XP, but you will need to physically connect your PC directly to a phone line and use that phone lines number to receive faxes. To access the built-in fax support in Windows XP, first make sure it is installed.

To make sure Fax support is installed:

1. Open the *Printers and Faxes* folder from the Windows Start menu
2. Look for a device icon labeled *Fax* (not eFax, or WinFax, just Fax).

If you do not see a device labeled *Fax*, click on the "Setup Fax" link in the left pane. This will automatically install the necessary files that will enable Windows XP fax support.

Next, access the Windows Fax Console from the *Start* menu / *Accessories* / *Communications* / *Fax* / *Fax Console*

In the Fax Console, you can setup your computer to send and receive faxes using a regular phone line. For detailed setup help and instructions, go to the *Help* menu and select *Help Topics*.

Internet Fax Services

- **eFax** (www.efax.com) allows you to send and receive faxes over the Internet only, but if you have access to a Wi-Fi Internet connection, you can send/receive faxes wirelessly. eFax offers two subscription services: a free receive-only fax service with a non-local number, or you can sign-up/upgrade to an eFax Plus account, which allows you to also send faxes and choose an area code phone number of your choice for \$12.95 per month.

3rd Party Fax Software

- **WinFax Professional** by Symantec (www.symantec.com/winfax) is the industry leader and corporate standard in fax software for Windows-based computers (WinFax is not compatible with handheld devices, only desktop PCs, notebook PCs and Tablet PCs running Windows).

WinFax is a feature-rich program that allows you to send and receive faxes through your phone line or over the Internet using one of many Internet fax services like Concord Internet Fax (www.concordfax.com), RightFAX (www.rightfax.com) and more. WinFax integrates with Microsoft Outlook, and you can even turn your computer in a “fax server” so that other computers on the network can fax through your computer. For more information on WinFax Pro visit www.symantec.com/winfax.

INPUTTING DATA

Quickly inputting data on mobile phones

Learn T9

T9 is a predictive text inputting system that makes word input easier on mobile phones. Instead of having to select letters individually by pressing each key numerous times, T9 makes a “guess” at what you’re writing as you go along, reducing the number of key presses required. You can find more information and tutorials on T9 input by going to www.t9.com.

Quickly inputting data on Pocket PCs & Pocket PC Phones

Block Recognizer, Keyboard, Letter Recognizer or Transcriber. What’s easiest?

Pocket PCs and Pocket PC Phones have four ways of entering information, but every user has their own personal preference. Users can select their preferred input method by tapping on the triangle in the lower right corner of the screen.

- **Block Recognizer** – Block Recognizer is similar to the Graffiti software used on Palm-based handhelds. Basically you hand-write letters (using a single stroke writing method) into the Block Recognizer window at the bottom of the screen, and Block Recognizer will automatically convert it to text. Graffiti has a learning curve, but it does not take a long time to learn. You can access the Block Recognizer tutorial by tapping the “?” button near the lower right corner of the screen.
- **Keyboard** – The keyboard is the most familiar method of entering information. When this option is selected a small QWERTY keyboard appears at the bottom of the screen. Simply tap on the desired character to enter it on screen.
- **Letter Recognizer** – The Letter Recognizer allows input of natural character strokes using the stylus. You can access the Letter Recognizer tutorial by tapping the “?” button near the bottom-right corner of the screen.
- **Transcriber** – Transcriber is more advanced as it can recognize script and printed characters, as well as numbers and symbols. In Transcriber mode, a user can write anywhere on the screen. You can access the Transcriber tutorial by tapping the “?” button near the bottom-right corner of the screen.

Change the Word Completion Settings

A few settings that make text input much faster on Pocket PC devices is the Word Completion settings. Word Completion basically works by typing (tapping) in 1-4 letters, and then a pop-up box will appear with up to four “guesses” on the word you’re trying to type. For example, if you type the letters “conv” when you’re composing a message, a pop-up box will appear with four words that begin with “conv.” Simply tap on the correct word (if listed) and it will automatically be inputted.

You can adjust the Word Completion settings by going to the Start menu / Settings / Input (under the Personal tab), then tap on the Word Completion tab. Here you can specify how many letters you enter before any word suggestions appear, how many word suggestions appear

Use the My Text Messages option to quickly input commonly used messages

My Text Messages are default messages that can be entered into a message without actually typing the message. A total of 10 messages can be saved. To access/edit My Text Messages, go to the *Start Menu / Programs / Inbox*, then click on the *Tools* menu and select *Edit My Text Messages* from the menu. You will see that there are 10 default messages already programmed. You can edit/replace these messages with the default messages of your choice by tapping on each message and typing a new message into the message field below.

