

## Pocket PC Issues

There are a couple of issues that people sometimes encounter when running the PEAC-WMD program on their Pocket PC. Actually, these issues have nothing to do with the program. They are inherent in the Pocket PC itself. One issue is losing all your programs and information when the power completely drains from the Pocket PC. This is because today's Pocket PC uses volatile RAM memory. So when the power goes away, so does the memory contents. The other problem is less obvious ? it is taking up too much RAM memory by not closing the program properly. Both of these can easily be handled with a little know-how.

### Backup and Restore

Let's look at the first issue ? losing power, and all the data and programs from the Pocket PC. Generally, there are two ways to do a backup of your Pocket PC. One way is to use the computer to which the PDA is synched. The other way is to use the PDA itself. Both methods have advantages and disadvantages. Regardless of which method that is used, it is important to understand that there are two processes ? one is to backup the data, the other is to restore it after the data is lost.

#### Backup and Restore using ActiveSync?

The first method is to use ActiveSync and the computer to which the Pocket PC is synched. This method is fairly simple, and has several advantages. One advantage is that it stores the backup file on the computer, not the Pocket PC. This helps to save memory space on the Pocket PC by not using it for the backup files. And since memory is not a concern with this method, you can backup everything.

Another advantage is that you can set the backup tool to run automatically each time you connect the Pocket PC to the computer. And for those with older versions of the Windows Pocket PC operating system who do not have a backup/restore program on the Pocket PC itself, this might be the only method available.

To do this, simply connect the Pocket PC to the computer, either directly with a USB or serial cable, or using the docking cradle. Open ActiveSync and connect the two devices. (This is often done automatically.) Follow the steps below:

1. Open the ActiveSync window on your computer if it is not already open.
2. Click on ?Tools? and on ?Backup/Restore?.
3. The first time the Pocket PC is backed up, check the box by ?Full Backup?.
4. Then click on the button that says ?Back Up Now? at the bottom.
5. After the backup is complete, go back into this tool and click on ?Incremental backup?.
6. To make sure it is automatically backed up each time to connect to the computer, make sure the box is checked next to ?Automatically back up each time the device connects?. Then you can close this window and ActiveSync.

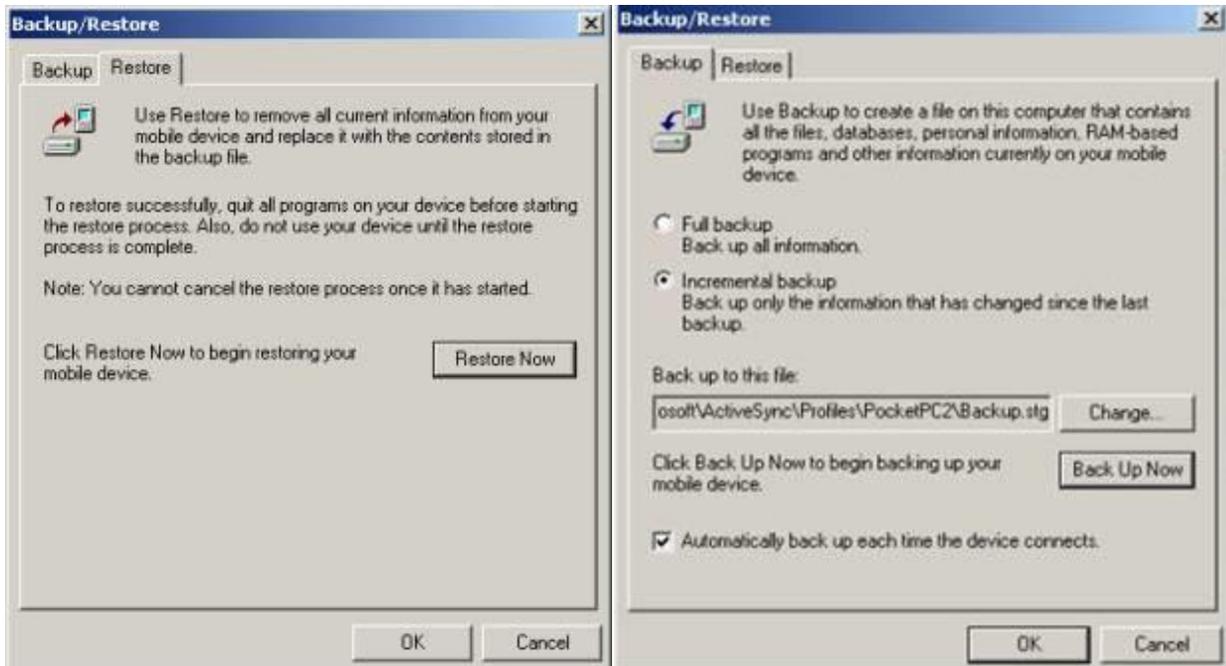
7. To restore the unit after a memory loss, sync it again, click on ?Tools?, and ?Backup/Restore ??, and click on the ?Restore? tab at the top of the program. Follow the directions on the screen.