Quickly inputting data on Tablet PCs

Use Windows Journal to markup virtually any type of document

Windows Journal on the Tablet PC allows you to markup virtually any type of document with your tablet pen to easily annotate documents. This basically works by “printing” the document from any application to the Windows Journal printer. This converts the document to a Windows Journal document that you can write on with the tablet pen. It’s also important to know that anything you handwrite into Windows Journal can be searched.

Getting the most from the Input Panel

The Input Panel in Tablet PCs makes it possible to input data several ways without a keyboard. The Input Panel enables you to input text in four ways:

1. On-screen keyboard
2. Handwriting recognition
3. Recognition of a single characters and shortcut strokes (similar to graffiti)
4. Voice recognition

You can open the input panel by tapping the input panel button in the Windows taskbar, or using the “in-air shake system,” which allows you to open the Input Panel by simply moving the tablet pen from side to side above the surface of the display.

Inputting data through speech recognition

You can input data by dictating text and speaking commands to your mobile device. For more information see the [Speech Recognition](#) section.

SPEECH RECOGNITION ON YOUR MOBILE DEVICE

Speech recognition software enables your computer to convert spoken words to text allowing you to dictate content for documents including letters and e-mail, and even speak commands to your mobile device computer to launch a program, turn your mobile device off, and much, much more.

To use speech recognition on your mobile device, you will need two components. Speech recognition software, if it's not already included on your device, and a microphone, if it's not already included on your device. Tablet PCs come with both speech recognition software and microphones built-in. Windows Mobile Pocket PCs and Smartphones, and some Palm Powered handhelds include built-in micro-phones, and may include speech recognition software depending on the manufacturer.

Recommended microphones

If your mobile device does not feature a built-in microphone, below are several microphones that I recommend:

- **InSync Buddy USB Microphone** – USB microphone with on/off switch. This microphone uses dual element noise canceling. Highly accurate. \$119 USD retail.
- **Andrea Electronics NC61** – Uses noise canceling microphone technology that significantly reduces background noise enhancing speech recognition software performance. \$29.95 USD retail.
- **Platronics Aud50** – Monaural PC headset with inline control. Very accurate. \$21.95 USD retail.

Speech Recognition software for Notebook PCs

Office XP/Office 2003

Did you know that Microsoft Office XP and greater features built-in speech recognition software? The Office speech recognition software should already be installed on your computer if you have Office XP or greater installed, *unless* it was installed through a custom installation and manually de-selected.

If you do not have the Office speech recognition software installed on your computer and you are running Office XP or greater, you can add it through the Microsoft Office Setup program (accessed through the Control Panel). It is located under Office Shared Features / Alternative User Input / Speech.

Detailed instructions on how to use the Microsoft Office speech recognition software can be found at: <http://support.microsoft.com/default.aspx?kbid=306901>

Dragon NaturallySpeaking

Dragon NaturallySpeaking by ScanSoft is the premier speech recognition system at present. Accuracy scores in the high nineties will be the norm rather than the exception. NaturallySpeaking requires minimal training time; plain English commands control a wide range of Windows software. \$195 USD retail. www.scansoft.com/naturallyspeaking/

IBM ViaVoice Pro USB Edition

IBM ViaVoice Pro USB Edition includes a USB headset microphone with digital signal processor for higher speech recognition accuracy. \$199 USD retail. www.scansoft.com/viavoice/pro/

Speech recognition software for Tablet PCs

Tablet PCs have built-in speech recognition software (and microphones as well). However, if you do not want to use the built-in speech recognition software you can always opt for the speech recognition software listed above for notebook PCs.

The Tablet PC speech recognition engine works well, provided you have adequately trained the speech engine.

Speech recognition software for PDAs and Smartphones

Fonix VoiceSuite

[VoiceSuite](#) by Fonix (www.fonix.com) is available for Windows Mobile Pocket PCs/Pocket PC Phones, Smartphones, Palm Powered handhelds and Symbian OS devices. VoiceSuite includes 5 applications:

- Fonix VoiceDial™: totally interactive, hands-free software application that enables you to place calls by number or by contact. (BUY NOW!)
- Fonix VoiceEmail™: conduct "e-mail triage" by voice. You can reply with a set of canned responses or even reply with a .wav audio file.
- Fonix VoiceInternet™: navigate the Internet by voice on your device, access databases or business websites.
- Fonix VoiceCalendar™: manage your calendar, including rescheduling appointments, on the go.
- Fonix VoiceCallerID™: hear who is calling, then decide to answer or send them to VoiceMail

VoiceSuite is available for trial download or for purchase from the Fonix web site (www.fonix.com).