The automatic backup is useful if you are routinely syncing your Pocket PC with your computer (PC) to maintain and update your list of contacts, calendar items, notes, email, etc. between the PC and Pocket PC. If the Pocket PC is used only to run the PEAC-WMD application, the automatic backup probably is not necessary. See the images below to get a better idea of how this works.

ActiveSync typically opens automatically when the Pocket PC is connected. Click on ?Tools? and ?Backup/Restore?? to begin the backup or restore process.



There are two tabs at the top. The program is defaulted to open to the ?Backup? tab. The first time the backup process is run, select ?Full backup?. Click the ?Change?? button to set the location of the backup file on the computer. Then click on ?Back Up Now?.



Once the backup is complete, re-open the program and click on ?Incremental backup?. If the Pocket PC syncs to the computer once or twice a day, or less frequently, it is a good idea to check the box next to ?Automatically back up each time the device connects.? Then click on ?OK.

If the Pocket PC loses power and its data and programs, simply sync the device again, open the backup program in ActiveSync, and click the ?Restore? tab. Click on ?Restore Now? and follow any other directions to restore the Pocket PC?s programs and data.

The disadvantage of this method is that you cannot restore your Pocket PC after losing programs and data unless you are at your computer. If you are ?out in the field?, on a call, at the scene of an incident, etc., you might be at a loss for the moment. However, if you lose power on your Pocket PC while you are away from your computer, you will not be able to restore that either without a power adapter cord.

ActiveSync? is a freeware program provided by Microsoft Corporation. If needed, the latest version can be downloaded from <http://www.microsoft.com/windowsmobile/downloads/activesync38.msp> .

### Backup and Restore on the Pocket PC itself

Then other method can be done right on the Pocket PC itself, without connecting to a computer. Many of the more recently manufactured Pocket PCs have a utility program that can perform the backup and restore processes to non-volatile memory on the Pocket PC.

These utilities may have different names, such as ?Backup Now? and ?Restore Now?, ?Sprite Backup?, ?iPAQ Backup?, ?Dell Backup?, ?Backup/Restore?, ?Data Backup?, and there may be other program names as well. To begin the backup:

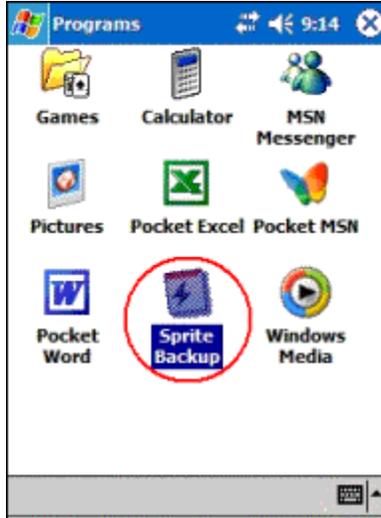
1. Close all other programs.
2. Then tap on ?Start?, ?Programs?, and then backup program icon.
3. Some programs may have a simplified option giving you only two choices initially, ?Backup Now? or ?Restore Now?. You may tap on ?Backup Now? to begin the backup. Here may be an ?Options? menu choice at the bottom, which will allow the user to see a menu of folders and files, and choose exactly what data to backup by placing and removing checks in file boxes.
4. For programs that do not have simplified options, or if you choose the ?specific files? option, place a check in the box next to each file, program, or folder you wish to have backed up. By default, all the boxes are usually checked and you may have to remove some.
5. Make sure you always back up the ?Registry? of the Pocket PC. It often listed last, under the last folder, in the backup files lists.
6. To restore a Pocket PC, go back into this program menu, or select ?Restore Now? or a similar program icon under programs, and follow the directions on the screen to restore your Pocket PC.

The advantage of this method of backup and restoration is that it can be done almost anytime and anywhere. You do not need to be at your desk. Simply by connecting an AC or DC power adapter, the user can get the unit running again and easily restore the lost programs and information, allowing execution of the PEAC-WMD application.

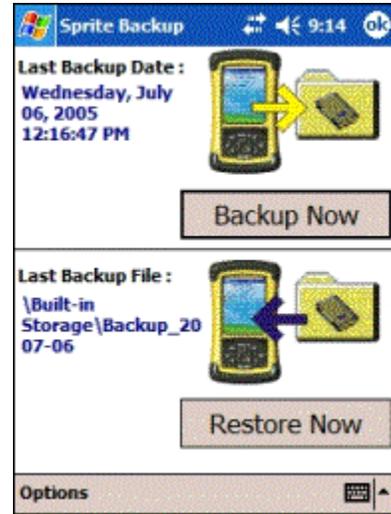
One advantage of the TDS Recon, a popular rugged PDA, is that it will automatically prompt the user to restore the unit when the power is restored after a power loss. There are some disadvantages, however. The backup files take up limited volatile memory space on your Pocket PC. If the Pocket PC is used for many different purposes (email, calendar, notes, contacts, other programs, etc.), there may not be enough non-volatile memory to back up all the important information. Some of the Pocket PC-based backup programs will look like the following images.