Microsoft Voice Command (Pocket PCs/Pocket PC Phones only)

The best speech recognition software available for Pocket PCs/Pocket PC Phones in my opinion is Microsoft Voice Command (\$39.99 USD retail). You can use Voice command to look up contacts and place phone calls, get calendar information, play and control your music, launch programs and more. Voice command requires no voice training either. Just install and use right out the box.

Microsoft Voice Command requires Windows Mobile 2003, so unfortunately if your Pocket PC/Pocket PC Phone runs the Pocket PC 2002 operating system and there's no upgrade available, you'll either have to wait for a software upgrade or upgrade to a newer device.

For a full review of Microsoft Voice Command visit www.mbizsolutions.com/reviews/software/pocketpc/voicecommand

SYNCHRONIZING AND TRANSFERRING DATA

General Tips for Synchronizing and Transferring Data between Mobile Devices

Use a SIM card to transfer phone data between mobile phones and/or Smartphones

If you have multiple phones with the same service provider that use SIM cards, you can easily transfer your phonebook and personal information by switching your SIM card between phones. This is ideal in situations where you might have a larger PDA Phone, but sometimes just want to carry a small mobile phone instead.

Keep Your Phone Number

Wither you use a Smartphone or basic mobile phone, you can transfer your phone number from one wireless provider to another (as long as you stay in the allowed calling areas). You can also transfer a LAN line phone number to a wireless provider as well. Also, double-check with your current provider to make sure that you're not on contract, and if you are be prepared to pay a termination fee.

Synchronizing and Transferring Data between Handhelds

Beaming data between Windows Mobile devices and Palm Powered handhelds

The only type of data you can beam between Windows Mobile devices and Palm OS devices without extra software is contact data. If you want to exchange tasks, appointments and memos, download Peacemaker by Conduits (www.conduits.com/products/peacemaker) for the Pocket PC.

Synchronizing Handhelds with more than one PC

Synchronizing Windows Mobile handhelds and Smartphones with more than one PC

Windows Mobile Pocket PCs and Smartphones by default can only sync with two computers at a time, and only one computer can synchronize the email. If you need to sync your Windows Mobile device with more than two computers (which is not advisable), I recommend Sync Manger by KelBran Software (www.kelbran.com), Many Partners from MyDocs Unlimited (www.mydocsunlimited.com), or Pocket Multi Partnership Sync from Thai Pocket PC (www.mydocsunlimited.com), which will allow you to sync your Windows Mobile device with more than two PCs.

Synchronizing Palm Powered handhelds with more than one PC

Palm handhelds by default can synchronize with multiple computers. The Palm handheld will use each individual HotSync Manager to determine what to sync.

Synchronizing and Transferring Data between Mobile phones

Sync your mobile phone contact data with your desktop/notebook PC

Most mobile phone manufacturers and phone service providers offer PC synchronization kits that include cables and software to synchronize your mobile phone with Windows software including Microsoft Exchange, Palm Desktop and more. Since there are different kits for different phones, call your mobile phone service provider or visit your phone manufacturers' web site to find the synchronization kit that works with your phone (If your phone service is through Verizon Wireless, visit www.verizon.com and go to the products section, and so forth for each different provider).

Transferring your data from one platform to another platform

Transferring your data from a Palm handheld to a Windows Mobile handheld and vice-versa

There are several ways to transfer your data from a Palm OS-based handheld to a Windows Mobile-based handheld, and vice-versa.

Before continuing, it is important to know that these methods will only transfer your Contacts / Address Book, Date Book / Calendar appointments, Email, Tasks and Notes data, and will *not* transfer 3rd party application data. To transfer 3rd party application data, you will need to download and install the 3rd party software onto the platform you are converting to (*if it's available for that platform*), and then sync the 3rd party software with the new handheld.

The first step in converting your data from a Palm to Windows Mobile device is to install Microsoft Outlook 2000/2002/2003 from the software CD that came with your Windows Mobile device. Windows Mobile devices use Microsoft Outlook for synchronizing data, where Palm-based handhelds use the Palm Desktop software and other applications.