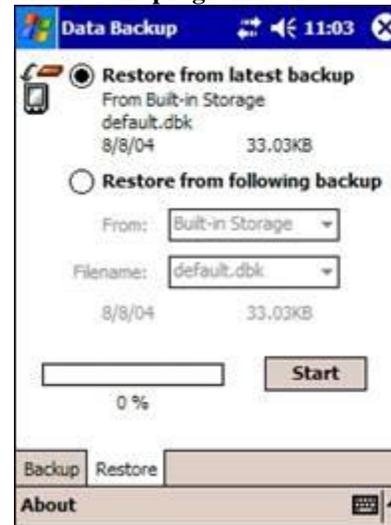
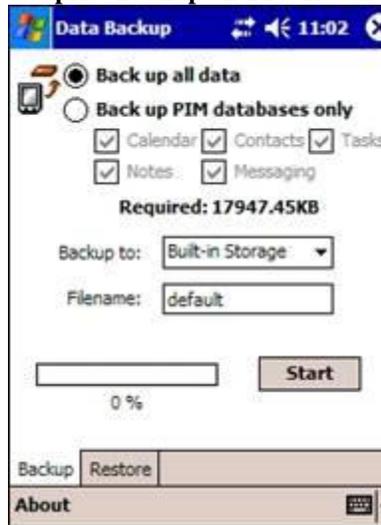
iPAQ Backup program icon



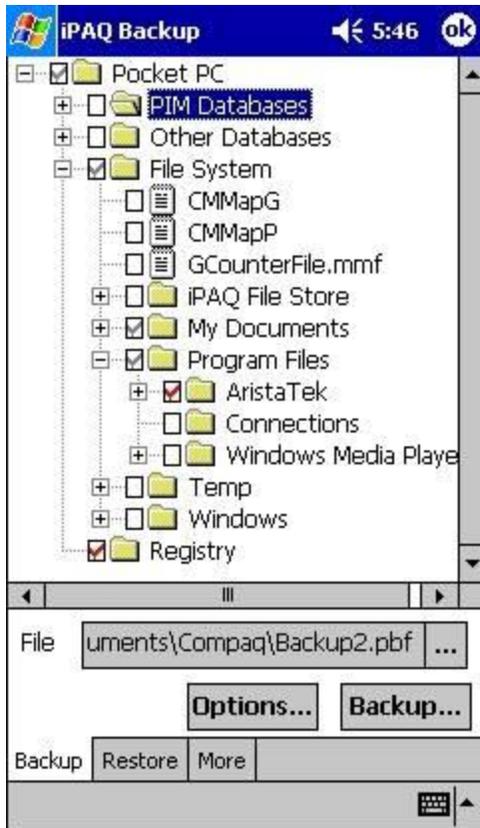
Sprite Backup on TDS Recon



and how the program looks.

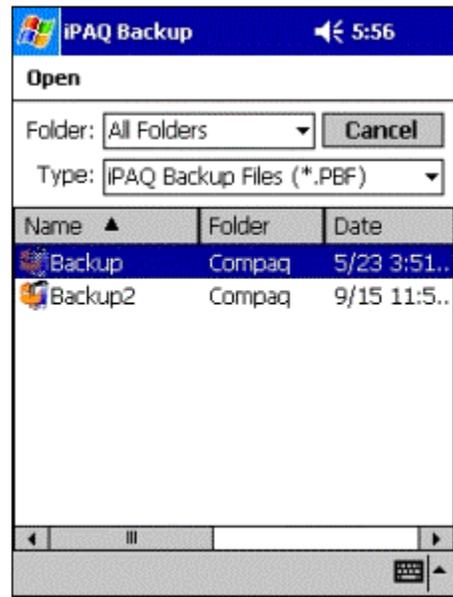


The Dell ?Data Backup? icon, how the program looks, and the ?Restore? tab screen.



On the left is the menu that is found in many backup programs, with the essential files and folders checked.

On the right is how the backup program looks on many HP iPAQ units.



Using the backup and restore functions can save the user a lot of stress and difficulty. Pocket PC's consume power even when the display is turned off. Many first-responders use Pocket PC's that are stored away in vehicles or on a shelf until they are needed,

without being plugged in to be charged. All Pocket PC's, if not being used, should be kept plugged into a charging cable or cradle.

### Closing the PEAC-WMD Program Properly

People who use computers regularly are used to closing program windows using the [  ] in the upper right corner of the program. Programs on Pocket PCs do not necessarily work the same way. They usually do have an [  ] in the upper right corner, but tapping on that icon does not close the program.

That is the case with the PEAC-WMD program. Tapping on the [  ] appears to close the program, but it does not. It only minimizes the program. This means it is still running in memory, and can make other programs run more slowly. To close the program properly, tap on the black and white ?File/Menu? icon [  ] in the lower left corner of the screen. Then tap on ?Exit?.

To see if programs that are running minimized and to close them, tap on "Start", "Settings", tap on the "System" tab, the "Memory" icon, and on the "Running Programs" tab. You can then see the programs that are running. You can tap on a program and the on "Activate" to open its program window, or tap on "Stop" to close it, or on "Stop All" to close all programs.

The user should also remember that the PEAC-WMD program automatically creates results and log files each time the program is used. So closing the program does not necessarily mean that information from the program is lost. But that is a topic for another article.