Keep in mind that you may have to physically disconnect your Palm handheld after synchronizing it with Outlook, if it physically shares the same port as your Windows Mobile device.

After you have installed Microsoft Outlook, download and install either of the following software listed below and follow the instructions to convert your data:

1. **Intellisync** (www.intellisync.com), \$69.95 – After installing Intellisync, synchronize your Palm handheld with Outlook, and then sync your Windows Mobile device with Outlook (additional instructions included with software).
2. **Pocket Mirror** conduit by Chapura (www.chapura.com/pm_professional.php), \$49-\$59 - After installing Pocket Mirror, synchronize your Palm handheld with Outlook, and then sync your Windows Mobile device with Outlook (additional instructions included with software).
3. **Resync** by Stratabase (www.stratabase.com/resync), currently free (BETA) – After installing Resync, sync your Palm handheld with Microsoft Outlook, and then sync Outlook with your Windows Mobile handheld (additional instructions included with software).

Transferring your data from a BlackBerry to a Windows Mobile handheld

BlackBerry handhelds come with software that synchronizes with Microsoft Outlook. To transfer this data to a Pocket PC, just install Microsoft ActiveSync (www.microsoft.com/windowsmobile/downloads/activesync37.msp) and synchronize your Pocket PC with Outlook.

PRESENTATIONS ON YOUR MOBILE DEVICE

What you need to do presentations from your mobile device

When doing presentations, no matter what type of mobile device you're presenting from, it's recommended to use a projector when displaying a presentation to two or more people. If you're using a Notebook or Tablet PC, you can probably get away with using the Notebook/Tablet PC when only presenting to one person. The typical tools you will need to do presentations include:

- **Video display adaptor**
You will need a video display adaptor to display presentations on an external video source if your mobile device does not have a monitor/video-out port (found on most notebooks and Tablet PCs). If you use aPDA/Smartphone, you can find video display adaptors in various types of card formats including SDIO, CompactFlash and PC Card/PCMCIA. Margi (www.margi.com) develops a wide assortment of video display adaptors and other mobile presentation accessories for handheld devices.
- **PowerPoint viewer software**
If you do not have the full version of PowerPoint on your mobile device (Notebooks/Tablet PCs only), you will at least need PowerPoint viewer software to show PowerPoint presentations.
- **Mobile projector**
If you're not connecting your mobile device to a TV/monitor to show presentations, mobile projectors are highly recommended. For a list of mobile projectors and reviews, see CNET's [guide of projectors/presentation devices](#).

Presentation Hardware/Software Packages

You can purchase hardware and software packages that include everything you'll need but the projector/monitor. A couple of developers include:

- **Margi** (www.margi.com) offers complete hardware and software solution packages for Notebook PCs, Tablet PCs, Windows Mobile Pocket PCs/Smartphones and Palm-Powered handhelds/Smartphones. The Margi software allows you to create a presentation slide from any Windows document that can print, so you can display slides from PowerPoint, Word, Excel and many other Windows applications.
- **Colorgraphic** (www.colorgraphic.net) offers a package that includes a CF (Compact Flash) card and software package for Pocket PCs.

PowerPoint viewer software for Windows Powered Pocket PCs and Smartphones

PowerPoint viewers for Pocket PCs

There are a number of stand-alone PowerPoint viewers for Windows Mobile Pocket PCs and Smartphones. Some of the most popular programs include:

- **Pocket Slides** by Conduits (www.conduits.com) is a fully featured presentation tool for Pocket PC enabling users to create, view or give presentations using a mobile device. With support for animations and VGA output, Pocket Slides gives you genuine presentations on your Pocket PC.

- **Pocket SlideShow** by CNetX (www.cnetx.com) is a PowerPoint presentation viewer for Windows Mobile Pocket PCs and Smartphones. Pocket SlideShow includes features to browse slides, rearrange their order, edit animations, or even merge presentations directly on your PDA, and is compatible with many VGA cards.

PowerPoint viewers for Palm-Powered handhelds

- **Quickpoint** by iGo (www.igo.com), included with the Quickoffice for Palm suite (unfortunately you can't buy it separately) allows you to work with presentations on your Palm handheld and seamlessly integrates with Microsoft PowerPoint 2000, 2002 (XP) or newer.

General Presentation Tips for Mobile Devices

Keep multiple copies of your presentation file

You never know what might go wrong, so be sure to always keep several copies of your presentation file with you at all times; one on your mobile device, one on CD, and one in paper handout format. This will prepare you for any and all unforeseen circumstances when making a presentation.

Use the PowerPoint “Package to CD” option

Microsoft PowerPoint features a “Package to CD” option which copies your presentation file to CD, *and* a PowerPoint presentation viewer application (for showing presentations on Windows computers without the full version of PowerPoint). To use the “Package for CD” option, select “Package for CD” from the file menu.

Presentation Tips for Notebooks/Tablet PCs

Match the screen resolution of your Notebook/Tablet PC to your projector resolution

For the best looking presentations, your notebook/Tablet PCs screen resolution should match the resolution of your projector. Refer to your projectors users manual on how to adjust the screen resolution.

Keep a pair of external speakers

When showing presentations from your Notebook/Tablet PC, you may find that the speakers aren't powerful enough to fill the room. You should keep a pair of external speakers to resolve this problem. Creative (www.creative.com) makes an excellent travel speaker system called [TravelSound](#), a one-piece stereo speaker system with a small footprint size, and run on four AAA batteries.

BACKUP AND RECOVERY

Data loss is expensive, it cost \$12 billion a year for businesses. Backing up your mobile device is very important, especially if you use a PDA/Smartphone device. PDAs/Smartphones store data in a special type of memory that is saved when the device is turned off. But if the battery of your PDA/Smartphone dies, your data will be lost. Notebook PCs and Tablet PCs store data on hard disks, so you will not loose data if the battery dies on your Notebook or Tablet PC. But any other event/accident could happen, so it's recommended to backup your mobile devices data on a frequent basis.

Online Backup Services

Online backup services allow users to automatically backup their computers by sending encrypted data to an offsite storage facility at scheduled intervals. Multiple copies of the data are kept over a period of time, reducing the chance of losing important data due to an overwritten backup. Generally, online backups make the most sense for small and medium-size companies with high-speed Internet connections.

The features/advantages of using online backup services include:

- Strict security/secure connections
- 24-7 availability of data
- Scheduling of automatic backups
- No purchasing and maintenance of backup hardware

Disadvantages include:

- Monthly cost
- Requiring an Internet connection to backup/restore
- Backup time
- Currently not compatible with PDAs/Smartphones

Online backup services such as Connected TLM Business (www.connected.com) and Amerivault (www.amerivault.com) are typically targeted at corporate customers. Online backup services targeted at small office/home office customers include @Backup (www.backup.com), iBackup (www.ibackup.com) and SwapDrive (www.swapdrive.com).

Backup/Recovery Software for Windows Mobile Pocket PCs and Smartphones

Microsoft ActiveSync

Microsoft ActiveSync includes built-in backup and recovery features that allow you to backup all of your data to a file stored on your desktop/notebook/tablet PC. You can choose to have ActiveSync backup your data after each connection/sync operation (it must be physically connected), or you can choose to manually backup your data.

To backup your data, you must first create a backup file on your Windows PC in ActiveSync. To do this, open ActiveSync and choose Backup/Restore from the Tools menu (as shown below).

The Backup/Restore menu gives you several backup options; you can specify whether to do a complete backup, or incremental backup (which performs a one-time complete back, then a backup of only the changed files thereafter), choose to have the Pocket PC/Smartphone automatically backed up after each sync operation, and where you would like the backup file on your Windows PC to be stored.

When/if you need to restore data, keep in mind that you cannot choose specific files to restore. When backing up your mobile device via ActiveSync, you are only copying an “image” of your Pocket PC, and it will overwrite *everything* since your last backup.

In the event you need to restore your Windows Mobile devices data, open ActiveSync on the Windows PC and perform the following steps:

1. Since you are restoring your data, chances are that the battery died and you lost all of your data, and it is no longer recognized by ActiveSync. If this is the case, **DO NOT** setup a new partnership, but instead select the *Guest* option. This will allow you to restore your data without re-syncing/re-installing everything.
2. After choosing the *Guest* option and your Windows Mobile devices is connected, select *Backup/Restore* from the Tools menu. Click the *Restore* tab and then click the *Restore Now* button.
3. Select the backup file (you created) that you would like to restore, and then perform the restore. This will erase all of the data on your Windows Mobile Device and restore it to exact the state it was in at the last backup.
4. After restoring your data, remove your Pocket PC from the cradle/sync cable and perform a soft-reset. Your Windows Mobile device will be as it was when you last backed up, and you will be able to synchronize as normal.

3rd party backup/restore programs for Windows Mobile devices

There are many 3rd party backup/restore programs for Windows Mobile devices, and many devices now come with 3rd party backup software included. The advantages of using 3rd party backup/restore programs are often in speed, ease of use and additional options. Some of the most popular backup/recovery applications for Windows Mobile devices include:

- **Sprite Backup for Pocket PCs/Pocket PC Phones** (www.spritesoftware.com) – Sprite Backup is the most comprehensive backup/restore program available for Pocket PC devices. Backup and restore operations are typically faster than ActiveSync, and you can specify specific files/folders to exclude from backup
- **Sprite Backup for Smartphones** (www.spritesoftware.com) – Sprite Software also makes a version of Sprite Backup for Windows Mobile Smartphone devices, and it includes the same options as on the Pocket PC version.

Backup/Recovery Software for Palm-Powered handhelds

There are two ways to backup data on Palm-Powered handhelds; by backing up data to your computer through the Palm HotSync application, or to a memory card. Backing up your data to a memory card is often quicker, but you have to buy a memory card (\$15 - \$100 depending on the size). Backing up to your computer involves more steps, but is free.

Backing up data to a memory card

There are several 3rd party backup programs for copying your data and programs to a memory card. A few programs include:

- **BackupBuddy** VFS by Blue Nomad (www.bluenomad.com)
- **BackupEZ** by Dave O'Neil (www.handago.com)
- **JBBBackup** by Handfort Solutions (www.handfort.com)

Backing up data using Palm HotSync

HotSync automatically backups your data and application settings whenever you sync your Palm handheld with your Windows PC.

If you loose the data on your Palm handheld and want to restore it:

1. Open the HotSync application by double-clicking on the HotSync icon in the Windows system tray (lower right-hand corner)
2. From the HotSync menu, select *Custom*
3. Select the correct user name from the list.
4. Select a program from the conduit list, then click *Change*
5. Select *Desktop overwrites handheld* for each conduit, then click ok.
6. Repeat steps 3-5 to change conduit settings for other programs
7. Click *Done* to activate your settings
8. Perform a HotSync operation

Backup/Recovery Software for BlackBerry handhelds

The BlackBerry Desktop Manger application that comes with all BlackBerry handhelds includes features that enable you to backup and restore data.

To configure the BlackBerry Desktop Manager software for automatic backup:

1. Open the BlackBerry Desktop Manager (from the Start menu / Programs / BlackBerry / Desktop Manager)
2. In the configuration section, click *Options*
3. Make sure that *Automatically backup my handheld every # days*, is selected.
4. In the *When automatically backing up my handheld* section, select the desired options.
5. Click *Ok*.

To restore data to your BlackBerry:

1. Open the BlackBerry Desktop Manager (from the Start menu / Programs / BlackBerry / Desktop Manager)
2. In the Backup/Restore Now section, click *Restore*
3. Click the down arrow on the *Look In* drop-down list and open the file you wish to restore from.
4. When the Warning window appears, click *Yes* to proceed.
5. The data restoration process will begin.

TROUBLESHOOTING

Troubleshooting Wi-Fi Connections

Is Wi-Fi Turned On?

A common simple problem with mobile devices is often times the wireless antenna is turned off. Many devices require you to manually turn on the built in wireless antenna once the device is turned off. Double check to make sure that your Wi-Fi antenna is activated on your mobile device, which is commonly indicated by an indicator light.

The Occasional Connection Drop

A common problem, your mobile device's wireless network connection may fail after letting your device sit for awhile. This is caused by the wireless gateway's idle time. To adjust this, access your wireless gateway's settings and change the maximum idle time to zero.

Use the ipconfig Command

If you're using a notebook PC running a Windows operating system, you can manually renew the IP address if necessary to connect. To do this, click the Start menu, click Run, then type "command" (minus the quotes) and press ok. When the command prompt window appears, type "ipconfig" and press enter. If you don't get an IP address, if your IP address is 0.0.0.0 or your IP address begins with 169, try renewing the IP address by typing "ipconfig /renew" (minus the quotation marks) to receive an IP address. Most common valid IP addresses begin with 192 unless manually changed in the gateway's settings. If you receive an IP address that doesn't begin with 169, you should be connected.

802.11b Can Affect 802.11g

If your wireless router/access point is 802.11g, any devices using an 802.11b card can slow down your wireless network. The only fix to this problem is to get rid of your 802.11b cards and replace them with 802.11g technology.